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#### BEFORE THE

## CALIFORNIA ENERGY COMMISSION

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

CALIFORNIA ENERGY COMMISSION

ART ROSENFELD HEARING ROOM, FIRST FLOOR
1516 NINTH STREET

SACRAMENTO, CALIFORNIA 95814

TUESDAY, JUNE 14, 2016

Reported by: Susan Palmer

#### APPEARANCES

## Commissioners Present

Robert B. Weisenmiller, Chair Karen Douglas David Hochschild Janea A. Scott

## Staff Present

Cody Goldthrite, Secretariat

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	Item	
Paul Jacobs	1	
Jennifer Martin-Gallardo	2	
Courtney Smith	2	
Gabriel Herrera	2	
Mary Dyas	3 3	
Kevin Bell		
Susan Cochran	4	
Joseph Douglas	4	
Elena Miller	4	
Joseph Merrill	5	
Sylvia Bender	6	
Larry Froess	7,	8
Ingrid Neumann	9	
Amir Ehyai	10	
David Ismailyan	11	
Kadir Bedir	12	
Christopher Jenks	13	
Larry Rillera	14	
Susan Wilhelm	15	
Jeffrey Doll	16,	17
Andrea Gough	18	
Consuelo Sichon	19	
Kevin Mori	20	
Yu Hou	21,	22
Timothy Smith	23,	24
Rajesh Kapoor	25	
Avtar Bining	26	
Kourtney Vaccaro	29	
Rob Oglesby	30	
Alana Mathews	31	

#### APPEARANCES, continued

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## I N D E X

# Proceedings

1100000.1.190				
Items				
1.	CONSENT CALENDAR	1		
2.	ENERGY COMMISSION COMMITTEE APPOINTMENTS	9		
3.	BLYTHE ENERGY PROJECT	25		
4.	HIGH DESERT POWER PLANT	29		
5.	ASPEN ENVIRONMENTAL GROUP, Agreement 700-15-001	58		
6.	ASPEN ENVIRONMENTAL GROUP, Agreement 800-13-001	61		
7.	2016 BUILDING ENERGY EFFICIENCY STANDARDS RESIDENTIAL and NONRESIDENTIAL ALTERNATIVE CALCULATION METHOD (ACM) REFERENCE MANUALS	62		
8.	2016 PUBLIC DOMAIN RESIDENTIAL COMPLIANCE SOFTWARE, CBECC-RES 2016.2.0 and NONRESIDENTIAL COMPLIANCE SOFTWARE, CBECC-COM 2016.2.0	65		
9.	CITY OF DAVIS	69		
10.	DIGITAL ENERGY, INC.	71		
11.	NORESCO, LLC	75		
12.	NATIONAL PARK SERVICE	76		
13.	PACIFIC NORTHWEST NATIONAL LABORATORY	79		
14.	FREIGHT TRANSPORTATION PROJECTS at CALIFORNIA SEAPORTS	84		
15.	UNIVERSITY OF CALIFORNIA, BERKELEY	97		
16.	UNIVERSITY OF CALIFORNIA, MERCED	100		

# I N D E X, continued Proceedings Items Page 17. REDUCING COSTS FOR COMMUNITIES and BUSINESSES THROUGH INTEGRATED DEMAND-SIDE MANAGEMENT and ZERO NET ENERGY DEMONSTRATIONS 104 112 18. ADM ASSOCIATES, INC. 19. DEVELOPING THE SMART GRID OF 2020: CLEAN, SAFE, and HIGHLY INTELLIGENT 114 20. ADVANCING WATER and ENERGY EFFICIENCY STRATEGIES and TECHNOLOGIES in CALIFORNIA 117 21. NATIONAL AERONAUTICS and SPACE ADMINISTRATION 121 22. ICF INCORPORATED, LLC 125 23. UNIVERSITY OF CALIFORNIA, IRVINE 126 24. UNIVERSITY OF CALIFORNIA, SANTA CRUZ 128 25. 2016 INDUSTRIAL NATURAL GAS ENERGY 129 EFFICIENCY GRANTS 26. NATURAL GAS PIPELINE SAFETY and INTEGRITY MANAGEMENT RESEARCH GRANTS 132 27. MINUTES of MAY 17, 2016 134 28. LEAD COMMISSIONER or PRESIDING MEMBER REPORTS 135 29. CHIEF COUNSEL'S REPORT 142 30. EXECUTIVE DIRECTOR'S REPORT 143 31. PUBLIC ADVISER'S REPORT 146

	I N D E X, continued	
Proceedings		
Items		Page
32. PUBLIC COMMENT		(none)
Adjournment		153
Reporter's Certific	ate	154
Transcriber's Certi	ficate	155

## PROCEEDINGS

2 TUESDAY, JUNE 14, 2016 10:03 A.M.

CHAIR WEISENMILLER: Good morning. Let's start the Business Meeting with the Pledge of Allegiance.

(Whereupon, the pledge of Allegiance was stated in unison.)

CHAIR WEISENMILLER: Let's start the Business Meeting with a moment of silence in recognition of the Orlando event.

(Whereupon, a moment of silence occurred.)

11 CHAIR WEISENMILLER: Let's go back to the 12 Business Meeting.

In terms of today's meeting, Item 1a is pulled off the Consent Calendar. We will address as essentially right after the Consent Calendar.

16 COMMISSIONER DOUGLAS: I move the Consent
17 Calendar Items 1b and c.

18 COMMISSIONER SCOTT: Second.

19 CHAIR WEISENMILLER: All those in favor.

20 COMMISSIONERS: Aye.

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CHAIR WEISENMILLER: This Item passes then four to zero. Commissioner McAllister is not at today's meeting and so the basic note is he is obviously not voting on any of these items.

(Whereupon, the Consent Calendar was approved.)

CHAIR WEISENMILLER: So let's go onto the what used to be Item 1a, Delegation of Authority. Paul Jacobs, please.

MR. JACOBS: Good morning, Your Honor, Chair and Commissioners. My name is Paul Jacobs and I'm the Director of Office of Compliance, Assistance and Enforcement. I joined CEC in November, after 30 years at the ARB where I built their enforcement program and served as the chief of mobile sources enforcement.

The Energy Commission sets Appliance Efficiency Standards for many types of products, including lighting fixtures and lamps, plumbing products, home appliance, and consumer electronics. In January 2012 the Commission adopted Appliance Efficiency Standards for battery charger systems, which took effect on February 1st, 2013. These standards are expected to save 2200 gigawatt hours annually, which is enough energy to power 3500 California households each year.

I currently have 15 cases dealing with these standards, along with 10 other cases dealing with other Energy Efficiency Standards. We continue to test products at our test laboratory for compliance. In 2016 to date, 17 tests have been completed with 11 products failing and 11 are pending testing. In 2015, 13 products failed lab testing out of 34 tested. These failing products are

eroding the anticipated energy-saving benefits of the Appliance Efficiency Regulations, which are cornerstone of our mandate set forth in AB32 and SB350.

This morning before you is a proposed order delegating approval of settlement agreements to the Executive Director for cases involving violations of the Appliance Efficiency Regulations. The authority for this delegation is codified in subdivision (c) of Section 11415.60 of the Government Code, the Administrative Procedures Act. This delegation is needed for staff to effectively and efficiently administer the Appliance Efficiency Enforcement Program and the ongoing inventory of cases. In settling cases, staff is mandated under Senate Bill 454 of 2011 and the enabling Title 20 regulations adopted in July of 2015 to consider ten factors.

These factors include:

The nature and seriousness of the violation;

The persistence of the violation;

The number of violations;

The length of time which the violations occurred;

The willfulness of the persons responsible for

22 the violations;

The harm to consumers in the state that resulted from the amount of energy wasted due to the violation;

The number of persons responsible for the

violations; the efforts of the persons responsible for the violations to correct the violations prior to initiation of an enforcement action;

The cooperation of the persons responsible for the violations; and,

The consideration of the assets, liabilities, and net worth of the persons responsible for the violation to consider financial hardship application.

Without this delegation, staff will not be able to effectively and efficiently enforce the Appliance Efficiency Regulations, resulting in the loss of the anticipated energy-savings benefits prescribed in the suite of Appliance Efficiency Regulations covering 23 product categories. Additionally, industry supports fair and swift enforcement of these regulations to maintain a level playing field by weeding out unfair competition.

Staff will keep the Commissioners apprised of all settlements by ongoing status reports. Additionally, all settlements will be posted on our public webpage.

To summarize, this order is a delegation solely for cases under the Appliance Efficiency Regulations.

Granting this delegation will enable to staff to effectively and efficiently enforce the Appliance Efficiency Regulations, ensuring that the anticipated energy-savings benefits are achieved, which protect

consumers and the environment, and maintain a level playing field for the regulated industries.

I ask for your approval of this item and I'm happy to answer any questions.

COMMISSIONER DOUGLAS: Commissioners, I wanted to speak in support of this item. I have been meeting with Paul and a number of other staff involved in our enforcement and compliance activities across different divisions as well semi-regularly for some time. I want to particularly thank Paul for the great work he's done since coming onboard with a specific -- and he is focused on a broader set of issues than the Appliance Efficiency Standards, but he has in particular brought a tremendous amount of expertise and energy to helping us get that program really underway on the compliance and enforcement side.

And this came out of a meeting I had with him and the Executive Director and some others, and they were in particular suggesting this way of action because it's consistent with the way, for example, ARB and other agencies tend to handle settlements. It's allowed under the APA. It provides a way of handling larger volumes. It's one thing for one or two settlements or some small number of settlements to come to the Business Meeting, but in this case given the number of different products and the

number of different models that are covered by our Appliance Standards, even with relatively high levels of compliance with our standards, we could still be looking at significant volumes of settlements.

And so given, as Paul mentioned, the importance of dealing once we are in settlement discussions with a company whose product has not passed our standards, being able to bring those to a close in a speedy and efficient manner is also really important. It's important to us and it's important to the industry.

As Paul mentioned, settlements, we would have transparency, settlements would be available on the website for the public. So I think this is an important measure for the maturation, really, of this new program and our implementation of this new authority. So I recommend this to your approval.

COMMISSIONER SCOTT: I had a question -- I am also supportive of this item -- for Paul, and just to say how glad we are to have your expertise here at the Energy Commission as we go forward with this program. Can you just give us -- and you talked about this a little as you spoke -- a little bit about how you're planning to implement and if there are things that are ordinary how you will make sure that the Commissioners are aware?

MR. JACOBS: Sure. Well, in terms of

implementation, we'll continue our testing program and focus in on high-energy-consuming products. And once we identify those, we'll want to take swift and effective enforcement action to immediately bring the company into compliance — that's our number one goal — then take a reasonable penalty based on their ability to pay and those other factors I covered to establish that level playing field.

I can tell you from my many, many years of doing this at the Air Resources Board, industry fully supports enforcement because it ensure the good players that there is a policing of the bad players and, as a result, we're going to have a fair level competitive environment.

COMMISSIONER SCOTT: Thank you.

I'm also open certainly to this approach, but just whether we ought to consider a certain size threshold above which it would come to the Commission. For example, our first settlement was with this vacuum, it was I think a million dollar settlement. I'm just curious. Your thoughts on that, Commissioner Douglas.

COMMISSIONER DOUGLAS: I think that rather than establish a threshold, the delegation order as I understand it does enable staff to choose to bring something to the Commission. And based on their judgment, if for example a

settlement presents novel issues and they're not certain, that it would be within realm of things that the Commission would support, it presents a policy issue, it may be out of proportion in terms of size to other settlements for one reason or another, they would have the option of bringing that forward.

And this does not mean that staff has to operate in a vacuum in terms of Commissioner interaction either. Obviously without going to a business meeting, they can't talk to all five of us together, but they could certainly go to, for example, the Lead Commissioner for Efficiency or they could go to me in my role of helping shepherd along some of our Compliance and Enforcement issues, or they could go to the Chair and get a sense of whether this is the sort of item that should be brought forward to the Commission. But many, many, many of these settlements are likely to be pretty cookie cutter in approach really, especially as the program gets going and we get larger numbers of settlements in.

CHAIR WEISENMILLER: I was just going to note that in the PUC context one of the particular reforms for enforcement of gas-safety issues was just telling the staff to just do it, do a fine, don't bring it to the full commission and go through all that. At some point that meant people tended to say it was too much hassle, it took

9 1 It was this immediate reaction on enforcement. too long. 2 COMMISSIONER DOUGLAS: If there are no other 3 comments or questions, I'll move Item 1a. 4 COMMISSIONER HOCHSCHILD: Second. 5 CHAIR WEISENMILLER: All those in favor? 6 COMMISSIONERS: Aye. 7 CHAIR WEISENMILLER: This again passes four to 8 zero. 9 (Whereupon, Item 1a was approved.) 10 CHAIR WEISENMILLER: Let's go onto Item 2, Energy 11 Commission Committee Appointments. Kevin -- or actually go 12 ahead. 13 MS. MARTIN-GALLARDO: Good morning, Chair 14 Weisenmiller and Commissioners. I am Jennifer Martin-15 Gallardo with the Chief Counsel's Office. I'm before you 16 this morning to ask that you assign a committee to hear and 17 take action on a letter of appeal from the Los Angeles Department of Water and Power, and any subsequent RPS 18 19 certification eligibility, appeals, motions, or requests 20 filed by LADWP's seeking action by the full Commission. Briefly by way of background, the California 21 22 Renewables Portfolio Standard, also known as the RPS, was 23 established in 2002 and has been periodical modified over 24 the years. Under the RPS statutes, all sellers of

electricity in California, including publicly-owned

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utilities such as LADWP, are required to procure a portion of their electricity retail sales from eligible renewable resources.

Procurement from a renewable facility cannot be counted towards an entities' RPS obligation unless the Energy Commission has certified the facility as RPS eligible. The Energy Commission's Renewable Portfolio Standards Eligibility Guidebook, which gets updated and modified from time to time, describes the eligibility requirements and certification process. To qualify for RPS certification, a facility must use one or more eligible renewable resources. Biomethane is an example of an eligible resource, and the Commission's Guidebook editions have specified the criteria that must be satisfied for a facility to qualify for RPS certification using biomethane.

Turning now to the LADWP Appeal. Between 2011 and 2014, LADWP and Commission staff were engaged in communications regarding RPS certification eligibility for the Scattergood, Harbor, Valley, and Haynes Generating Stations using biomethane procured from 2009 contracts that LADWP had entered into with Shell and Atmos. Staff ultimately notified LADWP that the facilities could not be certified under the 2009 contracts. LADWP then asked the Commission's Executive Director to reconsider staff's determination. The Executive Director subsequently

affirmed the staff's denial determination.

LADWP has timely filed an appeal of the Executive Director's determination. And, pursuant to the Commission's regulations, the Commission Chair consulted with the Chief Counsel's Office and determined that the LADWP's appeal meets the basic pleading requirements specified in the RPS Guidebook. This matter is now before the full Commission for possible assignment of a committee to hear and take action on the appeal and any other certification eligibility motions, requests, or appeals that LADWP might submit seeking action by the full Commission.

After this agenda posted, LADWP submitted written comments asking the Commission to clarify the scope of the language in the proposed order. Representatives of LADWP are here today and are better able to explain the requests for clarity. After you hear from LADWP representatives and possibly staff, I'd be happy to answer any questions that you have.

CHAIR WEISENMILLER: Thank you.

21 May I ask LADWP's two representatives to come to 22 the table?

In the interests of time, if the staff wants to come up also, that'd be fine.

Please sit down. Introduce yourself.

MS. CHUA: Good morning, Commissioners. Pjoy Chua, Regulatory Compliance Manager for LADWP.

MR. LEBRON: Good morning, Commissioners. Felix Lebron, Deputy City Attorney for the City of Los Angeles.

CHAIR WEISENMILLER: Good morning. Go ahead.

MS. CHUA: LADWP would like to thank the California Energy Commission for their attention to this matter. LADWP would also like to thank the CEC staff for their effort and diligence in working very hard with our staff in the past several months. However, we have reached an impasse. At this point, bringing this matter to the Commission is our final recourse to resolve this critical issue with the CEC. We appreciate the opportunity to work on this further in another avenue.

the early 2000s and has guided the adoption of increasing levels of renewable energy. LADWP is committed to a renewable energy policy that seeks to boost the amount of renewable energy provided to our customers. The longterm renewable goals are to achieve 25 percent by 2016, 33 percent by 2020, and 50 percent by 2030, which is consistent with the rest of California utilities.

LADWP has invested over one billion dollars in developing renewable energy and in 2010 was among the first California electric utilities to achieve 20 percent

renewable energy delivered to our customers.

All of the renewable energy that was counted towards achieving the 20-percent RPS target was fully tracked and met the governing rules and guidelines in place at that time. LADWP is supportive of the State's effort to create clarity and consistency in the applicability, accounting, and reporting of California's leading renewable energy legislation. This is a complex and very significant issue. RPS is important to the City of Los Angeles, to the CEC, and to the State. Therefore, it is vital for the Commissioners to ensure that this is handled properly and expeditiously. We look forward to continuing a healthy relationship with the CEC as we move towards 33-percent and 50-percent RPS.

MR. LEBRON: Felix Lebron. A few points I'd like to make to the Commission. First is that the City supports the delegation of the biomethane appeal to a subcommittee. We think that will be helpful for helping to resolve and adjudicate the legal and factual issues particularly regarding statutory construction under Senate Bill X12 and as it applies to biomethane, Assembly Bill 2196. I also would note that the Commission may want to consider, for purposes of the committee, using a hearing officer just because of the scope of the evidence, anticipated expert evidence dealing with natural gas pipeline transportation

standards under the Natural Gas Act and for transportation regulations.

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The second point that I wanted to address is the point that was raised in LADWP's comments dealing with the request for clarification. LADWP supports the proposed order in terms of delegating to the committee that's formed the assignment for resolving any future or subsequent RPSrelated motions or appeals directly to the subcommittee. The question that we raised regarding clarification is based on a motion that LADWP intends to file in the near future seeking guidance and an adjudication from the committee regarding issues of statutory interpretation and construction, and legislative intent between Senate Bill X12's grandfathering provisions and how those were meant to apply to publicly-owned utilities, legacy resources that were under the voluntary program before Senate Bill X12 that became mandatory in the middle of the first compliance period.

While this legal-interpretation issue has application to a number of resources, it's of particular importance for LADWP's procurement from British Columbia small hydro facilities under a contract in which LADWP entered into in 2007 which expired in 2011, about two to three weeks after SBX12 became effective. So as to this particular issue we're seeking clarification because the

language in the proposed order says reverse future RPS certification eligibility appeals, and this is not per se a certification issue, but it does go to the eligibility of the procurement from BC Hydro for the period from before SBX12 became effective, so effectively 11 months in 2011.

And so, just to be clear, we're not asking the Commission to make any ruling here. This is just to seek clarity that we can file the motion before the subcommittee because to the extent that the proposed order is ambiguous, it might be just an issue of putting a comma between "certification" and "eligibility." We think now would be the appropriate time to clarify that so that we can bring the motion, and staff would have an opportunity at that time to respond as to whether or not they thought the motion was proper or on the merits.

I would say that in terms of the resolution of the motions, there is significant overlap between the statutory construction issues that I just mentioned and the biomethane statutory construction issues, which would be referred to the committee, so in terms of conservation of resources and achieving an efficient resolution, it would make sense to hear these issues at the same time because of the overlap.

I'd like to thank the Commission for the consideration. I also want to thank both Executive Director

Oglesby, the RPS staff and their Legal Counsel Mr. Herrera for working very closely with the Department not only over the last six months on the biomethane issue but really going back nearly five years in terms of helping LADWP to successfully integrate its renewables program into the State's RPS program under SBX12.

This is a very important issue for the City of
Los Angeles which, as my colleague noted, has invested over
a billion dollars in its renewables program, and also very
important for LADWP's ratepayers. So we thank you for your
consideration and time this morning.

CHAIR WEISENMILLER: Thank you.

Staff, any response?

MS. SMITH: Good morning, Chair and
Commissioners. I just wanted to let you all know that you
may be aware that staff are in the process of verifying
eligibility of RECs for all local publicly-owned utilities
as part of Compliance Period 1. And, in a letter dated
June 3rd, 2016, Energy Commission staff provided LADWP with
an update of staff's preliminary eligibility determination
for Compliance Period 1 under the RPS Program. And
explained in this letter there are a handful REC claims
that have been made by L.A. that staff have found
ineligible, one of which is the eligibility of BC Hydro,
which Felix mentioned earlier. Certainly staff believe

that the process for creating the RPS Eligibility Guidebook that we go through here at the Commission appropriately addressed statutory interpretation of SBX12, however if the committee decides to entertain these other eligibility issues beyond biomethane, it is up to it to do so.

MR. HERRERA: Good morning, Chair and Commissioners. Gabriel Herrera with the Energy Commission's Legal Office. Just a couple points.

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Some of the issues that L.A. could possibly bring forward in a future request or motion I speculate are issues that L.A. has raised before in the past in the context of both the rulemakings for the Energy Commission's adoption of POU RPS regulations as well as the RPS Certification Guidelines. So while I can't speculate exactly what the nature or substance of those future requests or motions might be from L.A., I would think it appropriate for any assigned Committee to decide that perhaps they will not entertain those requests because the Commission as a body has already fully addressed those issues as part of these other rulemaking proceedings, but I welcome the clarification that L.A. has sought just to make sure it's clear that they are not precluded from moving forward with a future request or future motion. But this order would not direct the Committee to automatically entertain that motion. And maybe Chief Counsel would speak to that.

CHAIR WEISENMILLER: Maybe Chief Counsel would like the last word. Jennifer.

MS. MARTIN-GALLARDO: Yes. I would like to point out that under the Warren-Alquist Act, Section 2511 does allow and provide for anything that is assigned to a committee those issues and items also under our regulations or anything brought to the committee can be kicked back to the Commission for full consideration, and also any order from the Committee would need to be approved by the Commission in order for it to be an order of the Commission.

So, yes, the concerns that perhaps something would go to the Committee, not be precluded under this proposed order, could go to the Committee. And if the Committee reviewed whatever the motion requests, the appeal, if the Committee found that it was something that needed to be heard by the full Commission, it could be at that point.

CHAIR WEISENMILLER: Okay. Thank you.

Let's start the discussion among the

Commissioners. I want to at least start out with just a

couple of quick observations. First of all, obviously

issues can go, an appeal can go to the full Commission or

to a Committee. My decision was to go to a committee. I

think the issues are sort of complex enough that it would be burdensome for the Commission as a whole to consider these.

Now that being obviously as the case unfolds, there may well be issues that come back to the full Commission for ratification, but at least at this point just on that Committee-Commission question, that's pretty straightforward.

I think in terms of the Committee itself, I will be the presiding member, Commissioner Hochschild will be the associate member. I remember back in the old days, some of the guidelines that we're now talking about, being involved in the development of those and adoption of those and having discussions with LADWP at the time, so. And I think these are certainly important issues and significant issues with LADWP, that certainly it's important. And these, frankly, are I think the first time we've had to deal with these types of issues on compliance on the RPS issues, and so we really want to make sure we do it right.

Hopefully after we march through this effort it will be a little bit easier in the future. And I think in terms of just talking generally about structuring the case, my hope would be that we can identify the issues which are legal in nature and the issues that are factual in nature. And the issues that are legal in nature, we will establish

briefing schedules for that. And obviously on the factually issues, we will schedule hearings on that with testimony by competent witnesses. So, again, I think the issues are relatively complex but significant, and it's important we get these right.

Commissioner Hochschild.

with everything you said. And, just to state the obvious, that in a piece of legislation this complex and substantial and consequential, I mean it's to be expected these issues come up. And we will dig into it thoroughly. I don't think we need to belabor any more of the details at this point.

MS. VACCARO: Chair Weisenmiller, before any motion is made or there is further comment, I just wanted to make sure that the Commission does address the very specific question that was raised by LADWP as well, which relates to whether or not the committee would be able to hear any such motion that L.A. would file.

CHAIR WEISENMILLER: Yeah. My impression looking at the language of the order is that we could. The question whether it needs any clarity, again I think the issue for the staff on some level is, is this ripe, is the BC Hydro issue ripe or not, but certainly again I think I would just as soon have the committee take a comprehensive

approach and resolve the issues moving forward and do it in an expeditious fashion. I.e., to the extent there are common issues here, I would just as soon have the record cover those common issues.

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COMMISSIONER DOUGLAS: I just wanted to speak in support of that. I think it is really valuable for this Committee to be provided the delegated authority to deal with the suite of eligibility issues. And I don't think either of you want to be in a situation of parsing the order and trying to decide whether a certain issue fits within it or doesn't. Whether BC Hydro is ripe today does not speak to whether it will be ripe in two months, for example, in these proceedings. While I know you will endeavor to be as efficient as possible, you know the issue may well ripen over the course this proceeding, and it will be an efficiency to everyone involved I think to know who to bring matters to. At least as a matter of first impression, of course the committee could decide it's not ripe or the committee could decide it prefers to brief it back to the Commission for whatever reason you chose to.

So I guess I have a question for Jennifer or for Kourtney, if you'd like, which is in your view do you think it would be beneficial to clarify the order and do you have language whether the extra comma suggested by LADWP or some other version of language that would help do so?

MS. MARTIN-GALLARDO: It might be a little difficult to sit here and decide what the best solution is. We could certainly take some time and come back with language of the order, or we could provide some suggestions or take a suggestion.

MS. VACCARO: I think it could be we certainly could go back and you could meet with staff and L.A. or it could be as simple as putting the word "or" between "certification" and "eligibility" or interlineating and just taking out the word "certification" and leaving it with "eligibility." That seems as if that might address that.

CHAIR WEISENMILLER: Yeah. Okay. So we have two. Any comments from L.A. or the staff, or do we need to basically send folks off to talk while we go onto the next item?

MR. LEBRON: Felix Lebron again. I think that either of Ms. Vaccaro's proposals are fine. Our main purpose was to confirm with the Commission its understanding with respect to the scope, and it sounds like there appears to be consensus that these issues it would make sense to have the assigned committee review them, understanding that there may be issues raised by staff as to whether the motion is ripe for adjudication or not. What we're just seeking is to make sure that we can file it

before the Committee and understanding that whatever substantive or procedural issues would be raised and addressed by the Committee. So I think the intent of the Commission has been made clear. And I think either of the proposals by staff counsel would be fine.

CHAIR WEISENMILLER: Okay. Kourtney, Gabe.

MS. SMITH: Yeah. Just one addition on whether or not the issue is ripe. Just so you know, staff's determination on BC Hydro is not pending additional information from L.A.

MR. HERRERA: Again, my earlier comments were just intended to clarify that the Committee assigned could in fact entertain a motion or a request by L.A. There's no motion or request at this time, so the order wouldn't direct the Committee to reevaluate a particular issue.

It's just setting up a process whereby the Committee at some point in the future can consider a motion or can consider a request by L.A. to look into it, an additional issue.

CHAIR WEISENMILLER: That's correct. And I think both parties are on notice that as we brief some of the issues, you should be briefing it keeping in mind that both issues could be affected by the same arguments.

COMMISSIONER DOUGLAS: So, Commissioners, I guess we have a very small decision to make which is which of

Kourtney's suggestions. The addition of the word "or" would seem to me to handle it.

CHAIR WEISENMILLER: Well, let's do it.

COMMISSIONER DOUGLAS: So let's do it. And we'll see if there are any other comments.

COMMISSIONER HOCHSCHILD: Do we need to take a vote to add the word "or"?

COMMISSIONER DOUGLAS: Would you like to make a motion or should I?

 $\label{thm:commissioner} \mbox{COMMISSIONER HOCHSCHILD:} \mbox{ I would move to adopt} \\ \mbox{Ms. Vaccaro's suggestion that we --} \\$ 

12 COMMISSIONER DOUGLAS: Oh, okay.

13 COMMISSIONER HOCHSCHILD: Or do you want to
14 restate the proposal precisely?

COMMISSIONER DOUGLAS: I think we should adopt both the establishment of the committee and the members, and the order with adding the word "or."

COMMISSIONER HOCHSCHILD: All in one?

Okay, can you restate the proposal, Kourtney?

MS. VACCARO: So I think what your motion would be is that you would be moving approval of Item 2a with a correction to the proposed order so that the fourth full paragraph of the proposed order would now instead of saying "certification eligibility," it would say "certification or eligibility"; and that the third part of that motion would

1 be that you would be moving Chair Weisenmiller as the 2 Presiding Member and Commissioner Hochschild as the 3 Associate Member. 4 COMMISSIONER HOCHSCHILD: What she said. I would 5 make that motion. 6 COMMISSIONER DOUGLAS: Second. 7 CHAIR WEISENMILLER: All those in favor? 8 COMMISSIONERS: Aye. 9 CHAIRMAN WEISENMILLER: So this motion also 10 passes four to zero. 11 (Whereupon, Item 2a was approved.) 12 CHAIR WEISENMILLER: Thank you. 13 MS. MARTIN-GALLARDO: Thank you. 14 CHAIR WEISENMILLER: Thanks for being here. 15 MR. LEBRON: Thank you, Commissioners. 16 CHAIR WEISENMILLER: Let's go onto Item 3, Blythe 17 Energy Project. Staff. 18 MS. DYAS: Good morning, Commissioners. My name 19 is Mary Dyas and I'm the Compliance Project Manager for the 20 Blythe Energy Project. With me this morning is Kevin Bell, 21 Senior Staff Attorney, and technical staff is also in 22 attendance. 23 The Blythe Energy Project, or BEP, is a combined-24 cycle, natural gas-fired, 520-megawatt facility that was 25 licensed by the Energy Commission in March 2001 and began

commercial operation in July 2003. The facility is located on a 76-acre parcel in the City of Blythe, Riverside County, and about five miles west of downtown Blythe.

On August 18th, 2015, Blythe Energy, Inc. filed a petition with the Energy Commission to: Reduce hourly and annual particulate matter, or PM10, mass emission limits; reduce the annual natural gas fuel sulfur content limit; and reduce the annual oxides of sulfur mass emission limit from the conservative emission limits required within the license to more accurately reflect potential emissions from the facility based upon operating experience and test data.

Previously, on July 8th, 2015, a petition to amend was approved by the Energy Commission to reduce BEP's annual emissions of oxides of nitrogen, carbon monoxide, and PM10/PM2.5 so that the facility would no longer be considered a major stationary source under federal Prevention of Significant Deterioration regulations.

Because both BEP and the adjacent proposed Sonoran Energy Project (licensed as Blythe Energy Project Phase II) are under the common control of AltaGas Power Holdings (U.S.), the two facilities are considered a single stationary source under Mojave Desert Air Quality Management District regulations. Under these regulations, the proposed reductions in permitted annual PM10 at the BEP can only be used to offset emission increases that occur

simultaneously, that is, as part of the same permitting action by the District.

The PM10 reductions that are being proposed in the August 2015 petition to amend could not be included in the petition that was approved on July 2015 because the air permit application for the proposed Sonoran Energy Project had not yet been filed.

The changes proposed by the August 2015 petition would modification existing Air Quality Conditions of Certification AQ-T2, T4, T6, and T7, and add Condition of Certification AQ-T7a to make them consistent with proposed changes to the Air District permits.

A notice of receipt was mailed and docketed and posted to the web on August 27th, 2015. Staff's analysis was mailed and docketed and posted to the web on May 6th, 2016. No comments have been received.

Staff has review date petition to amend and determined that the changes proposed in the petition to amend comply with the requirements of Title 20, Section 1769(a) of the California Code of Regulations. The BEP would continue to comply with all applicable federal, state, and Mojave Desert Air Quality Management District air quality laws, ordinances, regulations, and standards.

No change in annual fuel consumption will result from these proposed changes and, therefore, there would be

no change in greenhouse gas emissions as a result of the proposed petition to amend.

At this time staff recommends approval of the proposed revisions to the Air Quality Conditions of Certification.

CHAIR WEISENMILLER: Thank you.

Applicant.

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MS. CASTANOS: Good morning. Kristen Castanos, counsel for the project owner. I want to thank staff for their analysis. We concur with their conclusions. And if the Commission has any questions, our technical consultants are available to answer them.

CHAIR WEISENMILLER: All right. Does anyone, either in the audience or on the phone, have any comments?

Okay. Let's go to the Commission discussion.

Commissioner Douglas.

COMMISSIONER DOUGLAS: I just wanted to say briefly I have also reviewed the materials and recommend this to the Commission's approval, so I will move approval of Item 3.

21 COMMISSIONER SCOTT: Second.

22 CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

24 CHAIRMAN WEISENMILLER: This passes four to zero.

25 Thank you.

(Whereupon, Item 3 was approved.)

CHAIR WEISENMILLER: Let's go onto Item 4, High Desert Power Plant.

MS. COCHRAN: Good morning. I am Susan Cochran, the Hearing Officer assigned to assist the Committee in the proceedings on the amendment to the High Desert Power Plant.

The High Desert Power Plant is an 850-megawatt natural gas-fired, water-cooled plant located near Victorville and is operating under a license granted by the Energy Commission in 2000. Commercial operations began in 2003. The plant is located in the Mojave River Groundwater Basin, an adjudicated groundwater basin where the Mojave Water Agency acts as Water Master.

Under the 2000 Commission decision the High

Desert Power Plant was restricted to using State Water

Project water for its cooling systems. State Water Project

was to be used in two different ways. First, it could be

used directly from the State Water Project and, second,

HDPP could inject and only inject State Water Project into

the groundwater aquifer to provide a water bank to be used

during times when State Water Project was not directly

available.

The Energy Commission has since allowed alternative sources of water for cooling at the HDPP.

Beginning in 2009, HDPP was authorized to use recycled waste water from the Victor Valley Water Reclamation

Authority. In 2014 the Energy Commission adopted an order giving HDPP the ability to use groundwater obtained from the Mojave River Groundwater Basin. The 2014 grant to use groundwater from the Mojave Basin was limited to two water years. Water years run from October 1 to September 30.

Thus, the permission to use Mojave Basin groundwater currently expires on September 30 of this year.

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In November 2015 the petitioner filed its amendment requesting the permanent ability to use groundwater as a source of cooling water, citing inconsistent deliveries of State Project water and issues with the quality and quantity of the recycled water On January 13, the Energy Commission appointed available. a committee consisting of Commissioner Douglas as the presiding member and Commissioner Scott as associate member to conduct proceedings on the amendment. To date the committee has held a number of public meetings and status conferences, where information about the operations of the High Desert Power Plant, the Mojave Basin groundwater, and the impacts of various types of water use has been The complexities of this issue has led the Committee to recommend granting interim relief to allow the High Desert Power Plant to continue to use groundwater for

an additional water year, ending September 30, 2017.

The Committee's first recommended decision was filed on May 6th, and focused on amending conditions of certification, particularly Soil and Water-1, setting a maximum amount of water to be used annually and extending use of groundwater until September 30, 2017. The May 6th recommended decision also created a loading order for sources of water: State Water Project water, recycled water, and groundwater.

Consideration of the first recommended decision was originally scheduled for the May 17, 2016 Business Meeting. However, shortly before that Business Meeting, the petitioner and the staff filed comments on the May 6th committee recommended decision. The comments concerned:

One, the maximum amount of water that the High Desert Power Plant could use annually for cooling purposes; and, two, whether an additional process for groundwater banking, percolation, should be allowed in addition to injection. The Committee withdrew the first recommended decision from the May 17 Business Meeting and continued consideration of the granting of interim relief to today, June 14th.

In attempt to resolve the issues between the first recommended decision and the parties' comments, the Committee held a status conference on May 23. The status conference was ultimately continued to June 2nd. Based on

discussions at the May 23 status conference, the committee issued a May 27 revised recommended decision with three hallmarks: First, it amended Soil and Water-1, allowing the use of adjudicated groundwater until September 30, 2017; it set an overall cap on the amount of water to be used by the plant for cooling purposes; and eliminated the loading order that had been included in the May 6 committee recommended decision. It also added a new condition, Soil and Water-22 that authorized the High Desert Power Plant to percolate groundwater to increase the bank. That ability of percolate was limited to the earlier of the final resolution of the amendment petition, or to September 30th, 2017.

On June 2nd the committee held a continued status conference. The parties presented the committee with a stipulation containing their proposed changes on the three topics discussed at the May 27th recommended decision.

After due deliberation of the stipulation, the committee issued what is before you this morning, a revised recommended decision filed on June 10th, 2016.

In sum, the committee now recommends that the Energy Commission adopt the June 10th revised recommended decision that provides for:

One, allowing using of adjudicated groundwater as part of a loading sequence that includes recycled water,

directly-available State Water Project water; bank State Water Project water; and groundwater with recycled water as the primary source for cooling.

Second, it eliminated the maximum amount of allowed water use for cooling purposes, although the committee has indicated it will revisit that issue in the remaining proceedings. And,

Three, maintains the interim nature of the use of percolation, but extends that to September 30th, 2018, to allow the petitioner to obtain more favorable terms from the Mojave Water Agency regarding percolation.

Yesterday petitioner filed comments on this June 10th revised committee recommended decision, seeking a modification to Condition of Certification Soil and Water-22 regarding percolation. The committee thus recommends that the Energy Commission adopt the order adopting the June 10th revised recommended decision as the interim decision of the Energy Commission. I'm available for any questions or clarifications.

CHAIR WEISENMILLER: Thank you.

Let's start with applicant.

MR. HARRIS: Good morning. A pleasure to be here. Jeff Harris on behalf of the Applicant. My colleague Peter Keel, water expert, is also in the audience. On the phone, until we perfect the beam-me-up

method, is Mark Kubow, President of High Desert; and Frank Carelli, who is the Plant Manager and the man who ultimately has to live with all of us in our ways up here in Sacramento.

So appreciate the hard work of the Hearing Officer and her excellent summary.

This is in many ways a very simple project, though. It may not seem that way. You have been hit with both advocacy and obfuscation. All parties are participating in that, so it has gotten very complex. It is a very expensive docket there. But, at the most simple level, this is a natural gas-fired power plant, it has a high-capacity factor. It's located in a place that can provide grid reliability and it can allow for the integration of flexible renewable resources. It is, in sum, a power plant.

It was certified originally with a complete prohibition on recycled water. I didn't participate in that certification. And when my partner, Gregg Wheatland, told me that it was prohibited from using recycled water, I thought may be Gregg needed a nap, because if you're policy is on recycled water --but that's where this project started.

Things have changed since the turn of the century, and the project needs have changed. Basically,

what this project needs is certainty of water supply and it needs that certainty of water supply to be able to operate in the California ISO's day-ahead market and it needs that certainty of water supply to be able to go out and contract the facility long term. And it needs that certainty of water supply to prove to the CalISO that it's not a use-limited resource, it's available all the time.

How the project will actually operate versus the flexibility we need, those are two very different things, and something that I think is hard in this process to keep in mind. But we do need the certainty of water supply. We have to blend two or more water supplies to make this project work. Recycled water alone is not a sufficient quantity and it's not a sufficient quality. And, in addition, the project was not designed to run on a hundred percent recycled water. As I said, it was originally certified with a complete prohibition on recycled water.

If the project runs it helps keep the lights on, it provides low-cost reliable power, and it helps integrates renewables, and it has a heat rate that makes it a state of the art power plant in terms of efficiency. If it doesn't run, there are no impacts. There are no air emissions, there is no water use.

Today for me is really about expectations, and I kind of pride myself on being a bit of medium. I kind of

channel what I think is going to happen here. And today I'm a bit of a loss to know exactly where we're going to end up. And that to me is a bit concerning. My expectation as of last Friday is that we'd be ratifying an all-party stipulation.

There is before you in the record a stipulation between High Desert, the Energy Commission staff, and the California Department of Fish and Wildlife. That stipulation basically sets forth a compromise among all those parties and their interests that would allow us to move forward with some certainty for an additional year of groundwater use and the additional long-term ability to percolate groundwater. And long-term, all those parties I think I can represent will be that the solution for this project is to be able to percolate groundwater. We have the ability to percolate up to maybe 6,000 acrefeet of groundwater this year if we can get the authorization from you to do that.

Running as normal through injection, which is as it sounds, direct injection into the ground, probably a thousand acrefeet. So a sixfold difference there, and that really is what drove that stipulation.

I think before you today is a very important policy issue and one that I want you to think about as we move forward. And that policy issue is simply this: I

know each of you up there at some time have looked at me and said, you know, 'Mr. Harris, go get in a room with that's folks, talk about your interests, and work it out.' So we got in a room in Victorville, thank you to the City. We talked through these issues. We worked it out and we brought that back in the form of an all-party stipulation.

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My expectation again on that would be an approval and that we would move forward with that stipulation. And that's the policy issue that I think is really important for you to consider today. You go into a settlement with an expectation. You put your entire case on display. potentially educate other people about your interests and needs and potentially educate them in a way that they can use that against you should that settlement not be reached or should that settlement not be agreed to by the decisionmakers. You compromise your interests. You write it all done. You engage in the task of turning agreements in principle into agreements, which is no small task, and you take a potential schedule hit to put this all together. And at the end of the day now we're going to do that knowing that you faced a very real possibility that that entire settlement may be rejected.

The settlement and the stipulation is a negotiated whole. Each party gave some things. And now I think we're in a situation of knowing that we may end up

having parts of that settlement negotiated package basically taken and used and other parts left out. And that really in my opinion compromises the spirit of the stipulation process. So I think it's a very serious policy consideration for you today.

We have requested, as of yesterday even, that you return to that all-party stipulation. I think there are good reasons in this proceeding to use that stipulation as the basis to move forward. And I think there is a larger policy implication for this Commission, in all of your proceedings where you have parties, to think about that stipulation process and what the settlement might bring.

So, in the simplest terms, he said after a long-winded expectation here, we have two requests. Number one, — and these were in our letter from yesterday — approve instead of the order the all-party stipulation. I think that moves us very much forward. I think it moves the parties closer together. I think it's closer to where we ultimately end up in this case. That's our first request and our preferred outcome.

In the alternative, and we provided language to this, if you're going to move forward with the order we'd at least like to see some clean-up on new item 22, Soil and Water-22. That condition was not discussed by the parties, in fairness to the Hearing Officer and those who

participated in drafting it, because it was subsumed in the entirety within our stipulation. So there was no need to point out what we thought were concerns with that language. Well, here we are today, our second option would be to basically change the language of 22 to reflect an important distinction between injecting groundwater versus percolating groundwater.

As proposed in the order, the language is that the water may be accounted for or calculated in the same manner as injected water, pursuant to Conditions 4, 5, and 6. Well, again, there's a fundamental difference between injection of groundwater and percolation of groundwater. Injection, there are a limited, finite number of spaces where that water is put into the basin. The water has to be treated to a certain quality before it goes in. So our proposed language is that the water be calculated by MWA and the Mojave Basin Water Master like they do for every other project out there. So that may seem like a minor change, but it's an important one to provide us with some certainty. The language as written now, I can't tell how you would calculate credit for those percolations.

So, again, preferred outcome would be to go with the stipulation. The second outcome would be to go with our proposed language from Soil and Water-22. And this is all in Docketed Item 211795. This is our filing from

yesterday.

And, with that, I'll make myself available to answer any questions.

CHAIR WEISENMILLER: Okay. Let's go to staff.

MR. DOUGLAS: Good morning, Commissioners. My name is Joseph Douglas. I'm the Compliance Project Manager for the High Desert Power Project. To my right is Elena Miller, Senior Staff Counsel. And CEC staff is available for answering questions.

CHAIR WEISENMILLER: Okay. Intervenor, CDFW?

Please. Come up to the microphone, please.

MS. MURRAY: Nancee Murray. I'm here on behalf of California Department of Fish and Wildlife.

And we support the filing that High Desert made yesterday and I'm available for questioning.

CHAIR WEISENMILLER: Great. Any other public comment from anyone in the room?

Any public comment from anyone on the line?

Okay, so let's transition to Commissioners.

Commissioner Douglas.

COMMISSIONER DOUGLAS: So I've got some comments and I will try to be brief, but I may not be as brief as you might hope. So I wanted to make a couple of points about where we find ourselves today with this case, and the first point is that we actually are unlike most cases that

we bring to you, we actually have no evidence in front of us. So we have filings, we have assertions by parties, we have information that if it were received in the context of a hearing and adjudicated would be evidence, but we are doing this on the basis of status conferences and also with some referring back to the heavily-adjudicated decision that the Commission reached in 2000, approving this project.

We are bringing a proposal for interim relief forward to the Commission because there are issues presented with the long-term relief sought by the applicant that require adjudication, that require an evidentiary vetting of facts and determinations by the Commission with regard to the committee and then Commission with regard to specific issues. And at the same time the ability of the plant to use groundwater expires in September, September 30th of this year, so it's clear that we need to take action in order to enable the plant to continue operating. It would be at least during the pendency of the longer-term proceeding. Without interim relief, it's not certain if water that the plant needs for cooling will be available to it.

And there is at least some possibility that this plant could be one of a portfolio of solutions and resources that assists the state in maintaining

reliability, given the situation at Aliso Canyon. Again I will call it a possibility because we have information that has been presented to us that highlight that possibility. We don't have an evidentiary record that would enable us to make a finding to that effect.

I want to make sure that the Commissioners are aware that in the year 2000, when this project was certified, it was explicitly conditioned to only be able to use State Water Project water. Groundwater was not available to this facility and recycled water was not allowed for this facility. And those restrictions occurred because the plant is located in the desert; in the Mojave Water Basin, which was at that time experiencing decades of overdraft and was undergoing adjudication. And there was actually an adjudication approved not long after we approved the certification for this project.

Water was the most contested issue in this case and both in terms of the impact of this project, which uses wet cooling, on a water basin that was in overdraft; and also, and this I will say is a greater concern of the committee at this point, also the fact that it is located in a place where it could affect riparian habitat along a portion of the Mojave River, and this is the environmental issue that this committee needs to see addressed and particularly in the longer-term proceeding.

There is a mesquite bosque riparian habitat area near the project site. It's part of the Mojave River. one of the things that is a characteristic of this area is that the Mojave River in many places is actually an underground river. It's sustained and maintained by groundwater. And it does not reach the surface in very many places, especially in a perennial way. And so in this area the water which was underground hits a place called The Narrows where there is bedrock and it forces the water to the surface. And because you have this desert oasis with water on the surface, it supports a pretty significant number of endangered species or did in 2000 and probably Again, we don't have a record in front of us still does. where we have actual evidence that's been adjudicated, but species such as the Mojave ground squirrel and desert tortoise and a large number of avian species rely, as I understand it, reasonably heavily on this area. And I think this is why CDFW is an intervenor now. And this is why CDFW was an intervenor in the original proceeding.

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And in all the years that we have done siting cases and all the citing cases we have done, this is the only case that at least I have experienced where CDFW has intervened, so I think it probably helps underscore the level of importance of the resource from their perspective.

So we're interested and I'm interested in what is

the impact of this project on the riparian habitat. And that has to do with, to make it simple, that has a lot to do what's the source of the water the plant uses; if it's groundwater, where is it taken out and when; what water is either reinjected or percolated back into the ground; how is it done; what's the water source; where is it done.

And this all matters when you're thinking about the impact on the habitat because it could very well be that the water use and the water injection or percolation isn't balanced in terms of the project's impacts on the groundwater basin as a whole, which is really I think more of where Mojave Water Agency would be coming from in their perspective, but again we don't have evidence. I have not heard a word from them directly.

But that does not necessarily give me comfort that the water that is percolated into the ground in a certain place at a certain time is available three years later, therefore the plant can pump groundwater and there will not be an impact on this habitat. That's the sort of evidence that would be helpful to have.

Now what I will give you is that for the purposes of interim relief, and I have not had an opportunity to talk to the associate member on this case about this because we now have to notice meetings when we meet, and of course that was not possible between last night and today,

but I would be willing to live with the applicant's proposed Soil and Water-22 for the purposes of interim relief but with the very, very specific reservation that, from my point of view, I really want to see evidence that the time, place, source of water as it's taken out and as it's put back keeps the habitat whole. Of course it's not whole, you can also bring us evidence about how important the plant is, and that is something we would be very interested in considering as well.

So what the interim order that the committee developed provides the Commission, just so you know, and I've already said I'll live with what the applicant provided for the purposes of interim relief so that they can have some certainty, but in 2000 the Commission directed that a model be developed that took into account location and timing of water withdrawals and water injection, not percolation because they didn't really look at percolation, but there's at least locations of the proposed perc sites in that model, in order to determine when and how much and over what period of time --you know the real question you're asking is once you percolate or inject water, how long is it still there and when is it gone. And that's an answerable question, but it's one that I think this model was developed to address.

Of course I don't have evidence. Maybe the model

didn't work or maybe it did or maybe it's great and maybe it needs to be improved. That's the sort of thing we would vet. But it was vetted and it is a current requirement. It is a current part of the license.

So I can live with another approach for interim relief. I think we all share the goal of achieving interim relief, but I would be looking to the parties to provide information about the suitability of the model that currently exists and was developed for that purpose. And maybe if you have a little more time to vet it you'll either be more comfortable with it or less comfortable with it and we can work on that from there.

A couple other comments and then I really will be done.

I think I have probably underscored enough that we really want more information about the impact of the project on that habitat and this change in water use. In the proceeding in 2000, both the hearing officer and another intervenor in that case sought to ensure that we would never, ever allow any other water source, we would never, ever allow groundwater. We have a new project owner, we have new circumstances. Lo and behold, we have and we're really in a position now -- and we've allowed recycled water -- and we're in the position now of really having to look at how this mix of water sources impacts the

resource and we need to look at that for the long term.

I appreciate seeing analysis of that issue. Obviously one of the things that we lack that we usually have, even in pretty minor cases, is a staff assessment that forms the basis of the information that we deal with and of course is adjudicated. And so that would be helpful.

I want to make sure that I make clear that it's by no means obvious to me that the use of recycled water in this context is any less impactful than the use of groundwater in terms of the resource, the riparian habitat. We have policies and we have implemented policies for a long time encouraging the use of recycled water for a lot of reasons, because power plants are really good clients of recycled water. And when power plants combined with other uses come forward, recycled water plants are more likely to be built, and that stretches our water supply. And that's, in general, a good thing. But right now water that is produced by the facility producing recycled water appears to a large degree support the habitat.

So as we look at impacts, I'll just say that it is not necessarily obvious that a policy that we can say if we succeed in getting the applicant to use, say, a hundred percent recycled water that may be good for the recycled water part of a policy, but we also have to look at other

impacts. And it's not clear to me that it's less impactful. And we have, I think, an intervenor in this case arguing that it's more impactful; and that's another issue that we will need to adjudicate going forward.

And since I want to be equal opportunity with my comments here, I'll just say to the CDFW: We really appreciate your participation. We really would like to see technical involvement by CDFW, particularly in terms of project and specific impacts on a specific area. The committee, unless -- I won't even say "unless," but the committee is not terribly interested in overall water balance basin wide. I mean you're welcome to bring evidence in the proceeding, but there is an adjudication. We're really, really focused on impacts of a plant in a specific location on a specific habitat.

So those are my comments. They're not short.

But I think that, as Mr. Harris is noted, it's unusual for us not to accept a stipulation. Usually we will of course be happy to get a stipulation because it means the parties have worked issues out and we can be fairly sure that they have all to some degree protected the interests that are of most importance to them. And it reduces the work involved for us, provided that we have the confidence that we have a full record and the issues have been fully vetted. And I think in this instance I really want to be as light touch

as we can for interim relief and just be sure that we have a robust record for the longer-term issues. And so the stipulation in some areas went further than I was comfortable going right now. I'm glad we have it. It gives me confidence that the parties will work together constructively to help us resolve and clarify issues, and that's great because our first couple status conferences I wasn't convinced that the parties would be stipulating about much of anything. And it's very good to see the parties coming together and working out issues. And, at the same time, I think the committee at this point has gone about as far as it's ready to go, and I'm speaking for myself maybe, but Commissioner Scott can add in.

COMMISSIONER SCOTT: So I will pretty much echo everything that you have heard from Commissioner Douglas. I wanted to just underscore a couple of things. I won't underscore all of the points, but I am also interested in the impact of the project on the riparian habitat and the change in water use and how that might impact it.

I agree that there is a need for additional evidence as we continue and I'm wanting to see the staff draft encouraging CDFW to provide us with some technical analysis -- I mean a staff assessment, and having CDFW provide us with technical assessment. To echo kind of a light touch, we wanted to do on interim relief and note

that I am also okay with the applicant's changes to Soil and Water-22. And I'll just leave it at that.

COMMISSIONER DOUGLAS: So I've maybe said a lot. Should we see if either other Commissioners or the parties would like to add anything at this point?

Parties, any other comments?

MS. MILLER: Commissioners, I want to thank both members of the committee. This has been a difficult task, and we appreciate that you have stayed with us. A lot has happened in the last month. There was a status conference in this room. And the stipulation that you now have all read was the result of a discussion that came after that status conference. And then you saw us again in a follow-up status conference.

A great deal of work was done. We appreciate the responsiveness of the committee. On behalf of staff, my client, I want to say that I join CDFW and the petitioner, and the comments that were filed by petitioner yesterday, we certainly all still agree with the stipulated agreement that's on the record, but we would have no concern with the language that's proposed with the explanation being that for staff the concern is on Soil and Water-22, that calculating would be best done by the Water Master. And that also supports the communication that staff had engaged in with staff at the Mojave Water Agency who speak on

behalf of the Water Master. They have continued to inform us as to what's happening within their organization. To a large part, we don't know what they're saying about us and what we're doing here. We only have the emails exchanged between Energy Commission staff and MWA staff.

But I want to at least mention to you today that those communications have continued up to this morning, and what we are hearing from MWA is that, to the second part, there's really two things here, one being the interim solution, but the second part and much of what you discussed, Commissioner Douglas, today has to do with the analysis that's yet to be done. And we're referring to that as the water balance analysis.

And we have all been telling you that what we think needs to occur is that there be a robust analysis done, and that there has been agreement that MWA is an appropriate agency to do that. The questions that remain are the timing of such and certainly the funding. But we have communicated with CDFW. They are working on their end. Staff have already provided them with what we are casually referring to as talking points. We are trying to figure out how to get everybody around the table to discuss what would need to be done for this water balance analysis. And I want to punctuate that that is separate from this interim solution. It is a part of what will happen in the

future, but what's before the Commission is the interim solution.

But, by point of reference to help you understand what's happening, staff provided those draft talking points. CDFW is looking at them and will get back to us soon, and so we're encouraged. And I know that that means their legal staff and their technical staff as well.

And on behalf of MWA, they have received an invitation from us to participate. I will say I hope that they do participate as well as Victor Valley, the provider of the reclaimed water, should we do what we would refer to as a workshop with all of those parties. And I know that we informed the committee of this idea.

MWA thanked us, but they also informed us that the Water Master periodically evaluates conditions of the water supply, use, and disposal, and reports annually to the court for purposes of the adjudication and that the Water Master is considering updating at this time. So what we have here is the possibility of a perfect situation.

If the Commission chooses to take the language that's presented by the petitioner in what was docketed last night, in amending Soil and Water-22 and making it clear that the calculation would be done by the Water Master, that then would presumably support the language that we put into the stipulation for Soil and Water-1 and

the other conditions of certification, and then puts it onto the Water Master to do this work that Mojave Water is telling us will be done.

COMMISSIONER DOUGLAS: So that's very helpful, and I appreciate those comments. And I think you heard me that one of the questions I'm -- I think that's very good -- and one of the questions I'm asking is does their work extend to the scope of really looking at this plant, this location, this riparian resource. And to the extent that it does, that's great. To the extent that it doesn't, we absolutely want to incorporate what they do, but we also need to look independently at that one environmental issue as well. But I appreciate that.

Other parties wish to speak?

MS. MURRAY: I very much appreciate your reading of the record. I love that you know that the underground river comes up at The Narrows and that there is a mesquite bosque. So we appreciate and we have had discussions with Water Master staff also. They are the appropriate entity to be doing the water balance, and it can be tailored just to the transition zone. They can do it -- we can do it, but because we would be doing it manually, and they have all the information electronically, it would be easier for them, their staff to do it or for them to hire a consultant. And it would essentially take money.

We are looking at funds that we do not control but have access to request to help pay for this but would hope that the applicant would be encouraged to also pay and participate and CEC staff. And we don't know how that would go, but we are hoping that what we're working on is essentially a scope of work for either the Water Master or its consultant. And they have made it clear to us that they won't do it for free.

We don't really know but don't think it's incredibly expensive, but it's absolutely essential, we feel, for moving forward to a longer-term solution. And so that's why we are planning to -- we cannot commit to it because we have to request the money, but we are planning to make that request once we get a scope of work more narrowed down and at potential estimate.

COMMISSIONER DOUGLAS: Good. Thank you.

Mr. Harris.

MR. HARRIS: Briefly. First, thank you. The revisions, the 22, it's better than half a loaf. I think it's probably a marble rye, or something. It's different, a different loaf. So thank you for that, so the gluten intolerant.

So just a couple of factual and legal issues I want to touch on. In terms of moving forward, I'd like to see more meetings with the committee in the nature of a

prehearing conference style discussion as opposed to evidentiary hearings. Maybe narrow and narrow the issues down to just a few things. I think that's going to be productive. The record is here unwielding. I think that's the one way to get there, so that would be my recommendation or my request moving forward.

In terms of your legal authority, I think the recommended decision does a good job of talking about the executive order, so I just want to say I agree you're on solid ground with your decision today, based upon that and other things.

In terms of the evidence, I would ask you to be open to understanding the complex and unique role of the Mojave Water Master Agency. You know it's one thing that you respect the role, but it's another thing to kind of understand what they're doing. They have a much more basin-wide approach. And there's really two things that have changed since 2000, the turn of the century. One is the listing of the delta smelt in 2007. This project said it would rely solely on State Water Project water. That water supply basically became very, very limited after the listing, as it should, but I think that's the changed circumstances that this is where we are.

And then the second thing is the judgment with the Mojave Water Master and their position. And I think

one of the things that's going to be difficult for you all to balance is fulfilling what you believe is your role versus what we believe the role of the Water Master is. And so those are the kind of things I think we can have further discussions on.

And then, finally, I guess I just want to respond to a couple of comments about a change in water use. This is really not a change in water use. All four of these supplies are authorized. Recycled water, if anything, there is an argument we're only authorized to use up to a thousand acrefeet because that's what the 2007 decision allowing us to use recycled water said. The State Water Project water is obviously available. And the bank water was originally contemplated by the decision. So, if anything, I think we're talking about taking existing water supplies and making commitments to cut back on some of the authorized uses. So there are already some existing CEQA approvals for those supplies that I think you can rely on that will help to get you comfortable with the evidentiary record moving forward.

So I should just take my small victory and shut up, so I'm going to do that. So thank you very much.

COMMISSIONER DOUGLAS: All right.

MS. MILLER: And more, and I was going to start objecting and then that stipulation falls apart.

apart now. All right. So I think we're at a good place. The committee is also very interested in having some interaction with the parties, especially around the scope of analysis that will address the issues that the committee believes need to be addressed and also really understand what are the issues that the parties believe need to be addressed, and clarify and winnow them down. The last thing we want is a study that addresses 80 percent of the issues the committee wants addressed. And nor do we necessarily want to address 150 percent of the issues we think need to be addressed either, so we really want to spend that time with all of you upfront to focus the analysis that's done.

So, Susan, anything more?

MS. COCHRAN: No. But I can help you with whatever motion you might want to bring.

COMMISSIONER DOUGLAS: I would appreciate help with a motion. So we want to approve the committee order with the substitution of applicant's Soil and Water-22.

MS. COCHRAN: Which would be amending Exhibit A to the June 10th Committee Recommended Decision, Soil and Water-22, the last two lines of the paragraph before verification you would strike in the same manner as for injected water pursuant to conditions of certification, Soil and Water-4, 5, and 6. Then we're going to get back

58 1 to Mr. Harris' language. Thank you. 2 And substitute the following phrase, "by MWA or 3 the Mojave Basin Area Water Master." 4 COMMISSIONER DOUGLAS: Very good. So moved. 5 COMMISSIONER SCOTT: Second. 6 CHAIR WEISENMILLER: All those in favor? 7 COMMISSIONERS: Aye. 8 CHAIRMAN WEISENMILLER: Passes four to zero 9 Thank you. again. 10 MS. COCHRAN: Thank you. 11 (Whereupon, Item 4a and 4b was approved.) 12 CHAIR WEISENMILLER: Let's go onto number 5, 13 Aspen Environmental Group. Please go ahead, Joe. 14 MR. MERRILL: Good morning, Chairman 15 Weisenmiller. 16 COMMISSIONER SCOTT: You need the microphone. 17 Your microphone's not on. 18 MR. MERRILL: Good morning again. My name is 19 Joseph Merrill. I'm a staff person with the Siting, 20 Transmission and Environment Protection, or STEP, Division. 21 Staff is seeking approval of Agreement 700-15-001 22 with Aspen Environmental Group for a \$4.687 million 23 contract to: Provide siting, transmission, and environmental protection; technical support to Energy 24

Commission for electricity systems planning studies,

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including developing and implementing land use conservation plans; preparing landscape level environmental analysis; and planning study documentation, preparing system implications, power flow, and economic studies; and other technical activities.

And I'm available to answer questions.

CHAIR WEISENMILLER: Thank you.

First any comments from anyone in the room?

How about on the phone?

Okay, then let's transition to the Commissioners.

important contract for the Siting Division and the Siting Unit. We have done through the Energy Commission a tremendous amount of technical work and coordination around landscape planning, around planning analyses. This includes DRECP. We provided a considerable amount of inkind, largely staff support on another planning effort that was informal, the San Joaquin Solar stakeholder dialogue, the San Joaquin Solar Initiative.

Our staff is providing some really important support to the RETI 2.0 Process and this contract, I know, will be extremely valuable as we move forward to continue to support that effort. There is an increasing interest in, and I'd say from the Energy Commission's perspective, we have years of experience now working in multi-

stakeholder forums of various kinds to really come to terms with planning for renewable energy and planning for achieving our goals. And, as part of that, understanding both the natural environment, opportunities and constraints, and also, in some way, the social and legal and institution environment. What are the other land uses already in effect. And either because of legal designations or because of existing uses that affect where and how and to what extent renewable energy or associated transmission can be developed and are increasingly nuanced; and kind of just inclusive and a stakeholder-based way of putting these pictures together and understanding these things has a lot of potential for informing current policy debates of the day, especially in terms of getting a picture of alternative ways that we can meet our climate and renewable energy goals and how that plays out on the landscape and what that implies in terms of transmission investment or in terms of conservation or other issues or in terms of the likely resource mix that certain kinds of build-out can bring us and, therefore, how do we best optimize around that.

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So I think this is really important work. I certainly recommend it to your approval. And let me just pause to see if there are other comments.

I'll go ahead and move approval of Item 5.

COMMISSIONER SCOTT: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This passes four to zero.

5 Thanks.

MR. MERRILL: Thank you.

(Whereupon, Item 5 was approved.)

CHAIR WEISENMILLER: Let's go onto Item 6, Aspen Environmental Group. Sylvia.

MS. BENDER: Good morning, Commissioners. I'm Sylvia Bender, from the Energy Assessments Division.

This morning I am requesting your approval for an amendment to the Division's technical support contract for two areas within its current scope of work. This is for Contract 800-13-001. First, to augment funding for additional technical natural gas assistance related to Aliso Canyon mitigation actions and winter risk assessment modeling. Secondly, to add additional subcontractors who will comprise an independent expert panel to review and advise us on transportation energy-demand forecasting models and methodologies. This will be similar to a panel established earlier for electricity-demand forecasting under the same contract.

With that brief overview, I ask for approval of this item and am happy to answer any questions.

62 1 CHAIR WEISENMILLER: Thank you. 2 Any comments from anyone in the room or on the 3 line? 4 Okay, let's transition to Commissioners. 5 COMMISSIONER SCOTT: I'm in strong support of 6 this one. I think we can't understate the importance of 7 being able to look into the winter for Aliso Canyon and 8 also for the transportation energy-demand forecast and 9 bringing some additional expertise and robustness to it so 10 that it has the same level of heft and weight that we have 11 in our electricity-demand forecast. So I'm very much 12 looking forward to seeing how this comes out and I'm in 13 support. 14 CHAIR WEISENMILLER: Do you... 15 COMMISSIONER SCOTT: Yes, I will move approval of 16 Item 6. 17 COMMISSIONER DOUGLAS: Second. 18 CHAIR WEISENMILLER: All those in favor? 19 COMMISSIONERS: Aye. 20 CHAIR WEISENMILLER: Item 6 passes four to zero. 21 Thank you, Sylvia. 22 (Whereupon, Item 6 was approved.) 23 CHAIR WEISENMILLER: Let's go onto Item 7, 2016 24 Building Energy Efficiency Standards Residential and 25 Nonresidential Alternative Calculations Method Reference

Manuals.

MR. FROESS: Good morning, Chair and Commissioners. My name is Larry Froess, and I'm a Senior Mechanical Engineer in the Building Standards Office, and the Project Manager for the Alternative Calculation Methods Manuals, also known as the ACM Reference Manuals. I am here today requesting your approval of the updates made to the 2016 Residential and Nonresidential ACM References Manuals.

Staff has made updates and changes to the 2016

ACM Reference Manuals since they were first approved in

November of 2015. The most significant changes were made
to the Residential Manual, which includes updates to the

Domestic Hot Water calculations, Miscellaneous Electrical
Load profiles, a new Energy Design Rating, and integrated

Photovoltaic calculations.

The Domestic Hot Water calculation has updated the hot water draw schedule to better coincide with the hot water usage throughout the day, improve electric resistance and heat pump water heater simulations, and improve multifamily central water heating modeling.

The Miscellaneous Electrical Load profiles were updated to better reflect appliances uses throughout the day.

A new scoring method is introduced called energy design rating, or EDR. The EDR is voluntary and is an

alternative way to show building performance to correlate with the Title 24, Part 11, or CALGreen, where the proposed building is compared to a RESNET reference home with similar building features based on a 2006 International Energy Conservation Code. The scoring method can also show improved performance using nonregulated energy, such as efficient lighting, appliances, plug loads, and Photovoltaic systems.

An integrated Photovoltaic system is now built into the ACM. The calculator is based on PV Watts algorithms and is only used for the voluntary EDR scoring method.

In the Nonresidential ACM Reference Manual, some of the notable changes are updates to include: Partial compliance options for Existing+Addition projects; adding the capability to model Single Packages Vertical Units and Air-to-Air Heat Exchangers; adding the option to specify fixed seating for nonresidential occupancies; and incorporating the updated water heating calculations for highrise residential and hotel/motel occupancies.

We are asking for your approval of the 2016
Residential and Nonresidential ACM Reference Manual updates
that will give the public new and more accurate
descriptions of the calculations used in modeling
buildings. Thank you, and I am available for any

1 questions. 2 CHAIR WEISENMILLER: Thank you. 3 Is there anyone in the room who has comments on 4 this item? 5 Anyone on the phone? 6 Okay, then let's transition to the Commissioners. 7 I think in terms of this particular one, we have 8 all gone through the various variations on getting ready 9 for compliance and having the tools ready. This is one of 10 those steps. 11 COMMISSIONER DOUGLAS: Yeah, I agree. And this 12 is a really important step forward in this program. 13 move approval of Item 7. 14 COMMISSIONER SCOTT: Second. 15 CHAIR WEISENMILLER: All those in favor? 16 COMMISSIONERS: Aye. 17 CHAIR WEISENMILLER: This item also passes four 18 to zero.

19 (Whereupon, Item 7 was approved.)

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CHAIR WEISENMILLER: Let's go onto Item 8, 2016

Public Domain Residential Compliance Software, CBECC-RES

2016.2.0 and Nonresidential Compliance Software, CBECC-COM

2016.2.0.

MR. FROESS: Yes. My Larry Froess and I am
seeking your approval of CBECC-RES 2016, Version 2.0 and

CBECC-COM 2016, Version 2.0 as the 2016 Standards

Compliance Software for newly-constructed buildings as well as for additions and alterations to existing buildings.

CBECC-RES 2016.2.0 is a major change to the residential compliance software that incorporates the requirements of the 2016 Standards as well as the updated descriptions in the 2016 Residential ACM Reference Manual, which includes updates to Domestic Hot Water calculations, Miscellaneous Electrical Load profiles, a new Energy Design Rating, integrated Photovoltaic conclusions, and various bug fixes.

CBECC-COM 2016.2.0 is a major change to the nonresidential compliance software that incorporates the requirements of the 2016 Standards as well as the updated descriptions in the 2016 NonResidential ACM Reference Manual, which includes updates and new features, such as Partial compliance options for Existing+Addition projects, added the capability to model Single Packaged Vertical Units and Air-to-Air Heat exchangers, added the option to specify fixed seating for nonresidential occupancies, incorporation of the updated Residential Domestic Hot Water calculations for highrise residential and hotel/motel occupancies, upgraded the simulation engine to EnergyPlus 8.5, and various bug fixes.

We are asking for your approval of CBECC-RES

2016.2.0 and CBECC-COM 2016.2.0 software. And since these changes constitute a major software change, you will be also approving the decertification of CBECC-RES 2016.1.0 and CBECC-COM 2016.1.0 along with private vendor software which includes EnergyPro Version 7.0 and Right Energy Title 24 Version 2.0. All these versions of software shall expire on September 27th, 2016.

Private software vendors identified above must integrate the CBECC 2016.2.0 compliance managers into their software and submit for approval by August 13th, 2016 in order to have approved software for demonstrating compliance with the performance-based provisions of the 2016 Standards for permit applications made on or after September 27th, 2016.

Thank you, and I am available for any questions.

CHAIR WEISENMILLER: Thank you.

We have one commenter. Meg Waltner, please.

MS. WALTNER: Meg Waltner with the Natural Resources Defense Council. Good morning, Chairman and Commissioners. Thank you for the opportunity to speak today.

I'm here today to support the adoption of the 2016 updated software. This software in particular makes an important improvement to the way heat pump water heaters are modeled for residential construction.

As you may remember throughout the 2016 process, NRDC has urged the Commission to remove barriers to heat pump water heaters in Title 24. While we don't think these updates completely level the playing field for heat pump water heaters, we think they make a important step forward, a very important change to allow for this equipment that has emissions reduction potential.

So with that, we thank for the opportunity to speak and urge you to adopt this offer today.

CHAIR WEISENMILLER: Great. Thank you. Thanks for being here.

Anyone else in the room have comments on this?

Anyone on the phone?

Okay, then let's transition to the Commissioners.

Again, I think this is consistent with our last discussion of the importance of the Building Standards and also getting the compliance tools out in a timely fashion. So, again, part of that is trying to make sure it's got the features that the builders and architects need.

COMMISSIONER DOUGLAS: Yeah. I agree with that and appreciate NRDC being here to comment and also their engagement with us on Building Standards. And I move approval of this item.

COMMISSIONER SCOTT: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This item passes four to

3 zero.

Thank you.

(Whereupon, Item 8 was approved.)

CHAIR WEISENMILLER: Let's go onto City of Davis, Number 9.

MS. NEUMANN: All right. Good morning,
Commissioners. My name is Ingrid Neumann, from the
Building Standards Office.

The City of Davis has submitted a complete application for a local ordinance more stringent than the 2013 Building Energy Efficiency Standards found in Title 24, Part 6. The ordinance was approved by the City of Davis' Council on December 3rd of 2013, but the costeffectiveness study, as required by Part 1, was not completed and heard until January 22nd of this year. As part of this ordinance, the City of Davis adopted and amended CALGreen Tier One in Section 8.01.065. This requires New Low Rise Residential Buildings to be 15 percent more energy efficient, as measured by TDV Energy than the 2013 Building Energy Efficiency Standards.

Staff recommends the item to be approved and that the Energy Commission resolution be signed. I'm available to answer any questions you may have, as is Greg Mahoney,

who is the Chief Building Official for the City of Davis.

CHAIR WEISENMILLER: Great. Mr. Mahoney, you want to step forward, do you have any words to say, anything you want to comment?

MR. MAHONEY: No. I think Ingrid covered it, and we're just hoping to capture some projects that are on the books right now seeking entitlement and have them at the 15-percent compliance add.

CHAIR WEISENMILLER: Great. We certainly want to thank you for being here and for your efforts at the local level.

COMMISSIONER DOUGLAS: Well, I guess I'll speak up as one of two Commissioners who live in Davis and congratulate the City of Davis for your work and for bringing this forward. And I'm pleased to move approval of the City of Davis' locally-adopted building energy standards which require greater energy efficiency than the 2013 Building Energy Efficiency Standards.

COMMISSIONER SCOTT: Said.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This item passes four to

23 zero.

Thank you.

(Whereupon, Item 9 was approved.)

CHAIR WEISENMILLER: Let's go onto Item 10, Digital Energy.

MR. EHYAI: Thank you, Chair Weisenmiller. Good morning, Commissioners. My name is Admire Ehyai, with the Efficiency Division.

Digital Energy is the prime contractor leading a team of engineers that is supporting the Bright Schools and Energy Partnership programs by providing technical assistance to program participants.

The tech support contract with Digital Energy is for \$4 million. Amendment 1 will add \$1.25 million to the contract amount. No other changes are proposed by this amendment. The existing contract and RFQ that preceded the contract include language that allows the Commission the augment the contract amount by up to \$2 million if fiscal Year 2015/16 funding becomes available. Augmenting the contract helps ensure sufficient funding remains available to continue offering services to program participants.

This is a work-authorization agreement funded by the Energy Conservation Assistance Account, known as ECAA and it's ECAA At Sub Account. Work is only performed when the contractor is provided written direction via a work authorization. When the contract ends, any remaining balance will revert to ECAA and may be used to fund new loan awards. The contract end date is January 31st, 2018.

The Bright Schools and Energy Partnership programs are long-standing Energy Commission programs.

These programs provide a wide range of technical assistance to public sector entities seeking to reduce building energy use and save utility costs. Local educational agencies, such as K-12 school districts, are eligible to participate in the Bright Schools Program. Municipalities and other public sector entities are eligible for the Energy Partnership Program. these programs provide a grant of service at no cost to participants.

A commonly-requested service is to conduct comprehensive energy audits of existing buildings. The results of such audits is an ASHRAE LEVEL 2 report that identifies cost-effective energy efficiency and self-generation opportunities and quantifies the feasibility for such upgrades. Program participants can then seek an ECAA loan or use other available funding, including Proposition 39 awards, to implement the recommendations.

We are currently a year and a half into the three-year term of this agreement. The contracts has completed energy audits for 87 applicants, covering 190 school and municipal buildings. Of the \$4 million in the contract, approximately \$2.2 million has been encumbered, leaving a balance of \$1.8 million for new work authorizations. Amending the contract will allow us to

1 provide additional technical assistance to program 2 participants. These services are especially valuable to 3 school districts as they seek technical assistance needed 4 to participate in the Proposition 39 program. 5 anticipate a surge in Bright Schools application as we 6 enter year three of the five-year Prop. 39 program. 7 Thank you for your consideration. I am happy to 8 answer any questions. 9 CHAIR WEISENMILLER: Thank you. 10 Is there any comments from anyone in the room or 11 on the phone? 12 Then again let's transition to the Commissioners. 13 COMMISSIONER DOUGLAS: I'll just briefly note 14 that this is obviously extremely important work. It's 15 great that it's getting done, and I will move approval of 16 Item 10. 17 COMMISSIONER HOCHSCHILD: Second. 18 CHAIR WEISENMILLER: All those in favor? 19 COMMISSIONERS: Aye. 20 CHAIR WEISENMILLER: This item passes four to 21 zero. 22 Thank you. 23 Thank you so much. MR. EHYAI: 24 (Whereupon, Item 10 was approved.) 25 CHAIR WEISENMILLER: Let's go onto Number 11,

NORESCO, LLC.

MR. ISMAILYAN: Good morning, Chair and Commissioners. I'm David Ismailyan, from the Existing Buildings and Compliance Office of the Efficiency Division.

I'm seeking approval through a proposed resolution of an agreement with NORESCO, LLC for technical support on strategies within the recently-adopted Existing Buildings Energy Efficiency Action Plan.

Certain strategies within the plan require a highly-specialized knowledge which does not exist in any one civil service agency. Example areas of technical support would include: Energy use benchmarking and public disclosure programs; nonresidential building energy science and related modeling; savings measurements and verification approaches using metered energy consumption; data analysis approaches that leverage and build upon available solutions; energy consumption forecast and demand analysis; and, finally, data standardization, security, and public accessibility.

The proposed contractor and a substantial list of subcontractors have the experience, expertise, knowledge, and skills to provide the needed technical support to move the energy efficiency gage to a level required by Assembly Bill 758 and Senate Bill 350. This contract was the result of a competitive solicitation that received six

applications.

Today I'm recommending contracting with the highest-scoring team. Thank you, and I'm happy to answer any questions.

CHAIR WEISENMILLER: Thank you.

Any comments from anyone in the room or on the line on this item?

Okay, let's transition to the Commissioners.

I think obviously we've all talked about the importance of energy efficiency in the same building, and this is one to provide some of the analytical tools we're going to need as moving forward on the 758 plan.

move forward to implement SB350 and the doubling of energy efficiency and the accounting for the doubling of energy efficiency, it's really important that we build our analytical capabilities and understand how to assess and track and model and measure and forecast savings from these programs. These are obviously very diverse programs. Very often you run into an issue where you can very easily say that multiple programs contribute to one set of savings, for example. And so this is not a simple area, it's a pretty complex are. I certainly support this item and I move approval of Item 11.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: All those in favor?

2 COMMISSIONERS: Aye.

MR. ISMAILYAN: Thank you.

CHAIR WEISENMILLER: Thank you.

(Whereupon, Item 11 was approved.)

CHAIR WEISENMILLER: Let's go onto 12.

MR. BEDIR: Hello, Commissioners. My name is Kadir, and I am an Air Pollution Specialist at the Zero Emission Vehicle Infrastructure Office.

So my project proposes deployment of electric vehicle charging stations within several National Park Service territories. A team from the National Park Service has contacted our office and requested funding for conducting a feasibility study and installing charger stations for some of the National Park sin California. And, based on this request, my team has drafted an agreement in a way that gives the National Park Service flexibility to deploy EV charges as they identify potential sites.

Based on the proposed agreement, NPS will choose several sites from the 27 National Park units in California. Among these sites, some sites already have EV charging, some are in urban environments where home-charging is predominant. Some are more remote with electricity-capacity issues and some need on-route highway

chargers for successful EV travel. All chosen sites must be confirmed by the CEC and also by other authorities who have operational oversight over the National Park lands.

The criteria to select the sites includes visitation rates, the distance to the nearest existing charging units, site conditions, and possible routes to and from the park. The National Park Service is required to install a minimum of 15 electric vehicle charging stations within four of California's National Parks. The project will enable further access for EV, electric vehicles, to National Parks. Along with reducing fuel used and vehicle emissions, this project is also expected to make a significant impact on PEV awareness.

CHAIR WEISENMILLER: Thank you.

We have one commenter on the phone --or, first, is there anyone in the room who has a comment on this item?

Then let's go to the lines. I think Mary Hazel.

MS. HAZEL: Mary Hazel. I'm with the National Park Service in the Office of Sustainable Operations and Climate Change.

We are really excited to be able to do this partnering with you guys. You know we care very deeply about climate changes and energy and emissions reductions and air quality, and all those things. And we are hoping to complement your other route planning throughout the

state and allow us to look into adding these federal sites along people's travel to and from National Park units and through, and look forward to helping make this happen.

We also, like Kadir said, think this is a really great platform for information. Just because we have millions of visitors, it will allow for sustainable EV travel across the state and allow us to pass that onto a platform across the nation. And we have over 400 million visitors across the United States.

So we thank you for this opportunity and look forward to doing it.

CHAIR WEISENMILLER: Great.

Anyone else on the line?

Okay, Commissioner Scott.

COMMISSIONER SCOTT: Sure. I just want to thank you very much, Mary, for being on the phone with us today and for your collaboration with the Energy Commission.

Fellow Commissioners, as you all know, we are working to try and electrify corridors like 99 or I-5 or 80 and also destinations. And so this, I think, is a fantastic partnership with us and the National Park Service, and will also help call some attention, as Ms. Hazel noted, to help raise EV awareness.

So I will, unless there are questions, move approval of Item 12.

79 1 COMMISSIONER DOUGLAS: Second. 2 CHAIR WEISENMILLER: All those in favor? 3 COMMISSIONERS: Aye. 4 CHAIR WEISENMILLER: This item passes four to 5 zero. 6 Thank you. 7 MR. BEDIR: Thanks. 8 (Whereupon, Item 12 was approved.) 9 CHAIR WEISENMILLER: Let's go onto Item 13, 10 Pacific Northwest National Laboratory. 11 MR. JENKS: Good morning, Chairman and 12 Commissioners. My name is Chris Jenks. And I am 13 representing the Zero Emission Vehicle and Infrastructure 14 Office. 15 Today I am seeking approval of a proposed resolution with the Pacific Northwest National Laboratory, 16 17 PNNL, operated by the Battelle Memorial Institute for the 18 U.S. Department of Energy. This agreement for \$221.333 19 reimburses the cost of hydrogen safety plan reviews and 20 station audits by the PNNL Hydrogen Safety Panel (the 21 Panel) for GFO-15-605. It will be funded through the 22 Alternative and Renewable Fuel and Vehicle Technology 23 Program. 24 The Panel is compromised of experts who provide 25 recommendations on hydrogen safety issues, assist with

identifying safety gaps, best practices and lessons learned, and help integrate safety planning to ensure that projects address and incorporate hydrogen and related safety practices. The Panel has been in operation since 2003 and contains 16 members and up to 5 are expected to recuse themselves. These consultations and reviews by the Panel will strengthen the safety planning of future hydrogen-refueling stations and ensure that the proposed projects that will eventually be funded by the Energy Commission have adequate Safety Plans. Safety Plans have not been required by previous GFOs, so FTD posted a webinar to explain how the Panel will be reviewing Safety Plans in terms of their guideline.

According to this agreement the Panel shall evaluate at least eight safety plans submitted to the Energy Commission as part of applications to GFO-15-605. An estimated eight different designs are anticipated for the hydrogen-refueling stations and only the differing designs, not multiple locations per design, will be evaluated. These evaluations shall be provided to the scoring team for the GFO to help determine the application scores.

The Panel shall evaluate and explain hydrogen releases and other hydrogen-refueling station or ancillary equipment-related incidents for all apparent recipients.

They shall evaluate the grant recipients' ensuing

experiences based on their reports on hydrogen releases and incidences submitted to the Panel by the Energy Commission staff. The reports submitted to the Panel will be the same reports submitted by hydrogen station providers to the Unified Program Agency. The Panel will guide station operators to anonymously post incident reports on the Department of Energy Hydrogen Lessons Learned database website, which facilitates the sharing of knowledge from actual experiences using and working with hydrogen.

The Panel shall evaluate each hydrogenrefueling station funded under the GFO-15-605 annually for
three years after the station becomes operational as
defined in the GFO. The evaluation will include the
station's adherence to the initial Safety Plan and to any
related Safety Plan Implementation issues. These
evaluations consist of a site visit the first year and
telephone interviews the second and third years.

Staff is asking the Commission to approve the proposed resolution for this \$221.333 agreement with PNNL. Thank you for your consideration. I'm available to answer any questions you may have.

CHAIR WEISENMILLER: Thank you.

I think we have Tyson. Please.

MR. ECKERLE: Great. Well, thank you very much for having me here. Excuse me. My name is Tyson Eckerle.

I'm the Zero Emotion Vehicle -- oh, no, that's different now. I'm the Deputy Director of Zero Emission Vehicle Infrastructure at the Governor's Office of Business and Economic Development. We have a new Zero Emission Vehicle Project Manager right there, Gia Vacin. It's her second week on the job, to help us do this. But we're here to voice strong support for this proposal and the Hydrogen Safety Panel.

I think each company that I have worked with in the development of hydrogen stations, they have some version of safety is job number one. I think that's a uniform industry thing and there's a lot of interest in making sure that any lessons learned that we learn here in California translate to other places. So I've had the great pleasure of working closely with the Hydrogen Safety Panel on projects and it's very clear that their expertise and experience truly is unparalleled and it's quite an asset and resource that we get to take advantage of.

I just want to make a point it's clear that hydrogen stations, the ones that have been funded, have an excellent safety track record, so it's not an issue we're trying to address out of a problem. This is really an opportunity to help collect lessons learned and make sure that we continue to be successful in California and also that this success translates to other jurisdictions as we

grow out. That's really the value of this DOE-backed Hydrogen Safety Panel. Those lessons learned have a natural avenue to make it out to the other states, so it's not just something happening here.

And so I just wanted to reiterate strong support for this. It's a great selling point. We're out in the local communities talking about safety. That's one of the first questions that come up, and we're very comfortable in saying that these are totally safe and this reaffirms that comfort. And it also will help expose them and give them a resource to look at more closely when they are doing their own analysis of approving these stations. So thank you very much for the opportunity to say a few words.

CHAIR WEISENMILLER: Well, thanks for being here.

Anyone else in the room?

Anyone on the line have any comments?

Then let's transition to the Commissioners.

COMMISSIONER SCOTT: I'd just like to say thank you to Tyson for being here and welcome to Gia. This is a terrific project. I appreciate very much our partnership with the Labs and with DOE on kind of putting in place all of the pieces and the components that we need to stand up this hydrogen-refueling structure, and so I am happy to move Item 13 for approval.

COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: All those in favor?

2 COMMISSIONERS: Aye.

 $\label{eq:CHAIR_WEISENMILLER:} \text{So this item passes four to} \\ \text{zero. Thanks.}$ 

(Whereupon, Item 13 was approved.)

CHAIR WEISENMILLER: So let's go onto Item 14, Freight Transportation Projects at California Seaports. Please, Larry.

MR. RILLERA: Good morning, Chair and Commissioners. I am Larry Rillera of the Fuels and Transportation Division.

With the growing awareness of the economic and environmental challenges facing California's seaports, Commissioner Scott initiated an effort to engage the ports throughout California as they develop and implement sustainable practices. In March of 2015, the Commission and five ports throughout the state kicked off the Ports Energy Collaborative. The Ports Energy Collaborative provides a forum for the commission and the ports to come together to discuss important energy issues, mutual challenges, and opportunities for transitioning to alternative and renewable energy technologies.

Utilizing information gathered through this collaborative, staff developed the Freight Transportation Projects at California Seaports solicitation. Today I am

seeking approval of two agreements resulting from this solicitation, funded by the Alternative and Renewable Fuel and Vehicle Technology Program. The purpose of the solicitation was to fund medium— and heavy—duty vehicle technology demonstrations that will help develop vehicle technologies which reduce greenhouse gas emissions, improve air quality, reduce petroleum—fuel consumption, enhance market acceptance leading to their commercial production, as well as benefitting disadvantaged communities.

Item 14a, with the San Diego Port Tenants

Association, will field demonstrate six battery electric yard tractors, four plug-in hybrid yard tractors, and ten drayage trucks in an intelligent transportation system, or ITS architecture. The ITS technologies to be demonstrated will focus on what is referred to as truck platooning, which relies upon freight moving trucks to communicate and travel in close proximity in order to achieve environmental benefits.

Item 14b, with the City of Los Angeles Harbor

Department, also known as the Port of Los Angeles, will

field some 20 yard tractors with low NOx engines, 5 battery

electric yard tractors, and Class 8 trucks in an ITS

architecture. This ITS demonstration will include 100

trucks with marine terminal operators with project

dimensions that include street signal optimization,

telecommunications and route design, and freight scheduling.

These projects can be great examples of the Energy Commission's efforts to support activities that align with the currently under development California Sustainable Freight Action Plan, which with initiated by Governor Brown's Executive Order B-32-15 in July of 2015. As staff from the Energy Commission participate in the development of this Action Plan and continue to collaborate further with our freight stakeholders, additional opportunities for promoting these sustainable options in the freight sector will be pursued.

With that I'd like to thank you for your consideration of these items, and representatives from the projects are present.

CHAIR WEISENMILLER: Great. Thank you.

Let's walk through the public comment from those in the room. First let's start out with the San Diego Port Tenants Association.

MS. SILVESTRI: Good afternoon, Chairman
Weisenmiller and Commissioners and Energy Commission staff.
My name is Sophie Silvestri. I'm the Director of
Operations for the San Diego Port Tenants Association. I'm
here today representing our Association President Sharon
Cloward, who could not be present today due to hip-

replacement surgery.

Present today are representatives from BYD, the Grant Farm, and San Diego Gas and Electric, as well as the San Diego Port Tenants Association Project Manager. And joining us virtually are Peloton Technology, GC Green, and Continental Maritime, as you can probably see.

The association and its partners believe that the Energy Commission's commitment to the goals of the freight transportation projects at California seaports is an example of our state's dedication to greenhouse gas reduction. It demonstrates advanced vehicle technologies, maintaining economic competitiveness, while benefitting disadvantaged communities.

We are honored and enthusiastic about the Commission's proposed award of \$5.9 million. We look forward to carrying out the mutual goals of our organizations.

The association represents 200 businesses that we call port tenants. Each business leases property from the San Diego Unified Port District, which operates as a trustee of state owned tide lands. Since it's creation 27 years ago, the association studies and communicates the requirements of all the governing agencies that have regulatory powers over our tenants, and there are many. We serve as an educated mediator for our members with the

Board of Port Commissioners.

Association businesses operate in the following sectors: Maritime industrial, commercial fishing, crews, boating and repair, hospitality, manufacturing, and defense. They generate \$7.6 billion annually of economic impact in the region. With this grant, we're going to make a difference in the port Cities of San Diego, Chula Vista, and National City.

Our association strives to be an early adopter of environmental initiatives and technologies. When the Port of San Diego was crafting its climate action plan, we provided concrete, measurable outcomes to enhance the plan. The Energy Commission's funds will be used for the development and demonstration of electric and hybrid vehicles and equipment to reduce greenhouse gases. The project will also assess and educate community members on the deployment of advanced technologies.

We would like to recognize our technology partners, project partners, and association members, who are also very enthusiastic about this project.

We look forward to engage with the Energy
Commission through the Ports Energy Collaborative efforts
and the San Diego Unified Port District. On behalf of our
association, we would like to thank you in advance for your
support of this project.

CHAIR WEISENMILLER: Thank you. Thanks for being here.

Let's go to SDG&E next.

MS. BROWN: Good afternoon. My name is Linda
Brown, and I'm the Senior Director of Clean Transportation
for San Diego Gas and Electric. On behalf of SDG&E, it's
our privilege to support the San Diego Port Tenants
Association in this grant opportunity.

We believe this grant provides great opportunity to help our customers in San Diego increase the electrification of their fleet while helping meet the state's 350 carbon-reduction goals. Grants like this support climate action plans by the cities and other organizations. We plan to be fully engaged and partner with San Diego companies at the port and the San Diego Port Tenants Association.

We believe the utilities play an important role here and we can help the customers understand the infrastructure requirements. We have a lot of experience in this area. We have 200 employees and over 20,000 customers in the San Diego region that have electric vehicles today. The funding these grants provide are pertinent to these companies that help reduce the financial burden.

We applaud the Commission for their robust grant

program and offer the following comments to consider for future clean transportation funding. Please provide as much notice as possible for future program notices, that this will allow the grant teams to effectively plan their applications. Through this grant application and a few others, we have learned the intrinsic role that people movement has, so we would greatly appreciate the inclusion of both forklifts in this grant opportunity plus more diverse in future ones, such as offroad trucks, cranes. And we believe that will help expedite the operational experience and the transition to low carbon fuels.

Lastly, we look forward to opportunities relevant to people movement such as taxis, shuttles, and transit buses.

We thank you for your dedication and leadership in helping to lead the transportation electrification for the state of California.

CHAIR WEISENMILLER: Thank you.

BYD.

MR. YOUNG: Good afternoon, everyone. My name is Josiah Young, of the Weideman Group, on behalf of BYD, here in support of the seaport project.

First thank you to the Board, to the Chair, and to the CEC for this funding opportunity. BYD is excited to be here as a part of this project. And we would like to

highlight that battery electric vehicles are here and ready for prime time. We are excited to collect data around these two projects, San Diego as well as L.A. And we're looking forward to using that data to showcase to the markets that these vehicles are more than able to meet the needs of the freight and port industry.

Thank you.

CHAIR WEISENMILLER: Thank you. Thanks for being here.

Efficient Drive Trains, Inc.

MR. FAHREDDIN: Good afternoon, everybody. My name is Leonhard Fahreddin. I'm the Director of Operations at Efficient Drive Trains. I first want to say thank you to the Commission for this opportunity.

developing zero emission, hybrid, and pure electric drive train solutions for medium— and heavy—duty trucks. We're located here in California and we're manufacturing our systems here in California. And I want to point out that this funding opportunity is very important for us. We're very excited about it, for building two drayage trucks for the Port of San Diego and also provide battery solutions for forklifts.

So thank you for this opportunity, and we're really looking forward to this project.

CHAIR WEISENMILLER: Great. Thanks for being here.

Now we're transitioning from a to b, so let's start out with the City of Los Angeles Fire Department.

Carter Atkins.

MR. ATKINS: Good afternoon, Chair and Commissioners. I'm Carter Atkins from the Port of Los Angeles.

The Port of Los Angeles is grateful and excited for this opportunity to partner with the California Energy Commission on this innovative project that will focus on demonstrating near zero and zero emission cargo-handling equipment, as well as improving efficiency to onroad trucks traveling in and out of the ports' container terminals.

The San Pedro Bay Ports Cleaner Action Plan adopted in 2006 and updated in 2010 guides the Port of Los Angeles in its commitment to reduce health risk, air emissions including greenhouse gases associated with port-related operations, while allowing the port development to continue.

In 2011 the San Pedro Bay Ports prepared the Zero Emissions Roadmap. Its purpose is to provide an initial course of action for the identifying and evaluating and integrating of zero emission technologies into the maritime goods movement and related activities. Most recently in

July '15, the Port of Los Angeles released its Draft Zero Emissions White Paper, with the goal of demonstrating up to 200 zero and near zero emission trucks and cargo-handling equipment over the next five years to accelerate the commercialization of this advanced vehicle technology.

Since 2008, the Port of Los Angeles, included with the Port of Long Beach, and regulatory stakeholders have been involved in over 33 zero, near zero, and hybrid vehicle demonstrations, including both on and offroad application.

So to the grant opportunity. The first component of this grant will provide the Port of Los Angeles with approximately \$4.8 million for purchase and demonstration of 5 zero emission yard tractors that will be equipped with BYD zero emission propulsion technology and 20 near zero emission yard tractors that will be equipped with, for the first time in the offroad yard tractor application, with the Commons Westport near zero, 0.2 grams of brake horsepower, our NOx engine. All 25 of these yard tractors will be deployed at the Port of Los Angeles Everport Container Terminal and the fuel will be renewable natural gas.

A second component of the CEC grant will provide approximately \$1 million to the Port of Los Angeles and its project partners to deliver an innovative ITS project

designed to reduce freight-induced environmental impacts while improving mobility and congestion in and around the Port of Los Angeles. It will be accomplished through the seamless integration of ITS technologies, including Freight Advanced Traveler Information System, Ecodrive, and GeoStamp. The in-service demonstration of both project components will provide long-term operation experience with advanced freight information technology and yard tractor and drayage truck applications, and will also result in significant reductions of petroleum-fuel consumption, greenhouse gas, and criteria pollutant emission reductions.

Once again, I'd like to wrap up by saying the

Port of Los Angeles greatly appreciates this opportunity to

partner with the CEC on this groundbreaking project.

Thank you, Commissioners, for your consideration of this item. And I am here to answer any questions you may have. Thank you.

CHAIR WEISENMILLER: Thank you.

We have another card from BYD. Do you have anything in addition to add on this one, or... Okay. On, that's what I figured, but I thought I would check.

Okay. So Kerry Cartright is on the line -- actually, first, is there anyone else in the room?

Go ahead.

MR. GARVEY: Good afternoon, Commissioner, and

this is Shawn Garvey with Grant Farm. I just wanted to point out a couple of innovations in the San Diego Sustainable Freight Demonstration Project. We were honored to be part of that project team and saw a very compelling blend of technology partners, BYD, Peloton, EDI, Carbon Blue, and Transpower, come together with seven different fleet partners. And the diversity of that team made for a really interesting submission process, but a brand new community that has sprung up in San Diego as a result.

I do want to point out that Greenlining was part of this proposal with a very innovative approach to outreach to disadvantaged-area communities and to supply chain diversity. And GC Services, as well, providing that same service but in the veteran and disabled veteran communities.

Finally, I do want to thank Sophie Silvestri and, in particular, Jason Greenblatt with Sempera Utilities, who provided leadership without which this wouldn't have come together. Thank you very much.

CHAIR WEISENMILLER: Great. Thanks.

Anyone else in the room?

Then let's go to Kerry Cartright, Port of L.A.,

23 on the line.

MR. CARTRIGHT: Can you hear me?

CHAIR WEISENMILLER: Yes.

MR. CARTRIGHT: Yes. Kerry Cartright, Director of Goods Movement, Port of Los Angeles. I apologize for not being able to attend. A staff resource I'm having to work on, on getting another State of California grant opportunity.

Carter Atkins actually summarized the project very succinctly. And we're very excited about this because the existing freight project, freight events, the information technology project has been and is in testing, as I say, a sponsored project by U.S. DOT and Phase 2 down here in the Port of L.A., Long Beach, with 200 trucks to be deployed within the system. So we're very excited about integrating two new components, the Ecodrive by U.C. Riverside which uses traffic signal timing information to improve acceleration to acceleration, as well as GeoStamp, a newly-launched product, a Phase 1 application for providing realtime location and travel time information for truck drivers in the Ports area and beyond.

And that concludes my brief remarks.

CHAIR WEISENMILLER: Great. Thank you.

Anyone else on the line?

Then let's transition to the Commissioners.

23 Commissioner Scott.

COMMISSIONER SCOTT: Well, this is just fantastic. I am so pleased that we have this partnership

with the ports. We are also looking at things beyond transportation. If you all recall from the last Business Meeting, or it might have been April, we worked with the Port of Hueneme to do some high mast lighting with them, so it will change out their CFLs to LEDs. And so we really have been looking to find things that are of mutual interest to the ports and to the Energy Commission.

And I'm so pleased about these transportation projects as well. I'm really looking forward to finding out how the intelligent transportation system components work out. I think that's a really exciting part of this, and just want to thank you all of you who came and commented here in the room and on the phone. I share your enthusiasm for these projects.

And if you all don't have any questions, I will move approval of Item 14.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This item passes four to

21 zero. Thank you.

(Whereupon, Item 14 was approved.)

CHAIR WEISENMILLER: Let's do one last item and then we'll break for lunch. Susan.

MS. WILHELM: Hi. I'm Susan Wilhelm. And on

behalf of the Energy Generation Research Office, I'm requesting today approval for funding a research grant entitled Extreme Weather-Related Vulnerability and Adaptation for California's Transportation Fuel Sector. This agreement with the University of California, Berkeley, would be in the amount of \$1,684,999, from Petroleum Violation Escrow Account funds.

As you know, prior research supported by the Energy Commission has demonstrated that California's electricity and natural gas systems are vulnerable to a variety of extreme weather-related events that will be compound by sea level rise and other aspects of a changing climate. Similarly, CalTrans conducts research to investigate vulnerability and adaptation options of state-owned highways and bridges. The Energy Commission's and CalTrans' work demonstrates that without proper research and planning, California will be ill-prepared for the impacts of future extreme events. However, to this point, the state has not undertaken an indepth study of the vulnerability and adaptation options for the transportation fuel system.

To fill this gap, the State of California requested and was allocated funds from the Petroleum Violation Escrow Account. The proposed research grant was selected through competitive bid and will provide an

initial assessment of the vulnerability of California's transportation fuel sector for extreme weather-related events, such as flooding, wildfires, sea level rise, storm surge, wave dynamics, and saltwater intrusion. The work will leverage a multi-stakeholder engagement process as well as a system developed by the U.S. Department of Homeland Security to allow high-detail, high-accuracy data to be shared for detailed internal analyses while maintaining privacy and confidentiality.

The proposed research will also contribute to California's Fourth Climate Change Assessment.

Staff recommends approval of this project, and I'm happy to address any questions. Thanks.

CHAIR WEISENMILLER: Okay. Is there anyone with comments in room or on the telephone?

Okay, then again let's transition to Commissioners.

Obviously this went through the research areas.

As Lead Commissioner, I can say we viewed this. And obviously resilience is an important topic. We have a workshop coming up next week on that. And we've done a lot on electricity sector and the gas sector. And what we're doing here as far as transportation fuel in that it's obviously not one of the areas that we can fund directly with our EPIC money. So, anyway, this was a creative way

to start filling that gap, since obviously our transportation fuel sector can really be heavily impacted by climate change.

COMMISSIONER DOUGLAS: I agree with those comments completely and I am looking forward to the workshop on this topic, so with that I move approval of this item.

COMMISSIONER SCOTT: Second.

CHAIR WEISENMILLER: Okay. All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This passes four to zero.

(Whereupon, Item 15 was approved.)

13 CHAIR WEISENMILLER: So let's be back here by

14 1:30.

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(Whereupon, the luncheon recess taken from 12:23 to

16 1:32 p.m.)

CHAIR WEISENMILLER: Good afternoon. We're back on the record agenda. Let's go onto 16, University of California, Merced.

MR. DOLL: Good afternoon, Commissioners. My name is Jeffrey Doll, with the Energy Research Development Division's Buildings Energy Efficiency Program. I am presenting a solar water-heating project for residential, commercial, and industrial sectors with U.C. Merced. This is a solar water-heating project that will utilize mini-

channel technology.

Many channels are a technology that is hidden in the ventilation of air conditioning condensers and automotive radiators. And Merced previously developed a project with us that would utilize that mini-channel technology in solar water heating. What they previously did was they installed the mini-channel solar water-heating technology on one of their buildings and testing it against traditional solar flat-plat collectors to see how their performance compared. They used aluminum as their material for the mini-channel solar and they wanted to compare it to the traditional copper tube, thin collectors. And they got some promising results from that.

They also developed a new idea of adding copper or using copper with their mini-channel technology to see if it would be possible to get better performance and possibly even generate steam.

With this project, U.C. Merced is planning to take that aluminum mini-channel technology and demonstrate it on residential and commercial buildings, focusing on the Los Angeles Basin. They are going to test the technology using actual heatloads this time. The residential and commercial buildings, they are going to test it with things like showers, laundry, etc. With this demonstration, they are going to evaluate its cost-

effectiveness in actual residential and commercial building settings. And they also are going to take the results from their demonstration and see if they can market the technology on a wider scale than this project will cover.

Merced will also be taking their copper minichannel technology and they are going to try and further develop and test that technology to improve the design, optimize it, and test the solar-water heating for potential commercial and industrial applications. They believe that there is a potential for generating usable low-grade steam, using that technology than is currently possible, using nonevacuated solar collectors. And they want to try and see how would work in an industrial setting and optimize it and see if there can be any improvements made that would help that out.

So that is essentially what U.C. Merced plans to do with this project. If you have any questions, I'm available.

CHAIR WEISENMILLER: Okay. Thank you.

Any questions, any comments from the audience, people in the room or on the phone?

Okay. So let's go to the Commissioners.

Again certainly this has gone through the Lead Commissioner for research myself, and it's a good project.

I think it's important. U.C. Merced has done a lot of very

interesting stuff on the development of solar technology, and so I think this is a good project.

COMMISSIONER DOUGLAS: I strongly agree with that and I move approval of this item.

COMMISSIONER HOCHSCHILD: Yeah. I was just going to say I visited U.C. Merced and very impressed at the team and the creativity. I do think one thing to look at as the costs of PV have come down, I know the solar thermal market has suffered a bit because I'm some cases it's cheaper to heat your hot water with PV, and it's great to see some cost-reduction potential on the solar thermal side. I'm just interested to see if we should look at how that changes the map over time.

MR. DOLL: Yeah. Looking at, for example, PV-powered heat pumps compared to solar thermal technology, is something our program will look at in the future. It's outside the scope of this project, but it is something our program is considering.

COMMISSIONER HOCHSCHILD: Yeah. No, I think it's definitely something to keep our eye on.

I second the motion.

22 CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

24 CHAIR WEISENMILLER: Approved four to zero.

25 Thank you.

(Whereupon, Item 16 was approved.)

CHAIR WEISENMILLER: Let's go onto Reducing Costs for Communities and Businesses Through Integrated Demand-Side Management and Zero Net Energy Demonstrations.

MR. DOLL: I will be presenting Item 17 as well. This is a package of three projects that came out of our recent competitive solicitation on zero net energy communities. The first project is with the City of San Diego -- or, excuse me -- it's with the Center for Sustainable Energy. They are testing zero net energy technology on three of the City of San Diego's libraries.

The purpose of this project is to help municipal buildings in the state of California reach the 50-percent ZNE by the 2025 mandate with the State. They are looking to demonstrate cost-effective pathways for achieving ZNE. For this project, CSE is going to design and install advanced energy-efficiency technologies and emerging energy-efficiency technologies in combination with solar PV and energy storage that will be provided through match funding, to achieve zero net energy in three of their San Diego libraries, the Serra Mesa Library, the Point Loma Library, and the Valencia Park/Malcolm X Library.

With this project they are aiming to create a replicable blueprint for local governments to achieve ZNE buildings by 2025. They want to demonstrate the technical

competency of integrated demand-side management to deliver ZNE in existing municipal buildings. They want to demonstrate the value proposition of revenue models through IDSM and demand response. They are going to engage in public outreach to extend the direct energy savings beyond these demonstrations to other buildings, and not just municipal but also commercial buildings.

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Item 17b is a grid Integrated ZNE community's demonstration with the Electric Power Research Institute. This project is going to demonstrate cost-competitive ZNE design strategies to create pathways for large-scale residential ZNE communities. The three community demonstration locations will be in Woodland, Clovis, and Lake Forest. The project will demonstrate that ZNE communities can be accomplished at market rate and in a manner that is cash flow positive to occupants. They are going to deliver standard ZNE packages across multiple climate zones. They are going to conduct substantial monitoring in order to understand actual energy performances in ZNE communities, identify the distributed grid impacts of ZNE communities. They want to develop new pathways to ZNE in a manner that works for customers, utilities, and builders.

They're going to try and understand the impacts of electrifying hearing loads to meet California's long-

term carbon goals and provide design recommendations to utility programs that enable attainment of the ZNE at scale. EPRI is going to be working with Meritage Homes, DeYoung Properties, PG&E, SoCal Edison, among others, to demonstrate the feasibility of large-scale ZNE communities attempting to answer additional research questions.

In addition, staff requests Commission concurrence with the following California Environmental Quality Act findings in adoption for the demonstration locations.

As to the City of Lake Forest, findings based on the lead agency, City of Lake Forest's Final Initial Study, Mitigated Negative Declaration and Mitigation, Monitoring, and Reporting Program, a resolution adopting the Mitigated Negative Declaration and approving the Monitoring and Reporting Program, work under the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered.

As to the City of Clovis, findings based on the lead agency, City of Clovis' Final Environmental Impact Report, Resolution Certifying the Final Environmental Impact Adopting a Mitigation, Monitoring, and Reporting Program, and making findings under CEQA, including the adoption of a statement of overriding considerations, the work under the proposed project presents no new significant

or substantially more severe and environmental impacts beyond those already considered; and adopting a statement of overriding considerations.

As to the City of Woodland, findings that, based on the lead agency, the City of Woodland's Final Environmental Impact Report, Resolution Certifying the Final Environmental Impact Report and Subsequent Amendments thereto adopting a mitigation monitoring plan, and making findings under CEQA, including the issuance of a statement of overriding considerations, the work under the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered; and adopting a statement of overriding considerations.

Finally, I am presenting Item 17c with Build It

Green, achieving ZNE multi-family buildings. This research

project will assess precommercial technologies for all

energy-using systems to validate energy performance in four

low-income multi-family buildings. This will determine the

potential for achieving zero net energy in these buildings.

They are going to be located in Cloverdale, Atascadero,

Oakland, and Calistoga.

The research project will also focus on human interactions between building energy performance and health, comfortable, costs and convenience in a low-income

multi-family context. It will develop new analysis of rhythms for code-compliant software, provide proper credit to advance technologies that support the State's ZNE goals. And it will evaluate the feasibility of ZNE for large low-income multi-family housing, impacts on indoor air quality, market acceptance, and long-term persistence of energy savings.

And those are the three projects from our ZNE solicitation. And if you have any questions, I am available to answer those.

CHAIR WEISENMILLER: Thank you.

Any comments from anyone in the room or on the phone?

Yes, go ahead. Come on up and identify yourself.

MR. STONE: Nehemiah Stone with Stone Energy.

I'm sorry. Good afternoon, Chairman Weisenmiller and Commissioners. I want to thank you for this opportunity on behalf of the Build It Green team, which includes Association for Energy Affordability, the Lawrence Berkeley National Lab, Redwood Energy, and Stone Energy.

The reason I wanted to say something is that this is a milestone from my perspective. We have roughly two times the number of single-family homes in California as we have multi-family and we have well over ten times the amount of research on single-family as multi-family. It is

an area that has not had enough attention in the past. And for the Commission to meet its zero net energy goals and 2050 goals, we need to really pay attention to multifamily. There's more multi-family new construction in California now than there is single-family. It's a much more important part of the building stock than it has been in the past.

And this project is going to have more monitored data on how these buildings work than any other project that I know of on multi-family buildings. So I really want to thank you for this opportunity and I think this is going to be great for California and for helping the Energy Commission meet its goals.

CHAIR WEISENMILLER: Thanks.

Also EPRI, please.

MR. NARAYANAMURTHY: I'm Ram Narayanamurthy from EPRI. Thanks again to the Commission staff and to the Commissioners for the opportunity to work on scaling ZNE communities and working towards the 2020 goals.

Actually about a year ago Commissioner Hochschild and Commissioner McAllister started some of our current efforts in Southern California. And what we are proposing to do now is to scale it. What we did in Southern California was to do small neighborhoods, looking at grid integration, and the EPIC funding actually provides an

opportunity to go at community scale.

One of the interesting things that we have found is that we can obtain ZNE single-family pretty cost-effectively even today working with the builders. But what we want to look at is how customers to react it, how homeowners accept ZNE, and the impact of differing definitions of ZNE. We have found out that, for example, we can actually electrify the loads without significant impact of cost or the PV sizing, and that high performance envelopes are a big part of trying to get to ZNE. So we do look forward to working very closely with your codes and standards team to be able to take the learnings that we get from the EPIC project and being able to transfer that as we move towards our 2020 goals.

The other impact I wanted to emphasize is looking at the distribution grid and the impact of ZNE on the distribution grid. As we get to lower and lower energy use, we are finding that plug loads and appliances constitute a majority of the energy usage and that your low profile is significantly peaky. There is a lot of over generation in the morning time, a lot of steep ramps in the evening, and we'd love to have an opportunity to look at how the impact of solar electrification E and ER work together in ZNE communities.

So thank you again for the opportunity.

111 1 CHAIR WEISENMILLER: Okay. Great. Thanks. 2 Thanks for being here. 3 Anyone else in the room or on the line? 4 So let's transition to Commissioners. Obviously 5 we're in the position now where the rubber has got to hit 6 the road on ZNE, and so it's important to do the research 7 like this. It's particularly interesting that Build It 8 Green is really hitting some disadvantaged communities too. 9 So, again, it's important that as we develop the technology 10 the it's not just for suburban and track houses but 11 basically focuses on multi-family in this area. So, 12 anyway, I think these are all pretty good projects. 13 COMMISSIONER DOUGLAS: I think it's great and 14 it's really great to see the progress on zero net energy. 15 We have been, as the Chair mentioned, working towards those 16 goals for a long time now and the rubber is hitting the 17 road. And so it's really good to see, so I'll move 18 approval of this item. 19 COMMISSIONER HOCHSCHILD: Second. 20 CHAIR WEISENMILLER: All those in favor? 21 COMMISSIONERS: Aye. 22 CHAIR WEISENMILLER: This item is approved four 23 to zero. 24 Thank you. 25

Thank you.

MR. DOLL:

(Whereupon, Item 17 was approved.)

CHAIR WEISENMILLER: Let's go onto ADM Associates. Hi.

MS. GOUGH: Good afternoon. I'm Andrea Gough.

I'm with the Energy Assessments Division. I am here today to seek the Commission's approval for a \$1.1 million contract with ADM Associates, Incorporated. It's another project that's going to look at load profile. So the intent of this contract is to provide load shapes that characterize appliances, equipment, and other end uses over a 24-hour period in specific building and business types.

This project will be one of our first attempts to gather sub-hourly end-use metered data cross multiple sectors. ADM Associates will work with Energy Commission staff to find the best option for gathering data from investor-owned utilities.

The electric load data will be combined with other data such as weather and energy prices to develop current and project future load profiles, while considering how demand response activities could impact these load shapes. As part of this contract, ADM Associates will develop a technical solution which will allow staff to manage and manipulate the data for the project is completed so that we can continue to explore the impact on energy load as new policies are put in place.

A final benefit from this contract is that its findings will provide research opportunities to explore low cost and clean generation technology options that lower the risk of uncertain generation partners that occur over the course of a day.

With this brief description, I am here to seek approval of this contract with ADM Associates and to answer any questions you have.

CHAIR WEISENMILLER: Great. Thank you.

So any comments from anyone in the room? Anyone on the line?

So again let's transition over to Commissioners.

I think the gentleman from EPRI did a good set-up for this particular contract, of the need as we move more for technologies, studying better what they do to various load shapes, so.

COMMISSIONER SCOTT: I think my understanding with this one is also it's going to include transportation electrification and I think that that's an exciting component as well because that's going to become increasingly more important as we consider load shapes.

I will move approval of Item 18.

COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This item is approved four to zero. Thank you.

(Whereupon, Item 18 was approved.)

CHAIR WEISENMILLER: Let's go onto 19, Developing a Smart Grid of 2020: Clean, Safe, and Highly Intelligent. Please go ahead.

MS. SICHON: Good afternoon, Commissioners. My name is Consuelo Sichon with the Energy Research and Development Division. At last month's Business Meeting I presented four out of seven agreements resulting from a solicitation to fund research projects that develop smart grid operation and management practices or enhancements to existing distribution automation systems.

Today, staff is seeking approval of the remaining three agreements from that solicitation, which total almost \$3 million.

Item 19a is for a grant with the University of California, Irvine, to simulate microgrid controls over two distribution circuits at Southern California Edison's MacArthur Substation. This project will build on the substation automatic technology that was implemented during the DOE-funded Irvine Smart Grid Demonstration Project, by developing and testing a microgrid controller that can improve distribution system management, maximize the amount of distributed and renewable energy resources, and assess

the viability of these resources to participate in the retail of the electricity market.

The recipient will provide more than \$110,000 in matched funds and is also partnering with Southern California Edison on this project.

Research Institute, Incorporated that will result in opensource communication software that can be incorporated into
smart inverters to use the Distributed Network Protocol,
also known as DNP3. The Recipient's project team includes
stakeholders involved in other communication standards
groups, the energy storage energy, and the solar power
industry. This team will provide recommendations for
enhanced standards to the existing DNP3 Users Group that
address additional communication features for smart
inverters used with energy storage systems. The team will
also develop conformance testing for these inverters. The
Recipient will provide more than \$360,000 in matched funds.

Item 19c is for a grant with the University of California, Riverside to fund the development of algorithms that can be incorporated into existing distribution automation software to determine the optimal power flow and circuit configuration under namely, emergency, and outage recovery condition. Providing this additional intelligence and analytics could help distribution operators avoid

large-scale outages by leveraging distributed energy resources. The Recipient will provide more than \$680,000 in match funds.

All three projects will develop software tools and strategies that will help to efficiently and reliably integrate distributed and renewable generation into California's modern electric distribution system.

Staff requests approval of these three agreements, and I would be happy to answer any questions.

CHAIR WEISENMILLER: Thank you.

So are there any comments from anyone in the room or on the line?

Okay, so let's again transition to Commissioners.

I think we had a pretty good discussion the last time about how important smart grids are in terms of where we're looking at in terms of moving forward on greenhouse gas reductions. So, again, I think these sound like a pretty good suite or projects.

COMMISSIONER DOUGLAS: Yeah. Absolutely, it's really good to see this work move forward, and I'll move approval of this item.

COMMISSIONER SCOTT: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: Passes four to zero.

Thank you.

(Whereupon, Item 19 was approved.)

CHAIR WEISENMILLER: Let's go onto 20, Advancing Water and Energy Efficient Strategies and Technologies in California.

MR. MORI: Good afternoon, Commissioners. I am Kevin Mori, of the Energy Efficiency Research Office.

Today staff is recommending approval of the following six agreements. Items a through e are demonstration projects and Item f is a market facilitation project.

Vortez Process Technology for Energy and Water Savings, with EPRI. EPRI will demonstrate a water treatment technology that will use vortex processing technology to replace conventional water treatment systems for cooling towers on commercial buildings. This technology has the potential to save approximately four percent of a chiller system's energy use and will reduce water use to approximately 45 percent and chemical use to approximately 50 percent.

Item b is: Biofiltration as an Advanced Primary Treatment Method to Achieve Substantial Energy Savings, with Kennedy/Jenks. Kennedy/Jenks will demonstrate a biofiltration system that uses compression of the media to eliminate the need of internal moving plates, and will

serve as a primary treatment system in treating wastewater in the Linda County Water District Wastewater Treatment Plant. This demonstration has the potential to save up to 60 percent of energy compared to conventional primary treat systems and approximately one billion gallons of water per year.

Item c is: Energy Efficiency and Water Savings in Agricultural by Innovative Plant-Aware Irrigation, with EPRI. EPRI will demonstrate a real time smart irrigation system that uses sap flow sensors to determine when the crops need to be irrigated. This demonstration will be performed at three vineyards in Southern California and can save approximately 30 percent of water per year on irrigation.

Item d is: Low Energy Biofiltration System with Low Backwash Rate for Groundwater Contaminant, with BKT United. Staff has reviewed the Environmental Impact findings from the City of Barstow and has determined that the work proposed will not significantly impact the environment. BKT United will demonstrate a gravity fed biofiltration system that will remove nitrate and perchlorate from contaminated water in the City of Barstow. This system is expected to save approximately 70 percent of energy use compared to the conventional filtration method.

Item e is: Demonstrating Innovative Leakage

Reduction Strategies, with American Water Works Company.

American Water Works will demonstrate three innovative technologies for leak detection in municipal pipelines.

These technologies will be able to detect municipal leaks that are not visible on the surface through measuring acoustics and water flow, and looking at satellite imagery. This demonstration has the potential to save significant amounts of water and embedded energy for every leak found.

Item f is: Accelerating Drought Resilience through Innovative Technologies, with Water Energy Innovative. Water Energy Innovative will develop a replicable model for streamlining the planning, permitting, and financing of technologies that save both energy and water. Working with project partners, the Water Energy Innovative will pilot the model for Tulare County in an effort to develop the policy and program infrastructure needed to successfully implement this drought-resilient model and other similar rural agricultural communities.

Staff recommends approval of these agreements, and thank you. I will be happy to answer any questions.

CHAIR WEISENMILLER: Okay. First, is there anyone in the room who has any comments on these items?

Let's go to the line. Mr. Mitchell for 20d.

MR. MITCHELL: Kurt Mitchell. I'm the City
Manager for Barstow. And, first, we want to thank the

Commission for considering this proposal, and we look forward to completing this demonstration project to get this to demonstrate these savings, so again thank you for your consideration.

CHAIR WEISENMILLER: Thank you.

Anyone else on the line?

Okay. So again let's transition over to the Commission.

Obviously, last year was a big year for us to start focusing on water and energy and efficiency. This year now post of El Nino, I guess the good news is Northern California is relatively in good shape in its reservoirs, whereas Southern California basically had a fifth-year drought. And I think going out of El Nino, it's looking like next year is going to be dry, so this is certainly timely to be moving these projects forward.

COMMISSIONER DOUGLAS: Yeah, I agree with you. These projects are very timely and topical, and we need to not let fluctuations in weather cycles in any case take our eye off the ball in terms of really understanding what needs to be done and laying the groundwork for that. And so I strongly support this and I move approval of this item.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: So this passes four to zero. Thank you.

(Whereupon, Item 20 was approved.)

CHAIR WEISENMILLER: Let's go onto Item 21, National Aeronautics and Space Administration.

MR. HOU: Good afternoon, Chairman Weisenmiller and Commissioners. My name is Yu Hou. I am an Air Resources Engineer from the Research and Development Division. I'm here to present a proposed interagency agreement with the National Aeronautics and Space Administration.

This project is part of the joint effort between the Energy Commission and the Air Resources Board to characterize methane emission in California. The Air Resources Board is going to enter into a parallel contract with NASA. The Energy Commission project will focus on emission from the natural gas sector and the Air Resources Board project will focus on emission from other sources. Findings from previous projects supported by the Energy Commission and others all points to the existence of super emitters. Those super emitters emit disproportionately more methane compared to other emitters. Being able to quickly identify super emitters is an effective way to mitigate methane emissions. In this project, NASA will

direct the Jet Propulsion Lab to conduct research flight over an identified area in California. JPL will deploy its advanced infrared camera to identify super emitters in those areas. Approximately 120 flight hours is scheduled for this project.

Staff recommends the approval of this proposal. And I am happy to answer any questions.

CHAIR WEISENMILLER: Thank you.

I believe we have someone from the Air Board. Please.

DR. HERNER: Good afternoon, Commissioners. My name is Jornn Herner. I'm one of the managers in the research division of the California Air Resources Board and I'm here to talk in support of this project.

As mentioned, it's a collaboration between the Energy Commission and the California Air Resources Board and NASA JPL to conduct the survey. The project will be a big part of our responsibility under AB1496, which requires the State to do monitoring of methane hot spots that have been identified in the state, of which there is a large one in the southern San Joaquin Valley.

The project will also inform our inventories and also inform several efforts we have underway, as described in the short-lived climate polluting plan.

I also want to give a shout-out to you and your

I'm a great admirer of what has been accomplished here. I have several programs under my purview that are now a full-fledged program that started as small research efforts here, including the greenhouse gas monitoring network and also the response to Aliso Canyon. So it's been a really good collaboration between the two agencies. I think this is a good and important project, and I hope you will look on it favorably.

Thank you.

CHAIR WEISENMILLER: Thank you.

Anyone else in the room or on the phone?

I'll turn to Commissioners.

I think obviously the next series of projects basically start dealing with the sort of methane issues. It's a nice, interesting suite of projects, I think. And so certainly step one is trying to figure out what the inventory is and this has been successful technology to date on identifying emitters and, again I think, this survey is going to be important research.

COMMISSIONER HOCHSCHILD: A quick question. Are the flights, I think historically have been manned. Have they looked at using drones?

CHAIR WEISENMILLER: I have encouraged them because obviously an issue is always the safety of the

pilot. I mean this is a pretty well instrumented plane and in fact one of the projects that we did initially would be a different technology, but what RPE has done is miniaturize it and make a drone. And right now it's being tested at PG&E's storage site.

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COMMISSIONER HOCHSCHILD: I move the item.

COMMISSIONER DOUGLAS: I'll second it and I'll just note that it was great to have ARB here. I appreciated the comments. And just with respect to this and the other items on fugitive emissions, you know we had a workshop that was a joint workshop with the Air Resources Board and the California Public utilities Commission. It was part of the IPER. The IPER that we adopted in 2015 called for the Energy Commission in the 2016 Report to do an assessment of the best available knowledge about fugitive emissions from the natural gas system. And so the workshop that we did jointly with the Air Resources Board and the CPUC was a really, really incredibly valuable contributor to that effort. And certainly additional collaborative work going forward that helps us to both frame the research needs and research gaps and also collaborate on bringing this great information in and putting it to work in the policy space --

CHAIR WEISENMILLER: Right.

COMMISSIONER DOUGLAS: -- and finding ways to use

it to inform all of our programs and help us achieve our goals is where we need to be. And I think we're in a really good trajectory, to have that kind of coordination and that we do have it and have had it.

So, anyway, that was a long second.

CHAIR WEISENMILLER: Okay. All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: This item passes four to zero. Thanks.

(Whereupon, Item 21 was approved.)

CHAIR WEISENMILLER: Let's go onto 22, ICF Incorporated.

MR. HOU: So hello again. I will be presenting this item as well. The second agreement I will be presenting is with ICF Incorporated. It's also related to methane emission from the California natural gas system.

Recent research findings points out that methane leakage after-meter from buildings is contributing to the overall emissions. So in this proposed grant, ICF Incorporated was competitively selected to conduct research on the emissions from commercial buildings.

The project will measure emissions at both appliances and the building levels. In the beginning, a pilot study will test about 30 buildings, and the recipients will then revise the study based on preliminary

1 results from the pilot study, and a full-scale 2 investigation of about 100 buildings will be tested. 3 Staff also recommend approval of the agreement. 4 I will be happy to answer your questions. 5 CHAIR WEISENMILLER: Great. All right, thank 6 you. 7 Any comments from anyone in the room or on the 8 phone? 9 Well, again, Commissioners, I think this is a 10 good project again on this whole methane emissions issue. 11 It's certainly is the next step in trying to understand 12 where the fugitive emissions are coming from. 13 COMMISSIONER DOUGLAS: Absolutely, so I move approve. 14 15 COMMISSIONER SCOTT: Second. CHAIR WEISENMILLER: All those in favor? 16 17 COMMISSIONERS: Aye. 18 CHAIR WEISENMILLER: This passes four to zero. 19 Thanks. 20 (Whereupon, Item 22 was approved.) 21 CHAIR WEISENMILLER: Let's go onto 23, University 22 of California, Irvine. 23 MR. SMITH: Good afternoon, Commissioners and the 24 Chair. My name is Tim Smith. I'm a Mechanical Engineer 25 for the Research and Development Division. I am here in

regards to an interagency agreement with U.C. Irvine. The project is to examine the natural gas system of Southern California and to identify the vulnerabilities of the system to the effects of climate change.

The idea is to look at compounding effects of land subsidence, sea level rise, and extreme weather events on the gas system. The research also takes into consideration the demands of gas due to intermittent recyclable energy sources. The work is to determine what changes and improvements to the gas system would be needed to significantly reduce the system's vulnerability to climate change.

One of the final products coming from this research is a GIS map of the Southern California gas system to provide critical information on the weaknesses of the system. And, lastly, this research is part of the Fourth Assessment.

CHAIR WEISENMILLER: Great. Thank you.

Does anyone in the room or on the phone very comments on this?

Commissioners, again I think this is a good project and certainly building off of the methane issues, gas system, and adaptation.

COMMISSIONER DOUGLAS: Yeah. Absolutely, I agree with that, and I move approval.

COMMISSIONER SCOTT: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

CHAIR WEISENMILLER: So this passes four to zero.

5 Thank you.

(Whereupon, Item 23 was approved.)

CHAIR WEISENMILLER: Let's go onto 24, University of California, Santa Cruz.

MR. SMITH: Right, that's me again. It's another interagency agreement, with Santa Cruz. This project is now to examine the Northern California gas system and identify the risks to climate change. This research looks a little bit more into inland flooding, mudslides, wildfires, along with subsidence, and sea level rise.

This is a system-level analysis of the natural gas system, coupled with economic models to address the vulnerability of the system. So they're trying to identify resilience options, the timing of implementation, but also look at the economics of it.

This project is also part of the Fourth

Assessment. And, lastly, I'd like to talk about that this is a combination of in November you guys approved an agreement with ICF to look at San Diego, and so now we have San Diego covered, Southern California, and Northern California.

CHAIR WEISENMILLER: Great. So any comments from anyone in the room or on the phone?

Well, again I think this sort of follows off the last one. It's good to really get that complete coverage of the state.

COMMISSIONER DOUGLAS: Absolutely. Go ahead.

COMMISSIONER SCOTT: I was going to move approval of Item 24.

9 COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: All those in favor?

COMMISSIONERS: Aye.

12 CHAIR WEISENMILLER: This has been approved four

13 to zero. Thanks.

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MR. SMITH: Thank you.

(Whereupon, Item 24 was approved.)

CHAIR WEISENMILLER: Let's go onto 25. 2016

Industrial Natural Gas Energy Efficiency Grants.

MR. KAPOOR: Good afternoon, Commissioners. I am Rajesh Kapoor from the Energy Efficiency Office. Staff is recommending approval of two agreements with Gas Technology Institute. The following two projects are the results of competitive solicitation to demonstrate the precommercial or emerging energy efficient technologies that can directly reduce natural gas use in California's industrial sectors.

The first agreement will demonstrate a low-cost,

low-temperature waste heat recovery system to validate the natural gas savings and system performance, and develop a tool for determining the potential use of this technology at any site.

The demonstration site is PL Developments, an industrial chemical processing plant in Lynwood, Southern California. In this project the existing rooftop HVAC unit will be replaced with a Waste Heat Recovery Rooftop Unit, along with a water storage tank and piping. This new unit will have the ability to remove heat from the occupied space and use it to preheat process hot water. This technology has the potential to reduce natural gas consumption for water heating by 25 percent at that demonstration site.

The second project will demonstrate the recovery of water from hot, humid industrial exhaust gases. The demonstration site is United States Gypsum Company in Plaster City, Southern California. This project will demonstrate a technology for recovering water from hot and humid industrial exhaust gases. The humid exhaust gases from commercial and industrial drying processes contain 20 to 50 percent water vapor. The heat of the exhaust gas can be used efficiently to recover clean water. The recovered and recycled warm water takes less energy to heat than the cold utility water.

1 The technology uses only a small amount of 2 electricity and the closed-cycle cooling loop with no 3 moving mechanical parts is Company, inexpensive, and 4 scalable. This technology has the potential of saving up 5 to 20 percent of water use on the site and reducing the 6 natural gas use by 2 percent. Twelve months of monitoring 7 and verification will determine the actual natural gas and 8 water savings and costs associated with this project. 9 If you have any questions, I am happy to answer. 10 CHAIR WEISENMILLER: Great. Thank you. 11 Any comments from anyone in the room or on the 12 phone? 13 Then again I think, Commissioners, 14 obviously the combination of reducing natural gas use in 15 industry and also saving water, it's certainly pretty 16 appealing. 17 COMMISSIONER DOUGLAS: Absolutely. Move 18 approval. 19 COMMISSIONER SCOTT: Second. 20 CHAIR WEISENMILLER: All those in favor? 21 COMMISSIONERS: Aye. 22 CHAIR WEISENMILLER: Passes four to zero. Thank 23 you. 24 (Whereupon, Item 25 was approved.) 25 CHAIR WEISENMILLER: Let's go onto Item 26,

Natural Gas Pipeline Safety and Integrity Management Research Grants. Avtar.

MR. BINING: Thank you. Good afternoon. I am

Avtar Bining from Energy Research and Development within

the Energy Commission. The item I am presenting here today

is the result of a competitive solicitation or Grant

Funding Opportunity released by the Energy Commission.

Four great agreements are recommended for your approval.

The first three Grant Agreements are with the Gas Technology Institute as the recipient.

Under the first agreement, the recipient will conduct a thorough assessment of current status of natural gas pipeline safety and integrity management technologies, identify and research the gaps, and determine further research needs in discussions with and input from various stakeholders.

In the second agreement, the recipient will demonstrate a high accuracy mapping system to create an display high accuracy maps and information of natural gas pipelines in California. The ability to present up-to-date high accuracy maps to stakeholders during the routine operations and emergency situations will reduce the risk of pipeline damage and will promote situational awareness to facilitate improved and timely responses and decisionmaking.

In the third agreement the recipient will demonstrate the Global Positioning System-based encroachment notification and alert system to increase pipeline situational awareness of equipment operators and significantly reduce the risk of damage to the natural gas pipelines and infrastructure.

The fourth grant agreement is with Det Norske

Veritas of USA as the recipient. Under this agreement, the recipient will demonstrate an advanced risk assessment methodology for managing the integrity of natural gas pipelines in California. This includes assessing corrosion and mechanical damage threats by using advanced methods and models that can also be used by pipeline companies for improved integrity management and decisionmaking.

I request your approval of these four agreements. I will be happy to answer any questions. Thank you.

CHAIR WEISENMILLER: Thank you.

Let's start with the gentleman from GTI in the room -- or actually on the line. Yeah, so first is anyone in the room?

Now let's go to the gentleman on the line.

MR. MORRIS: I'm Robert Morris from GTI, to answer any questions regarding the first three, a, b, and c, proposals. I would like to thank the Commission for the opportunity. I'm looking forward to working with you as

134 well. CHAIR WEISENMILLER: Thank you for calling in on Obviously gas pipeline safety is a very important issue for California, and we're certainly happy to be able to work with the PUC to strengthen the sort of technology and research in this area. COMMISSIONER DOUGLAS: I absolutely agree with that and appreciate you calling in. And so I'll move approval of this item. COMMISSIONER SCOTT: Second. CHAIR WEISENMILLER: All those in favor? COMMISSIONERS: Aye. CHAIR WEISENMILLER: This item also passes four to zero. Thank you. MR. BINING: Thank you. (Whereupon, Item 26 was approved.)

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17 CHAIR WEISENMILLER: Let's go onto the minutes.

18 The minutes of May 17.

19 COMMISSIONER SCOTT: I move approval of the

20 minutes.

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21 COMMISSIONER DOUGLAS: Second.

22 CHAIR WEISENMILLER: All those in favor?

23 COMMISSIONERS: Aye.

24 CHAIR WEISENMILLER: Approved.

(Whereupon, Item 27 was approved.)

CHAIR WEISENMILLER: Let's go onto Lead

Commissioner and Presiding Member Reports. Commissioner

Scott.

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Hi. COMMISSIONER SCOTT: So just a couple updates for you all. I've had a chance to go and do a little bit of speaking on behalf of the Energy Commission. I participated a few weeks ago at the International Partnership for Hydrogen and Fuel Cells in the Economy. This was hosted by the Department of Energy in Berkeley and it was a fantastic opportunity. These meetings are held all around the world, so there were folks from Germany, from Japan, from Korea, from Denmark, from Norway. really have a chance to see what others are doing on hydrogen infrastructure, what are the challenges that they are finding, whether some of the solutions that they have come up with, and have a chance to tell California's story on hydrogen infrastructure.

It's terrific. Wade Crowfoot was there and had a chance to really talk about the Governor's vision and how zero emission vehicles, including how hydrogen fuel cells fit in with that. Then I went and talked in a little bit more detail about with we're doing here on infrastructure, and Alberto Ayala was there from the Air Resources Board perspective and really talked about the zero emission vehicle mandate and how the vehicles fit into the vision.

So it was a nice chance to highlight California's leadership and tell our story before an international group of folks.

I also had a chance to speak at the Greenlining Economic Summit, which was a couple of weeks ago. That was just fantastic. Alana was there as well. Again, it was kind of cool because I was on a panel of a pretty broad set of people, actually. I was the government person, there was a local government person. There were folks from Silicon Valley and some other key industries in California. And we were really talking about what can we do to increase diversity within our agencies and organizations but also as part of the whole dialogue.

And so it was a great chance to highlight, Chair Weisenmiller, your leadership on the EPIC program and our commitment to diversity there that I followed on for the Transportation Program that turned into an Energy Commission wide commitment on diversity. Some of the work we're doing under AB865, to increase diversity and equitable both at the -- to make sure that the Energy Commission staff mirrors what California looks like, but also the folks here are able to apply for and get the benefits of the programs that we have. And then also what we were doing a little bit on SB350 and the study and the Barriers Report. So it was a really interesting panel, a

dynamic and interesting set of folks. There were probably about 500 people in the room, and it was great to have a chance to highlight what the Energy Commission is doing in terms of diversity.

And then I wanted to introduce to you my intern for the summer. I tried to ping her so she could come down, but I don't think she made it, but her name is Adrianna Gomez, and she is from U.C. Merced. And we're really delighted to have her on the team. She is going to help out Alana with the Summer Institute, and there are a couple other research projects. She is fantastic. She was inspired when she was in high school. I guess she came and heard Commissioner Douglas speak and has been inspired and really wanted to work at the Energy Commission ever since. So I'm going to try to get a project with Commissioner Douglas's Office for her as well.

And then I want to say welcome in advance to my new advisor. His name is Matt Coldwell. And he will be joining my team starting on Monday. So I look pretty much forward to that.

CHAIR WEISENMILLER: And congratulations on your confirmation.

COMMISSIONER SCOTT: Thank you. I'm so happy.

COMMISSIONER DOUGLAS: Thank you. So I have a
few updates. Back on May 25th we had a workshop on some

emerging trends in our energy sector, and this one specifically we were looking at offshore wind, both in terms of the potential of that technology, the constraints, and environmental implications and concerns that could be presented by the technology and the permitting pathway. And we had a large number of both state and federal agencies participate.

There was a lot of discussion during the workshop of how we can really benefit from the playbook developed during the development of the Renewable Action Team and the Renewable Energy Policy Group and the high-level coordination that occurred between the state and federal government and governments in renewable energy permitting, and how that kind of coordination is what is likely to be important as we look at this technology which, you know as I was careful to say, needs to compete and may or may not, depending on the development of the market, play a significant role in California looking forward, but certainly has some attributes that are worth considering and some benefits that are pretty interesting.

And so Commissioner Hochschild, who was at the workshop and has been working on this issue for some time, will have more to add I think on that topic. But it was a very good workshop. It came in the context of a letter sent by the Governor to the Secretary of the Interior

requesting that the Bureau of Ocean Energy Management establish a state and federal task force to coordinate on this issue. And so there are discussions now of the establishment of such a task force and that level of coordination.

A lot of speakers at the workshop also talked about the importance of geospatial planning and really bringing the tools to bear, you know many of which we have a lot of experience with from planning for terrestrial renewable energy in order to understand opportunities and constraints in the offshore context.

There was a meeting organized, a roundtable conversation organized by the Bureau of Ocean Energy the next week that I attended and speak briefly at and Commissioner Hochschild spoke briefly at, I think electronically.

And, I'm just looking through my calendar here, and the other report I think I'll make, I already mentioned the joint ARB-Energy Commission-PUC workshop on fugitive emissions held at the CALEPA building. That was another really helpful IPER meeting focusing on that issue.

And I think that that is my report for this item.

COMMISSIONER HOCHSCHILD: Yeah, just building on
that, it was really wonderful to have Commissioner

Douglas's expertise at the Offshore Wind Workshop. I think

the RCP and your experience there is really going to be useful. And having had no meetings about the topic of offshore wind certainly as long as I have on the Commission, we had three now in the last three weeks, including one organized by BOEM, and I think just to clarify, the first project has been submitted by Trident. That's underway. And they're going through their sequence of steps they have to take this summer. But I think our goal is really just to clarify what the process is because there is something like 30 different permits required and a lot of interagency coordination and communications needed for that.

The big news on my end is we got just last week out of the PUC this vote to fund the balance of the NSHP program. And I really want to extend my gratitude to the Chair who has been a supporter since the beginning. This is really our glide path for getting to zero net energy in the residential sector, been an absolutely critical, and the success we're seeing, these heavy-weight, large-scale home builders like KBHomes and Meritage and Lennar and others, and so it was a really great validation of our team's work to execute successfully the administration of this program and to get those funds granted to us and the continued administration granted to us by the PUC. So we're grateful for that.

One of the questions I will be looking at along with Commissioner McAllister is a number of communities now in the state are mandating solar on new -- simply taking, like San Francisco did last month, taking our Solar Ready provisions and basically just making it mandatory. So that's essentially mandating a very small system, one to two kilowatts. Should we be funding PV where it's already mandated is the question I want to look at, as actually I don't want to waste funds. So we're going to be looking at.

I do want to share a few other updates.

I had a grant roundtable with the Silicon Valley Leadership Group last week, 15 of their top companies, Apple and Tesla and Solar City and NRG and GM and some others. And they're going to be doing an energy summit next month. I will be there with Senator de Leon. And the Chair and I and Ronald Spier are going to be visiting Apple's new headquarters, which is one of the greenest corporate headquarters being built, some time later this summer.

And then on the Clean Energy Administerial, the Chair and Commissioner McAllister and I were there last week. Very fruitful meeting. A series of sort of overlapping conferences held at the same site, but I will just say the Governor's speech there was the highlight of

the whole thing. He is speaking with greater passion and conviction on climate than ever before, and it really has helped. You can see in my discussions talking to some of the ministers and other people there, just the example California is making a big difference. And so his message was to all of us: Keep going, be bold. And the Chair did a great job as well in his keynote opening remarks, along with Mary Nichols.

And that's it for me.

COMMISSIONER DOUGLAS: All right. Thank you, Commissioner Hochschild.

COMMISSIONER SCOTT: My intern has just come in. Her name is Adrianna Gomez.

I just want you --can you just stand up and wave?

That way everyone will know her.

Welcome. We're glad to have you here this summer.

COMMISSIONER DOUGLAS: All right. Thank you. We are happy to have you onboard.

Very good. So the Chair had to just step out to take a call, so I'm just going to run us through the last couple items here.

Chief Counsel's Report.

MS. VACCARO: I don't have a report, but as is the custom and practice of the Chief Counsel's Office, we

have introductions because we have a few new faces in our office. I'm very pleased to introduce Ralph Lee -- wave or stand. Ralph is a Senior Attorney III who's joining us, and he's coming out of the private sector, so private practice, which for us is really pretty different, and I think it's just one more thing that will allow our office to look at how we approach problems and to get that injection of a different energy.

And speaking of energy, I have three terrific students, I think actually I've got the two summer interns from U.C. Davis, which is Jordan Fong and Rudy Faez, which we all know Rudy from working in Commissioner Hochschild's Office. I feel very fortunate to have the two of them. And then we also have Tiffany Michu, who is a Ph.D. student from Loyola, and she has already passed the bar and she's a graduate fellow in our office. And, as usual, we just get a great group of students that are interested in the Energy Commission. We're just very excited to have all four of them join our office.

COMMISSIONER DOUGLAS: Well, that's great. Thank you very much and welcome, all of you.

Okay, let's see here. Executive Director's Report.

MR. OGLESBY: I'd like to start with an introduction as well, I have another item as well, but

starting with Rob Cook, he has big shoes to fill but he's highly qualified. He's our new Deputy Director for the Administrative Services Division. And, by way of background, he graduated from UCLA with an undergraduate degree and then obtained an MBA from U.C. Davis.

He joins us most immediately from the Department of State Hospitals, which is the third largest state agency with a lot going on. And he had served there as chief operating officer. And prior to that he served as acting deputy director for the Interagency Support Division of the Department of General Services.

And he was also the executive officer of the Public School Construction under Department of General Services. He also has legislative staff work in his background, and where I first got to know him more than a couple of decades ago, so with that let me introduce Rob and welcome him here.

COMMISSIONER DOUGLAS: Great. Well, thank you, Rob, welcome. Thank you for coming onboard.

Oh, and you have another item.

MR. OGLESBY: I have another item and that's basically to take this moment to observe that this is our last business meeting of the fiscal year. And, once again, we didn't run it down to the wire at the last day of the month. We had a fairly orderly year, and credit to all of

staff for bringing items to you that are developed and ripe and not having too severe of a backloaded year.

In terms of the few metrics, the items that came before you as a Commission, in EPIC we had a 104 projects totaling \$218 million this past year; for PIER, 22 projects, totaling about \$22 million for this past year; on the ARF VTP program, 83 projects, totaling \$72 million; and for ECCA, a much smaller program, we did 10 loans, totaling \$16 million.

It goes without saying that not every item of work that the Commission deserves recognition for comes before you as a Commission to vote on, but some of the ongoing work that has good metrics, I'd like to share with you also are the Prop. 39 work. and to date we have processed 927 applications which total 639. That's a running total. And for the New Solar Homes Program, just for the last year, we've actually put about \$20 million out the door which benefits almost 5,000 homes, but because it's a reservation system, at the same time we have reservations that total 46 million for homes coming online, and we'll be getting the funds out as those get completed.

So with that as an overview, that's how we spent the last 12 months.

COMMISSIONER DOUGLAS: Well, thank you, Rob. And we all know how much they have been and we have

accomplished a lot in this fiscal year. And it has been, as you say, an orderly end of the fiscal year. We are not down to the last day, we are not having -- we are having reasonable-sized agendas. And that really does speak to the fact that you and the management have managed to bring items forward on a schedule that has us looking at contracts year round and not -- it's understandable when of course there is a deadline, and that sharpens the mind. And some things we tend to have a little more on the agenda in the May, June, July timeframe, but it has been pretty reasonable. And so congratulations and thank you.

So let me go on now to the Public Adviser's Report.

MS. MATHEWS: Good afternoon. Of course my
Office has supported a number of workshops within each
division here each month, but one of the highlights is what
Commissioner Scott said, was the Greenlining Economic
Summit, and I found it to be very valuable. I wasn't a
panelist, but I did have the opportunity to facilitate kind
of a session of workshop and it dealt with kind of
innovation and how we deal with various issues. But what
was particularly interesting to me is there was one session
on climate change and disadvantaged communities. And what
came out of that was the impact of displacement or
indenturefication and low-income and disadvantaged

communities. So while there may be a general resources, such as EnviroScreen, the nature of that particular community might be changing and that's something that you have to be sensitive to, or there might be some environmentally progressive or good projects but maybe community members have not necessarily been educated so they are not supportive of that.

And I think it's important to mention that and to bring that about because we can't just have our policy be one dimensional, it has to be responsive to changing issues that come up, and that's one of the very few forums where that can come up.

And then I will segue because another form that it can come up is in our 350 Barrier Study. That's obviously one quickly-identified barrier that can be included. And, as the lead of that study that we're doing here at the Energy Commission, I just wanted to provide a more detailed overview of what we've been doing. Now I've briefed all the Commissioners, but I'll just very quickly, I came onboard as the lead at the very end of January, the beginning of February, I think February 4th was around the time of my first meeting, so we were able to move quickly and get our dockets open on February 9th, and we started receiving our first data dump or literature review, article involving the Barrier Study in March.

I also started in February meeting with interested stakeholders, which included the Asian Pacific Environmental Network, Greenlining, the Sierra Club. also had an opportunity to speak before the CPUC's Low-Income Board Presentation on February 23rd. In March I continued to meet with interested stakeholders which included the 350 coalition. We met twice, March 14th and the 22nd. I also had an opportunity to meet with the CPUC's Low Income Program staff, March 18th. We were able to define the scope of the literature review, as well as the outline that we were going to base the study off of. And I attended and was on the agenda for ARB's Kick Off Workshop. We have a good relationship with ARB and the CPUC, so we coordinate on our workshops. So that was the first joint -- not necessarily joint, but where we had our first coordinated activity.

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In April, I met with another interested stakeholder besides the 350 Coalition, also the California Community Colleges because they're interested in the workforce piece of the Barrier Study. One component is to look at small business contracting opportunities in disadvantaged communities.

We continued in our research. In May we continued to have our monthly 350 Coalition meeting. And I started to have a monthly call with ARB and their lead for

the 350 studies. And I have a biweekly call with the CPUC's lead for their 350 initiatives, to talk about the advisory committee. So we kind of meet every two weeks, just to keep touch.

We also began to draft and have -- we established our first draft of our interview questions that we anticipate using in our workshop.

June 3rd, this month, we had our introductory workshop which defined the scope of what the study will be; identified the four locations where we're going to have our main workshops, which will be Fresno, Oakland, L.A., and Riverside. And we actually do have the first confirmed date for our Oakland workshop, and Commissioner Hochschild will be at that one. That's going to be August 19th.

We are still working with our community partners to solidify the other three dates. And we are planning to have at least one workshop completely in Spanish, but we also want to work to have translation services available at every workshop.

Let's see. And on June 20th, this is actually going to be a very busy month, the comments are due for the scoping workshop that we had on June 3rd, as well as there will be an Energy Equity Experts' Roundtable. So it's important to have workshops in the community, but we also want to do a focus group and a roundtable with those would

advocate and have the expertise of the knowledge of firsthand issues they face and how that translates with renewable technology and efficiency technologies, so kind of have that technical expertise. That's going to be June 20th in Berkeley.

And then also the Environmental Justice Advisory Committee of ARB, they have a series of community meetings, and they have a scoping plan and a community outreach that they are going to be doing this summer. And one component of that is energy. They're looking at transportation and air quality. But the energy portion will actually be very beneficial to us. So I will also on June 30th be attending that myself, or someone on our committee will be attending that.

Then moving forward, July through September, is when we'll have the rest of our workshops and have the draft completed and post that for public comment.

The last thing I did want to mention is that I had a very ambitious goal to have not only workshops but we'll say community outreach, and I said between 10 and 15 or 20, and I know I got a lot of crazy, weird looks, but I think it is possible. And it's possible not only if we don't do it ourselves but we partner. So I am happy to report that we are partnering with the CPUC, and they are doing some low-income oversight studies, and they had 10

interviews, and they will let us participate, so we are not interrupting the interview, but the information that they will be collecting from low-income ratepayers and the barriers that they're facing and how they view climate change policy and also trust. Regulatory agencies, when they have —they are some of the questions that they are concerned about. But we will be able to participate in those 10 interviews.

And then also with the Environmental Justice

Advisory Committee, they have 10 workshop this summer. And
they cover a lot of the remote areas that we may not
necessarily be able to get to, which includes Coachella, I
mentioned Oakland, San Bernardino, Imperial Valley,

Modesto, San Diego, the South Bay, and South L.A. So we
will have an opportunity to capture data from each of those
on the energy sector as regards to the barriers.

And that, I believe, is the last update that I wanted to share.

We still have some more ideas that are being vetted out, so we will probably have another update next month, but that's going to be my plan forward, as part of the Public Adviser's Report, I will update you on the 350 Barriers Report Study.

COMMISSIONER DOUGLAS: Thank you, Alana. You know I really appreciate this update and it's clear that

you've brought just a tremendous amount of energy and enthusiasm and new ideas to this project and especially to making sure that we do a lot of outreach, a lot of coordination, and that we get a lot of input on the Barriers Report, I think is really good to see. And I also know that you've got a strong team behind you. And I really appreciate these updates at the Business Meeting. Ι think we all do, because this is obviously a very high priority for us and it's something that we want to participate in. And, as we have discussed, certainly having for some of the workshops, having Commissioners participate is important, and Commissioner Hochschild I think has already had a chance to do that. We are all going to be doing that --

MS. MATHEWS: Yes, you are.

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COMMISSIONER DOUGLAS: Yes, we are. And we're delighted to be doing it. So thank you very much for taking this on. I mean you have a lot to keep you busy already and this is a big project and you're bringing a tremendous amount of energy into it, so I really appreciate it.

COMMISSIONER SCOTT: I also wanted to say thank you very much for the report. As the Public member on the Energy Commission I am cheered to hear how much leveraging you're doing of the other opportunities for outreach so

that we are able to spread our outreach and get as much information back as we can as we're putting together the report.

The other thing I think is really important to have these updates for all of us because of the crosscutting nature of SB350, and it's got the renewables component, it's got the energy efficiency component, it's got the transportation component, it's got a research component. And so for us to be able to hear information and potentially share ideas as we go forward, I think, is really important. So I appreciate the great update and your enthusiasm. And thank you very much for your leadership on this.

MS. MATHEWS: One other thing I do want to mention is that June 30th in the morning I actually will be in Truckee, so we are making sure that we have involved Sierra and Northern California rural communities.

COMMISSIONER DOUGLAS: All right. Well, thank you again, and with that I think we're onto the Public Comment part of the agenda. Is there anyone in the room or on the Webex who would like to make public comment at this time?

All right, hearing none, we're adjourned.

(Whereupon, the Business Meeting was adjourned at 2:46 o'clock p.m.)

## REPORTER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 30th day of June 2016.

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