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BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the Matter of:)
)
Business Meeting)
)

CALIFORNIA ENERGY COMMISSION HEARING ROOM A, 1516 NINTH STREET SACRAMENTO, CALIFORNIA

WEDNESDAY, MARCH 11, 2015 10:00 A.M.

Reported by: Kent Odell

APPEARANCES

Commissioners Present

Robert B. Weisenmiller, Chair Andrew McAllister David Hochschild Janea Scott Lezlie Kimura-Szeto, Her Policy Advisor

Staff Present:

Rob Oglesby, Executive Director Kourtney Vaccaro, Chief Counsel Alana Mathews, Public Advisor Kevin Bell, Senior Staff Counsel, Technical Staff, Air Quality Nancy Fletcher, Technical Staff, Air Quality Cristopher McLean, Electric Transmission Staff Virginia Lew, Energy Efficiency Research Office

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Kevin Barker Lezlie Kimura-Szeto	2 3
Jonathan Fong	4
Dale Rundquist	5 and 6
Daniel Johnson	7
Todd Ferris	8
Joe Loyer	9
Cheryl Closson	10
Shahid Chaudhry	11 and 12
Larry Rillera	13
Laurie ten Hope	14
Alan Solomon	15
Prab Sethi	16
Gina Barkalow	17

Others Present (* Via WebEx/Phone)

Dr. Peter Van Deventer, Diplomatic Liaison, Director of Coast to Coast Mobility Program for Consulate General, The Netherlands Charlene Wardlow, Ormat Nevada, Inc. *Patrick Hayes, General Manager, Mammoth Community Water District *Steve Nelson, Bureau of Land Management (BLM) Manny Robledo, Electric Operations Manager, City of Anaheim, Operating Agent for the Canyon Power Plant

Matt Wolske, Project General Manager for Panoche Energy Center Robin Shropshire, Environmental Health and Safety Coordinator for Panoche Energy Center Eric Emblem, Joint Committee on Energy and Environmental Policy *Erik Andis, National Energy Management Institute *Chris Walker, California Association of Sheet Metal and Air-Conditioning Contractors Jerry Salamy CH2M Hill *Vicky Lee, South Coast Air Quality Management District Greg Wheatland, Otay Mesa Energy Center Barbara McBride, Otay Mesa Energy Center Renee Webster-Hawkins, Executive Director, California Pollution Control Financing Authority (CPCFA) Jason Bradley, Program Manager, California Pollution Control Financing Authority (CPCFA) Ben Kaun, Project Manager, EPRI Leila Madrone, CEO and Co-Founder, SunFolding Sharon Garvey, Cal Bio

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1	P R O C E E D I N G S
2	MARCH 11, 2015 10:05 a.m.
3	CHAIRMAN WEISENMILLER: Okay, let's start
4	the Business Meeting with the Pledge of
5	Allegiance.
6	(Whereupon, the Pledge of Allegiance was
7	recited in unison.)
8	CHAIRMAN WEISENMILLER: So good morning.
9	In terms of today's agenda, Item 2 will be held.
10	Item 15b will also be held, and Item 10 will come
11	right after Item 3. So let's start with the
12	Consent Calendar and I need first a motion, but
13	actually I have a statement for you to add as
14	part of that, whoever is going to do the motion.
15	Kourtney, do you have that?
16	MS. VACCARO: So with respect to the
17	Consent Calendar, the recommendation is that the
18	Motion should be approving the Consent Calendar,
19	noting that Item 1b also includes approval of the
20	Order that staff is recommending the Commission
21	approve. And that Order has been made publicly
22	available and available to the Commissioners
23	before this meeting.
24	COMMISSIONER SCOTT: I move approval of
25	the Consent Calendar, noting that Item 1b

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1 includes approval of the Order.

2 COMMISSIONER MCALLISTER: I'll second. 3 CHAIRMAN WEISENMILLER: All those in 4 favor?

5 (Ayes.) The Consent Calendar is approved6 4-0.

7 Let's go on to Item 3. Memorandum of 8 Understanding with the Province of Noord.

9 MS. KIMURA-SZETO: Good morning, 10 Commissioners. My name is Lezlie Kimura-Szeto 11 and I am Policy Advisor to Commissioner Scott. 12 Today our office is seeking your approval of a 13 Memorandum of Understanding between the Energy 14 Commission and the Province of Noord Holland and 15 the Netherlands on Sustainable Transportation 16 Energy Activities.

17 Similar to California, who is leading the 18 way in the United States on Sustainable 19 Transportation in terms of Electric Vehicle 20 numbers and charging infrastructure, the 21 Netherlands leads the way in Europe. This is a 22 result of strong commitments by both states to 23 implement favorable Zero Emission Vehicle 24 policies, incentives, research and development, 25 and public outreach efforts toward meeting our

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respective greenhouse gas emission reduction and
 renewable energy goals.

3 In October of last year, Commissioner Scott visited the Netherlands as a California 4 delegate with the goal of identifying strategic 5 6 opportunities to exchange expertise and 7 experience in these areas. This agreement is a 8 result of that trip and it is intended to guide a 9 mutually beneficial exchange of information and 10 development of tangible projects related to the Energy Commission's and Province of Noord 11 12 Holland's respective Zero Emission Vehicle work, 13 with a particular focus on Electric Vehicle 14 infrastructure.

15 If approved, this working agreement will result in further work between Commissioner 16 17 Scott's office, and the Netherlands Provincial 18 Government Staff Liaison, on charging 19 infrastructure models related to multi-unit 20 dwellings, Faster Charging, and the role of 21 utilities over the next three years. This is a 22 cooperative agreement, no funds are being 23 exchanged between agencies, and there are no 24 legally binding obligations being created. 25 Commissioner Scott's office anticipates executing

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1 the work of the Agreement on behalf of the 2 Commission with no impact to staff resources. 3 Participating in this meeting today and 4 interested in providing comments is Dr. Peter Van Deventer, Diplomatic Liaison and Director of the 5 6 Coast to Coast Mobility Program for the Consulate 7 Generation of the Netherlands. 8 If the Commission votes to approve the 9 agreement, we would ask Dr. Van Deventer and 10 Commissioner Scott to come to the podium 11 immediately afterwards for the signing of the 12 MOU. 13 With that, I'd like to thank you for your time and consideration of this item, and answer 14 15 any follow-up questions you may have. 16 COMMISSIONER WEISENMILLER: Thank you. 17 Commissioner Scott. 18 COMMISSIONER SCOTT: Great, well, I would 19 just like to thank Lezlie so very much for all of 20 her excellent work on this. As she mentioned, 21 she and I had a chance to visit the Netherlands 22 last year and learn more about all of the 23 innovative transportation policy and technology 24 work going on there. We saw things like the 25 solar road where they've got solar PV baked into

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1 concrete, and they've made it into a bike path, 2 and it's connected right up into the grid. 3 They're working to see if they can make the glass 4 that goes on top stronger so that you could 5 actually put it on a road and cars could drive 6 over it. They have a great set of innovative 7 research and development campuses where the 8 students are working on things like Ostella, 9 which is the four-person solar powered car that 10 they brought over to the U.S. late last year. I 11 had a chance to see some inductive charging and busses, we saw all-electric port terminals, the 12 13 work that the Netherlands is doing on electric 14 mobility is really exciting and I very much look 15 forward to partnering with them. 16 I was also really struck by the Dutch 17 collaboration model which they call the Triple 18 Helix, or the Golden Triangle, and it's 19 government, businesses, and academia work 20 together to solve some of our most pressing 21 environmental challenges. So in sum, I think 22 that there is a lot that we'll all be able to 23 learn from each other as coast-to-coast leaders 24 in the Electric Vehicle space, so much so that I

25 am volunteering my office to do the leg work on

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1 this, and we'll keep -- the resources will all 2 come out of my office to make this happen. And I 3 really look forward to exchanging notes with our 4 Dutch friends on the best practices and 5 continuing to look for areas that we can work 6 together. And we have Peter Van Deventer is in the audience, I don't know if you'd like to make 7 8 a remark if that's appropriate at this time? 9 CHAIRMAN WEISENMILLER: Please. Please 10 come on up. 11 DR. VAN DEVENTER: Thank you. My name is

12 Dr. Peter Van Deventer. Dear Commissioners, dear 13 audience, dear Commissioner Scott, on behalf of 14 the Dutch Government, the Consulate General of 15 the Netherlands, as well as the Province of North 16 Holland, I want to thank you for the opportunity 17 to speak and request your approval of the MOU in 18 front of you. And the MOU is between the 19 California Energy Commission and the Province of 20 North Holland.

The MOU offers a great opportunity for both the California Energy Commission and the province to jointly work together on energy transition, Zero Emission Vehicles, and to combat climate change; both for the Netherlands and

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1 California, this is of great concern and 2 importance. We have been working together since 2009 when we first started to connect under the 3 4 great leadership of former Commissioner Peterman 5 and today's Commissioner Scott, the CEC has an 6 excellent opportunity and position to act and 7 deliver on these very important issues. 8 The Dutch Government and the Province of 9 North Holland look forward to continue our 10 wonderful relationship. These are truly 11 important times and, as Diplomatic Liaison, I 12 strongly believe that we should and can make a 13 difference. It is therefore that I advise the 14 Board of Commissioners to approve the MOU and 15 work together to achieve tangible results. Thank 16 you. 17 CHAIRMAN WEISENMILLER: Thank you. A 18 motion? 19 COMMISSIONER SCOTT: I move approval of 20 Item 3. 21 COMMISSIONER HOCHSCHILD: Second. 22 CHAIRMAN WEISENMILLER: All those in 23 favor? 24 (Ayes.) This item passes 4-0. Thank

25 you.

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1 Let's take a question break on this item. 2 [Photo break at 10:13 a.m.] 3 DR. VAN DEVENTER: Well, thank you so 4 much and good luck, and a pleasure to work with 5 all of you. Thank you. 6 COMMISSIONER SCOTT: Please to work with 7 you, as well. [Applause.] 8 CHAIRMAN WEISENMILLER: Okay, so let's go 9 to Item 10. This is going to be Ormat Nevada. 10 Cheryl Closson, please. 11 MS. CLOSSON: Good morning Chairman and 12 Commissioners. I'm Cheryl Closson with the Renewable Energy Division. This item is for 13 14 approval of a \$631,620 Grant to Ormat Nevada from 15 the Energy Commission's Geothermal Grant and Loan 16 Program. 17 The item has been carried over from the 18 February 25th Business Meeting in response to 19 concerns raised by representatives of the Mammoth 20 Community Water District about the scope of the 21 project and location of proposed monitoring 22 wells. 23 Under this agreement, Ormat will initiate 24 elements of a groundwater monitoring program for 25 their proposed Casa Diablo IV geothermal

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1 development near Mammoth Lakes, California. As 2 noted by staff at the February 25th meeting, this 3 agreement and its scope of work do not represent 4 the complete groundwater monitoring program that will be developed for the proposed Casa Diablo 5 6 Development. It only addresses two monitoring 7 wells and associated testing that have been 8 discussed by the Long Valley Hydrologic Advisory 9 Committee, which is the Advisory Committee 10 established in 1986 by Mono County to monitor 11 geothermal development in the area. 12 The Grant Agreement Scope of Work posted 13 as background for the February 25th Business 14 Meeting referred to monitoring work being done in 15 the area by the Long Valley Hydrologic Advisory 16 Committee and the United States Geological 17 Survey, and also identified the proposed 18 monitoring well locations as the U.S. Forest 19 Service junkyard location and one at the existing 20 Geothermal Production Well 1425. 21 The scope of work also included an 22 objective to drill and complete two new 23 groundwater monitoring wells at locations suggested by the U.S.G.S. and agreed to by the 24 Bureau of Land Management, United States Forest 25

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Service, Great Basin Air Pollution Control
 District, Mammoth Community Water District, and
 Ormat Nevada.

4 While the language of the objective did 5 not name the Long Valley Hydrological Advisory 6 Committee specifically, its membership includes 7 the agencies and parties listed in the objective. 8 The language used was meant to reflect the role 9 of the U.S.G.S. in recommending the drilling 10 sites, and the Long Valley, what is known as the 11 Hack, their support for the well locations 12 identified in the Grant.

13 The U.S.G.S. provides technical support 14 for the Hack and the BLM, and is also a 15 subcontractor to the Grant Agreement for the 16 monitoring well drilling. Public and scientific 17 community involvement for the project will also 18 be available via the Long Valley Hack.

At the February 25th Business Meeting, representatives of the Water District raised concerns about the agreement's scope of work for the following main reasons: They did not agree with the approach or the well locations. They believed that at least one well location would not be appropriate and that deep geothermal

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monitoring wells are necessary for the Casa
 Diablo IV Monitoring Program and that they are
 not included in the Grant project.

4 The Water District representatives asked 5 the Commission to delay approval of the grant 6 until Ormat and the Water District could reach 7 agreement on a rigorous monitoring and mitigation 8 plan for the proposed Casa Diablo IV development. 9 In response to the Water District 10 request, the item was held over to today's 11 meeting with Commissioners indicating interest in 12 understanding the role of the agencies, if the 13 agencies recommended the well locations, and how 14 the wells and grant activities fit in with the 15 larger monitoring program to be developed for the

16 Casa Diablo IV Project.

After the February 25th meeting, staff 17 18 took the following steps to address the questions 19 from the Commissioners and the concerns raised by 20 the Water District: first, we set up a docket for 21 submittal of background documents per the Chair's 22 request that these documents be docketed; we set 23 up and participated in a conference call between 24 Commissioner Hochschild and the U.S.G.S.

25 Representatives on the methodology used for

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selecting well sites. We talked with
 representatives from the U.S.G.S., BLM, Water
 District, Great Basin Air Pollution Control
 District, Ormat, and the California Division of
 Oil, Gas and Geothermal resources. They are also
 a member of the Long Valley Hack.

7 And finally, set up and participated in a 8 conference call between Energy Commission staff, 9 U.S.G.S., BLM, Division of Oil and Gas and 10 Geothermal Resources, the Water District, and 11 Ormat. As a result of the conference call, staff 12 and the consulted parties were able to clarify 13 the following points: That BLM has sole 14 jurisdiction over any monitoring plan that will 15 be developed for the Casa Diablo IV development, 16 that this agreement is not the shallow 17 groundwater monitoring plan for the Casa Diablo 18 IV project, and it is not solely tied to the Casa 19 Diablo IV project, that the junkyard well site 20 was recommended by the U.S.G.S., and the 21 geothermal well 1425 site was recommended by the 22 BLM, that a deep monitoring well could be 23 considered for the overall Casa Diablo IV 24 Groundwater Monitoring Plan to be developed in 25 the future, that a deep geothermal well would not

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1 be or could not be added to this agreement 2 because it is not part of the competitively 3 scored application submitted by Ormat, and 4 because we do not have funding for it, that the 5 data generated by the agreement would be valuable 6 for regional monitoring, as well as for use by 7 the Casa Diablo IV Monitoring Program to be 8 developed, and that the Water District had 9 received additional information since the 10 February 25th Business Meeting and are now 11 supportive of the well locations identified for 12 the grant.

13 The last point, however, the Water 14 District noted that their main concern is that 15 the public or any interested party might think 16 that the grant does represent the entire 17 monitoring program, and they would be more 18 comfortable if we could revise grant language to 19 clarify that the grant is not the entire 20 monitoring program for the Casa Diablo IV 21 development. 22 To reflect this understandings and 23 address the Water District concern, staff has

24 revised the Grant Agreement scope of work as

25 follow: we simplified the Grant Problems

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1 Statement to indicate that additional information 2 is needed to determine if there is connection 3 between the thermal and non-thermal ground water 4 in the western part of the Long Valley Caldera, 5 we clarified that the grant does not represent 6 the overall groundwater monitoring program that 7 will be developed for the Casa Diablo IV 8 development, but that the wells and test data are 9 intended to be used for that program once it is 10 developed. We deleted reference in the Grant 11 Objectives and tasks for Goals Statement 12 regarding Agreement to the well locations by the 13 specific agencies and parties; we added language 14 to the task in case the monitoring wells come up 15 dry to allow the wells to remain open after the 16 drilling rig leaves, if appropriate, so that the 17 wells could be used for other types of 18 monitoring. And we made non-substantive 19 grammatical changes or edits to tasks regarding 20 the well location names. 21 Both the Ormat and Water District 22 representatives have reviewed these changes and 23 in it my understanding that they are in agreement 24 with them. On a program note, the geothermal 25 grant loan programs authorizing statute requires

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1 that GRDA projects approved by the Energy
2 Commission be submitted for a 30-day comment
3 period to the Department of Finance, the
4 Legislative Analyst, the Joint Legislative Budget
5 Committee when the Legislature is in session,
6 before the Energy Commission executes the
7 Agreement.

8 If this Agreement is approved today, 9 staff will send notice of the approval to the 10 Department of Finance, Leg Analyst, and Joint 11 Legislative Budget Committee, as directed by the 12 Statute, and execute the Agreement after the 13 required 30-day comment period.

14 I ask for your approval of this agreement 15 and would be happy to answer any questions you 16 might have. Charlene Wardlow with Ormat is here 17 today and is available to respond to questions. 18 Also, I believe Pat Hayes from the Water District 19 is on the phone, as well as Steve Nelson and Dale 20 Johnson from the Bureau of Land Management. 21 CHAIRMAN WEISENMILLER: That's great.

22 Why don't we start with Ormat. Please come 23 forward.

24 MS. WARDLOW: Good morning, Mr. Chairman 25 and members of the Commission. I'm Charlene

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Wardlow with Ormat. And first of all, I'd like
 to apologize for not being here two weeks ago, I
 was actually in Mammoth Lakes for a Long Valley
 Hack meeting and was surprised at the opposition
 to do additional monitoring.

6 I appreciate the opportunity to be here 7 today and would like to compliment Cheryl Closson 8 on her efforts to mitigate the concerns of the 9 Water District and move this Grant forward. She 10 has worked very diligently and I appreciate all 11 the work that she has done.

12 Ormat does request your approval of this 13 grant and we believe that any additional 14 monitoring in the Long Valley Caldera will be 15 valuable to the monitoring already done for 16 almost 30 years, in addition to what the U.S.G.S. 17 does through the Volcanoes Hazard Program. So 18 thank you for the opportunity to be here. We 19 would recommend your support of this grant and we 20 look forward to working with the Water District 21 on hopefully future solicitations to apply a 22 collaborative grant application for additional 23 monitoring that may come about as we complete the 24 monitoring and response plan that we're working 25 on with the agencies that have jurisdiction on

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1 this project. Thank you.

2 CHAIRMAN WEISENMILLER: Thank you.
3 Thanks for being here. Let's hear from the Water
4 District. Mr. Hayes on the line?

5 MR. HAYES: Good morning, it's Pat Hayes 6 here, General Manager with the Mammoth Community 7 Water District.

As you may recall, and Cheryl has pointed 8 9 out, we did speak at your February 25th meeting 10 on this matter, and raised some concerns which 11 I'm pleased to say I think our concerns have been 12 heard, and I appreciate the work that the Project 13 Manager, Cheryl Closson has done to open a 14 collaborative effort to resolve those 15 differences.

16 At this point, the Water District does 17 not object to this project, the Water District 18 sees value in having these wells at the locations 19 suggested by U.S.G.S. at Well 1425, and at the 20 Junkyard and boneyard site as part of a larger 21 monitoring and response program. In that 22 collaborative process, she mentioned the outreach 23 to the various entities and the conference call 24 that resulted, and that the need for new deep 25 geothermal monitoring wells is part of the

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1 overall monitoring end response program to be
2 developed, has been endorsed by BLM and U.S.G.S.,
3 along with further stress testing in addition to
4 what is covered in the proposed draft. So at
5 this time, the Water District feels that our
6 needs have been met and we appreciate all that
7 have been involved to get to this point.

8 CHAIRMAN WEISENMILLER: Great. Thank
9 you. Mr. Nelson from BLM?

10 MR. NELSON: Hi, this is Steve. Thanks 11 for the opportunity here. I'm glad to hear what 12 Pat has to say and also appreciate Ormat's 13 perspective on this. BLM, we're in full support 14 of the grant, and the well locations. We believe 15 strongly that they're part of the plan or the 16 requirement for a monitoring plant that we 17 required in our Record of Decision for CD4. And 18 we look forward to that larger plan and these 19 wells being part of that, so BLM is fully 20 supportive of the grant. 21 CHAIRMAN WEISENMILLER: Great. Thank 22 Anyone else either in the room or on the vou. 23 line? Then let's turn to the Commissioners. 24 COMMISSIONER HOCHSCHILD: So let me thank

25 Cheryl for your diligence and especially the

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1 stakeholders from Mammoth for raising the 2 concerns that you did. I did personally speak to 3 the U.S. Geological Survey about the validity of 4 the sites that have been selected for this, and I'm absolutely comfortable moving forward. So 5 6 unless there' other comments, I would move the 7 item. 8 COMMISSIONER MCALLISTER: I'll second. 9 CHAIRMAN WEISENMILLER: All those in 10 favor? 11 (Ayes.) This item passes 4-0. Thank 12 you, Cheryl. Thanks for your work on this. 13 MS. CLOSSON: Thank you. 14 CHAIRMAN WEISENMILLER: Let's go on to 15 Item 4, so we're back in sequence, Canyon Power 16 Plant. And this is Jonathan Fong. 17 MR. FONG: Good morning, Commissioners. 18 My name is Jonathan Fong and I'm the Compliance 19 Project Manager for the Canyon Power Plant, or 20 CPP. 21 The Energy Commission certified the 22 original 200 megawatt Canyon Power Plant facility 23 on March 17, 2010, and has been operational since 24 September 15, 2011. The power plant is located 25 in the City of Anaheim in Orange County,

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1 California.

2 Today I'm presenting a Petition to Amend 3 the Energy Commission Final Decision for the CPP. 4 The Petition would modify the Air Quality 5 Conditions of Certification to increase the 6 allowable usage of each of the four turbines, require additional emissions reductions credits, 7 amend the emission factor used to demonstrate 8 9 compliance with the PM10 emission limits, and 10 lower the allowable operation hours for the black 11 start engine. 12 Joining me today is Energy Commission staff attorney Kevin Bell from the Chief 13 14 Counsel's Office, Air Quality Technical Staff, 15 Nancy Fletcher, and Electric Transmission Staff, 16 Christopher McLean. 17 Representing the Applicant is Manny 18 Robledo, Electric Operations Manager for the City 19 of Anaheim as the Operating Agent for the Canyon 20 Power Plant, and Jerry Salamy with CH2M Hill. 21 And I believe that Vicky Lee from the 22 South Coast Air Quality Management District may 23 be calling in on the phone. 24 On September 29, 2014, the Southern 25 California Public Power Authority filed a

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1 petition with the California Energy Commission 2 requesting to modify the Air Quality Conditions 3 of Certification. These changes would allow the 4 CPP to meet qualifying criteria of the new 5 Flexible Resource Adequacy Criteria and must 6 offer obligation or FRACMO Initiative established 7 by the California Independent System Operator, or CAISO. 8

9 The FRACMO Initiative was developed by 10 CAISO to ensure that there is sufficient flexible 11 capacity in order to respond to the variability 12 and uncertainty of renewable energy resources. 13 This initiative requires qualifying base ramping 14 resources to be capable of starting two times per 15 day, and operating a minimum of six hours per 16 day.

17 In order for the CPP to qualify as a base 18 ramping resource, the Air Quality Conditions of 19 Certification need to be amended to be able to 20 operate according to these new criteria. Without 21 this amendment, CPP could at some point 22 disqualify as a flexible resource adequacy 23 capacity, resulting in the City of Anaheim 24 needing to secure power from other resources, or 25 pay CAISO a penalty for not providing resource

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1 adequacy capacity.

2 Energy Commission staff has reviewed the 3 proposed changes and concludes that the changes could result in an increase of emissions from 4 5 this facility on a monthly and annual basis. 6 Emissions Reduction Credits, ERCs, and Regional Clean Air Incentive Market Trade Credits, or 7 RECLAIM credits, would be required and have 8 9 already been surrendered to the South Coast Air 10 Quality Management District to fully mitigate the 11 emission increases of all non-attainment 12 pollutants and their precursors. 13 Energy Commission staff agrees with the

14 District's findings that the mitigation would 15 reduce the proposed air quality impacts to a less 16 than significant impact level.

17 Energy Commission staff has reviewed the 18 Petition and finds that it complies with the requirements of Title 20, Section 1769A of the 19 20 California Code of Regulations, and recommends 21 approval of the project modifications and 22 associated revisions of the Air Quality 23 Conditions of Certification based on staff's 24 findings and subject to the revised Conditions of Thank you. 25 Certification.

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CHAIRMAN WEISENMILLER: Thank you.
 Anyone in the room or on the line who wants to
 speak to this? Okay, please.

4 MR. ROBLEDO: good morning, Mr. Chairman, 5 fellow Commissioners. My name is Manny Robledo, 6 I'm the Electric Operations Manager for the City 7 of Anaheim and Canyon Power Plant. And I'd like 8 to thank the staff for their diligent efforts in 9 preparing the staff assessment, and I'd like to 10 thank the Commissioners for your consideration of 11 this matter.

12 The Canyon Power Plant does provide a 13 significant part of the City of Anaheim's 14 resource capacity and it is critical that we 15 maintain it as a capacity resource into the 16 FRACMO, as it was described here. And I'd be 17 happy to answer any questions that you may have. 18 CHAIRMAN WEISENMILLER: Thank vou. Thank 19 you very much for being here. Let's move from 20 comments to discuss the item. Commissioner 21 Douglas is in Imperial today, so I'll be 22 channeling her later on with DRECP. But in this 23 context, I would note that initially I was the 24 presiding member of the siting committee back in 25 2010, and so we looked at a number of amendments

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1 at that stage. And this falls in that category. 2 We will permit something with very specific 3 operational requirements or permit requirements, over time it's not unusual to have to revise 4 those; certainly we and the Air Districts both 5 6 look at it, and then once it's been approved for 7 us the big question is does it have a significant 8 environmental impact or not. And this Amendment, 9 the staff has indicated at least after the 10 mitigation measures it does not, and so again, I 11 would tend to characterize this as a relatively 12 straightforward cleanup at this stage, but 13 certainly any questions or comments, particularly 14 for the gentlemen from Anaheim would be great. 15 COMMISSIONER MCALLISTER: I reviewed this 16 and it looks like the mitigation measures cover 17 the impacts, so I'm comfortable with it. 18 Okay, so I'll move Item 4. 19 COMMISSIONER SCOTT: Second. 20 CHAIRMAN WEISENMILLER: All those in 21 favor? 22 (Ayes.) This items passes 4-0. Thanks. 23 Thanks again for being here. 24 Let's go to Item 5, Panoche Energy 25 Center. Dale, please.

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1 MR. RUNDQUIST: Good morning, 2 Commissioners. My name is Dale Rundquist and I 3 am the Compliance Project Manager for Panoche 4 Energy Center. With me this morning is Kevin Bell, Senior Staff Counsel, and environmental 5 6 staff from the Land Use Unit. 7 Also present in the room are representatives from Panoche Energy Center, LLC, 8 9 or the Project Owner, the Owner of Panoche Energy 10 Center. 11 On October 13, 2014, the Project Owner 12 filed a petition with the California Energy 13 Commission requesting to amend the final decision 14 for the Panoche Energy Center. The current 15 Petition to amend the Final Decision requests 16 approval for the construction and operation of an 17 enhanced waste water system. The enhanced 18 wastewater system would be built on a 3.5 acre 19 portion of the combined 9.18 acre former Panoche 20 Energy Center Construction Laydown Area in an 21 adjacent pomegranate Orchard. 22 Panoche Energy Center, a simple cycle 23 natural gas fired, 400 megawatt peaking facility, 24 was certified by the Energy Commission in its 25 decision on December 19, 2007, and began

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commercial operation on July 1, 2009. The
 facility is located in an unincorporated area
 approximately 15 miles southwest of the City of
 Mendota in Western Fresno County, California.

5 The project owner proposes to install 6 three storage tanks ranging from 250,000 gallons 7 to 500,000 gallons. The storage tanks would 8 temporarily store wastewater during operational 9 periods where the wastewater production exceeds 10 the injection well capacity, which is 11 approximately 250 gallons per minute.

12 The excess wastewater would be stored for 13 later injection when wastewater production 14 ceased.

15 The proposed changes also include 16 construction and operation of a permanent water 17 treatment system. The approximate capacity and 18 dimensions of the enhanced wastewater system's structures are as follows: a 500,000 gallon blow 19 20 down collection tank, 60-feet in diameter X 24 21 feet high; a 500,000 gallon wastewater collection 22 tank, 60 feet in diameter X 24 feet high; a 23 250,000 gallon permeate collection tank, 48 feet 24 in diameter X 20 feet in diameter, and an 25 enhanced wastewater system building 120 feet long

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1 by 70 feet wide, or 8,400 square feet, and 2 approximately 20 feet high. Construction of the 3 enhanced wastewater system is projected to begin 4 in early 2015, in the last four approximately 14 5 weeks.

Because the covered and enclosed 6 industrial building comprising 8,400 square feet 7 would be constructed, Condition of Certification 8 9 Socio 1 will apply to the Amendment. The project 10 owner shall pay the one time statutory school 11 development fee to the Mendota Unified School 12 District as required by Education Code Section 13 17620.

Energy Commission Socio and Economic staff concludes that mitigation measures for the short term construction impacts are expected to greatly reduce or eliminate the potential for significant adverse impacts on the environmental justice population within the potential affected area of the proposed site.

Staff in the technical area of land use proposes modifications to Condition of Certification Land 1. This would mitigate the additional 3.5 acres needed for construction of the wastewater system and would assure compliance

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with laws, ordinances, regulations, and
 standards, and reduce potential environmental
 impacts to a less than significant level.

The Notice of Receipt was mailed to the Post-Certification Mail List and affected public agencies, docketed, and posted on the Energy Commission's site on October 20, 2014. The staff analysis was mailed, docketed, and posted to the Energy Commission website on February 13, 2015.

10 One comment was received from the U.S. 11 Army Corp of Engineers, notifying staff that a 12 Section 404 permit would be needed if any project 13 features resulted in discharge of materials into 14 the Waters of the United States.

15 Staff appreciates input from the U.S. Corp of Engineers, however, in the original 16 17 analysis for the Panoche project, it was 18 established that there are no Waters of the United States associated with the Panoche 19 20 project. Energy Commission staff has discussed 21 this matter with the U.S. Army Corps of 22 Engineers, who are in agreement with staff 23 determination. 24 Energy Commission staff reviewed the

25 petition and finds that it complies with the

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requirements of Title 20, Section 1769A of the
 California Code of Regulations, and recommends
 approval of the project modifications and
 associated revisions to the Land Use Condition of
 Certification based upon staff's findings and
 subject to the revised Condition of
 Certification. Thank you.

8 CHAIRMAN WEISENMILLER: Thank you.
9 Applicant?

10 MR. WOLSKE: Yes, good morning. I'm Matt 11 Wolske, the project General Manager for Panoche 12 Energy Center, and I have with me my colleague, 13 Robin Shropshire, who is the Environmental Health 14 and Safety Coordinator. First of all, we 15 appreciate you taking the time to consider this 16 Petition to Amend, and would like to extend our 17 appreciation to the staff for their diligence in 18 reviewing this application, as well as their 19 understanding of the importance of how this 20 applies to Panoche Energy Center and our 21 reliability through the summer peak season. 22 CHAIRMAN WEISENMILLER: So I quess while 23 we have you here, probably a good question to ask 24 in terms of considering that we're in our fourth 25 year of drought, what are the specific potential

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issues for your plant and how you're trying to 1 2 mitigate those.

3 MR. WOLSKE: This is really a process 4 improvement for the ongoing wastewater stream 5 that the plant currently has as part of the cooling process for the individual combustion 6 7 turbines, so what we're doing is the injection 8 wells that dispose of the wastewater are limited 9 on their capacity, so the storage tanks just hold 10 that water during the summer months when the 11 plant is requested in dispatch to run longer 12 hours than what the injection well capacity can 13 handle. And it also includes an enhanced water 14 treatment process that will recover 75 percent of 15 that wastewater and recycle it in the cooling 16 tower. 17 CHAIRMAN WEISENMILLER: What's your 18 current source of cooling water? I know it's in the application, but groundwater? 19 20 MR. WOLSKE: Yes, sir. 21 CHAIRMAN WEISENMILLER: Okay. So any 22 drop-offs so far in the level of groundwater with 23 pumping in that area? 24 MR. WOLSKE: There's been observed 25 reduction since the original drilling of those

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1 wells, but those wells didn't have installed at 2 the time when they were originally drilled actual 3 monitoring capability, and we're currently 4 installing that as we work over those wells. But 5 there has been some observed drop in that level. 6 CHAIRMAN WEISENMILLER: Well, certainly 7 as we move into the summer, if there's any ways 8 we need to make adjustments, let us know. 9 COMMISSIONER MCALLISTER: How much of 10 your cooling water capacity is satisfied by -- is 11 covered by now the tank storage versus the injection wells and kind of what is your long 12 13 term view of where those injection wells are 14 actually going in terms of their capacity? 15 MR. WOLSKE: This would actually be an 16 enhancement to the injection wells. One of the 17 biggest challenges with the injection wells is 18 it's almost if you can imagine injecting water 19 into a rock, so the porosity of those injection 20 wells varies depending on the location, but the 21 wastewater does pose some particulates in that 22 injection well, and this wastewater treatment 23 process will actually remove those and extend the 24 longevity and performance of the injection wells. And at the same time, we minimize the total 25

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1 injection water that goes down.

2 COMMISSIONER MCALLISTER: So that's 3 great. I think it sounds like a good step. I 4 quess, do you have any idea of the longevity of 5 the injection wells? Or are you just going to 6 try to keep them going as long as you can? Or do 7 you have a time horizon there? 8 MR. WOLSKE: Currently they are estimated 9 to be in parallel with the lifecycle of the 10 facility. We don't really have a predetermined 11 lifecycle for the wells themselves. Right now we don't foresee that we would lose that injection 12 13 capability, we would just actually maintain its 14 current injection rate and reduce the total 15 volume that we inject. 16 COMMISSIONER MCALLISTER: Okay. Well, 17 I'll move Item 5. 18 COMMISSIONER SCOTT: Second. 19 CHAIRMAN WEISENMILLER: All those in 20 favor? 21 (Ayes.) Item 5 passes 4-0. Thank you. 22 Thanks for being here. 23 MR. WOLSKE: Thank you. 24 CHAIRMAN WEISENMILLER: Let's go on to 25 Item 6, Otay Mesa Energy Center. Dale again.

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1 MR. RUNDQUIST: Good morning again, 2 Commissioners. My name is Dale Rundquist and I 3 am the Compliance Project Manager for Otay Mesa 4 Center also. With me this morning is Kevin Bell, 5 Senior Staff Counsel and technical staff from Air 6 Quality. Also present in the room are 7 representatives from Otay Mesa Energy Center, 8 LLC, the owner of Otay Mesa Energy Center. 9 The Otay Mesa Energy Center is a combined 10 cycle natural gas-fired electricity generating 11 facility that was certified by the Energy Commission in its Decision on April 23, 2001, and 12 13 began commercial operation on October 3, 2009. 14 The facility, located in the Otay Mesa 15 area in Southwestern San Diego County, 16 California, can generate up to 689 megawatts. 17 On May 29, 2014, Otay Mesa Energy Center, 18 LLC filed a Petition with the California Energy Commission requesting to amend the Final Decision 19 20 for the Otay Mesa Energy Center Project. The 21 Petition requests modification of the Air Quality 22 Conditions of Certification in the Energy 23 Commission Decision. In addition, it requests removal of any air quality conditions pertaining 24 25 to the auxiliary boiler because the auxiliary

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1 boiler is no longer operating and no longer 2 installed.

3 The requested project changes will not 4 increase project emissions. Staff reviewed the 5 proposed project changes and determined that only 6 the technical area of air quality would be 7 affected by the proposed project changes. 8 Additionally, staff has reviewed the San Diego 9 Air Pollution Control District's revised Title 5 10 Permit and Permit to Operate issued on June 7, 11 2013, that evaluated the project changes. 12 The Air District revised the Title 5 13 Permit and Permit to Operate to incorporate minor 14 administrative changes during their routine five-15 year update. Staff agrees with the changes 16 requested by the Petitioner. In general, the 17 changes are administrative or minor in nature. 18 The recommended modifications to the Conditions 19 would remove obsolete conditions of certification 20 that are no longer applicable. These conditions 21 either pertain to project phases that have 22 already been completed such as construction and 23 commissioning, or relate to the auxiliary boiler 24 which is no longer used in facility operation. 25 Staff is also recommending approval of

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several new Conditions of Certification along
 with renumbering and/or consolidating other
 conditions necessary to maintain consistency with
 the project Title 5 Permit and Permit to Operate.

The recommended changes will assure

5

6 continued compliances with laws, ordinances, 7 regulations, and standards, and not change 8 environmental impact levels or mitigation. Air 9 Quality Table 1 of the staff assessment provides 10 in more detail the specific recommended changes 11 for each condition and the justification for each 12 change.

13 The Notice of Receipt was mailed to the 14 Post-Certification Mailing List and affected 15 public agencies, docketed, and posted on the 16 Energy Commission website on June 6, 2014. The 17 Staff Analysis was mailed, docketed, and posted 18 to the Energy Commission website on January 16, 19 2015, for a 30-day comment period. There were no 20 comments received within the 30-day comment 21 period. 22 Energy Commission staff reviewed the

23 Petition and finds that it complies with 24 requirements of Title 20, Section 1769A of the 25 California Code of Regulations, and recommends

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1 approval of the proposed modifications and 2 associated revisions of the Air Quality 3 Conditions of Certification based upon staff's 4 findings and subject to the Revised Conditions of Certification. Thank you. 5 6 CHAIRMAN WEISENMILLER: Thank you. Mr. 7 Wheatland. 8 MR. WHEATLAND: Good morning, 9 Commissioners. I'm Greg Wheatland and with me 10 this morning is Barbara McBride. We'd like to 11 thank the staff for its recommendations and we're here to answer any questions you may have. 12 13 CHAIRMAN WEISENMILLER: Thank you. 14 Again, I won't repeat the comments, but this 15 certainly looks a lot like the comments I made 16 right before. And so any questions or comments? 17 COMMISSIONER MCALLISTER: This looks like a pretty clear cleanup. Okay, so I'll move Item 18 19 6. 20 COMMISSIONER SCOTT: Second. 21 CHAIRMAN WEISENMILLER: All those in 22 favor? 23 (Ayes.) This passes 4-0. Thanks, Dale. 24 MR. RUNDQUIST: Thank you. 25 CHAIRMAN WEISENMILLER: Let's go on to

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Item 7, which is Order Instituting Rulemaking.
 Daniel Johnson, please.

3 MR. JOHNSON: Good morning, Chair, 4 Commissioners. My name is Daniel Johnson and I 5 am the Project Manager for the Nonresidential 6 Building Energy Use Disclosure Program. 7 This program went into effect January 1, The Energy Commission addressed low 8 2014. 9 initial compliance by adopting an Order 10 Instituting an Informational Proceeding on June 11 6, 2014. The Informational Proceeding Workshop was held on July 2, 2014. 12 13 The Energy Commission invited 14 representatives from major stakeholder groups 15 such as Utilities, Real Estate trade groups, and 16 Benchmarking jurisdictions to provide comments on 17 the program's implementation. Staff addressed 18 comments from the informational proceeding and 19 drafted proposed regulations. The proposed

20 regulations aim to address barriers to compliance

and enhance the overall efficacy of the program. A Pre-rulemaking Workshop was just held on February 20th to receive public comments on the proposed regulations. Today's Business Meeting item requests the adoption of an Order

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Instituting Rulemaking, which signals the Energy
 Commission's intent to enhance these regulations.
 My legal counsel, Galen Lemei and I are happy to
 answer any guestions. Thank you.

5 CHAIRMAN WEISENMILLER: Thank you.6 Commissioner McAllister.

7 COMMISSIONER MCALLISTER: Yeah, so thank you, Daniel. So we have existing regulations on 8 9 the books for AB 1103, and we've listened to 10 stakeholders who have listened to folks out there 11 who have manifested some issues with the way that 12 program is set up and run, and we're not seeing a 13 great amount of compliance, it varies quite a 14 bit. So in response to that feedback, we're 15 opening up this rulemaking again to make some 16 appropriate revisions, there's been a staff 17 workshop on that already, and a lot of engaged 18 stakeholders. And I'm hopeful that we're already 19 getting to a place that's pretty close to where 20 we'll end up, but this is opening the formal 21 rulemaking to obviously formalize the process and 22 get us to the finish line. So I think this is 23 something we're implementing in Statute in AB 24 1103, it's the first benchmarking program really 25 that we've had for nonresidential in the state,

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1 and this is our chance to improve what we're 2 doing, learn from that program, and then move on 3 with any future benchmarking efforts that we 4 might make. So I want to thank staff for all the 5 effort up to this point in going forward.

6 COMMISSIONER SCOTT: I just wanted to 7 add, as the public member here on the Commission, 8 Commissioner McAllister and you and your team, I 9 really appreciate your leadership here and the 10 way that you've been so incredibly responsive to 11 our engaged stakeholders, and working really hard 12 to get these important components raised. So I 13 just wanted to thank you for your leadership 14 there.

15 COMMISSIONER MCALLISTER: Thank you. So 16 I will move Item 7.

17 COMMISSIONER HOCHSCHILD: Second.

18 CHAIRMAN WEISENMILLER: All those in

19 favor?

20 (Ayes.) Item 7 passes 4-0. Thank you.

21 MR. JOHNSON: Thank you.

22 CHAIRMAN WEISENMILER: Let's go on to

23 Item 8, which is Energy Pro V6.4. Todd Ferris,

24 please.

25 MR. FERRIS: Good morning, Commissioners.

CALIFORNIA REPORTING, LLC 52 Longwood Drive, San Rafael, California 94901 (415) 457-4417 We placed this item on the Business Meeting
 Agenda and --

3 COMMISSIONER MCALLISTER: Could you turn 4 your mic on or make it a little closer? Thanks. 5 MR. FERRIS: Does that work? Good 6 morning, Commissioners. We placed this item on 7 the Business Meeting Agenda and worked with Energy Soft staff with hopes to recommend 8 9 approval for the Nonresidential Energy 10 Calculation Software Version Energy Pro V6.4. 11 For the last two months, staff has been 12 meeting with Energy Soft at least two times per 13 week to identify and resolve barriers with their 14 Application for Vendor Software. Unfortunately, 15 during the review process, several problems were 16 identified which we were unable to overcome in 17 order to recommend approval of the software 18 today. Some of the problems identified were not 19 entirely within Energy Soft's control. These 20 included issues related to the conversion of 21 detailed geometry test files to simplified 22 geometry versions that Energy Pro has chosen to 23 use. These include complications like 24 daylighting control credits, which cannot be 25 analyzed using the simplified geometry method,

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unmet load hours related to increased lighting
 power densities due to the removal of the
 daylighting controls.

Other issues identified were related to 4 5 how Energy Soft developed their test files. 6 Commission staff worked with Energy Soft's team 7 to identify the differences and together we have 8 identified discrepancies which include 9 construction material definitions, window and 10 skylight placement, lighting power density 11 differences, HVAC equipment descriptions, and 12 minimum outdoor air settings.

13 Both Energy Commission and Energy Soft 14 staff worked hard to identify and resolve these 15 problems, we participated in weekly Tuesday and 16 Thursday WebEx meetings, my staff and I assisted 17 Energy Soft's team in troubleshooting their 18 files, we even extended the deadline for 19 submitting the test files to try to achieve 20 recommended approval to bring before you today. 21 However, Energy Soft has been unable to finish 22 preparing the required test files and summary 23 reports necessary for staff to recommend the 24 software be approved at this time.

25 We request your approval to continue to

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1 work with Energy Soft to bring this item back
2 before you once all necessary submittals have
3 been received and reviewed. At that time, we
4 will be able to recommend approval of the
5 software.

6 With your approval, staff will continue 7 to work with Energy Soft's team to resolve the 8 outstanding issues. We will continue to meet 9 with them at least twice a week until 10 certification work is finished. Both teams' goal 11 is to have Energy Pro V6.4 listed as an agenda item for your consideration at the April 8, 2015 12 13 Business Meeting.

14 Energy Soft's Alternative Compliance Method Software, Energy Pro V6.2, conditional 15 16 approval expires on March 31, 2015. There 17 continues to be additional pathways for current 18 users to document compliance. These include 19 using the prescriptive method which is available 20 from Energy Pro, which is not affected by their 21 alternative calculation expert certification's 22 expiration, submitting permit applications to 23 enforcement agencies using the performance method 24 in Energy Pro V6.2 before it expires on March 25 31st, and preparing performance compliance

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documentation using one of the currently approved
 compliance method software, CBECC-Com or IES
 Virtual Environmental.

4 Thank you, and I'm available to answer5 any of your questions.

6 CHAIRMAN WEISENMILLER: Actually, let's
7 double-check, no one on the line or in the room?
8 Okay.

9 COMMISSIONER MCALLISTER: Okay. So 10 thanks, Todd. I guess your presentation said it 11 all, I'll give it a little bit of context. We have extended Energy Pro a couple times now and, 12 13 you know, been I think sending a consistent 14 message, certainly I have, I believe I have, that 15 we're moving on to the new paradigm, CBECC-Com is 16 the engine, and we have both it and we have an 17 accepted vendor that's using it and has been for 18 a while. And partly we've extended because 19 there's a large user base for this existing software and people were feeling pressed, but I 20 21 think enough time has gone by that that argument 22 doesn't really hold as much weight. And I think 23 to the extent that folks want to continue to use 24 this product, you know, it's really a marketplace 25 issue more than ours at this point.

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1 So I have seen you sweating on this and 2 really working hard and rolling up your sleeves, 3 and staff has really been trying to be as 4 responsive as possible, and I certainly feel like 5 we want to see this process go forward and want 6 to see more software in the marketplace that 7 gives folks more options. But at the end of the 8 day, they have to meet the minimum standards and 9 we certainly hope they will next time around. 10 And I certainly support continuing to bear down 11 and make the effort and be as responsive as possible to try to get the additional software 12 across the finish line. And we'll see about when 13 14 the agenda is coming together for the next 15 meeting and we'll hope and keep our fingers 16 crossed that it will be there, but I think we're 17 looking at a hopefully brief period of one of the 18 softwares that currently is being used being 19 offline, and that's really a function of the 20 transition. So I am in support of this item. So 21 thank you, Todd. 22 MR. FERRIS: Thank you. 23 COMMISSIONER SCOTT: I have a clarifying 24 question here. I think what I heard you say in

25 your proposal is that you want us today to

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1 approve continuing the work with Energy Soft, but 2 not necessarily approve the Energy Pro V6.4 like 3 it reads in the --

4 COMMISSIONER MCALLISTER: I think the 5 proposal is to continue this to the next meeting. 6 COMMISSIONER SCOTT: I've got it, okay. 7 MR. FERRIS: Yes, and continue our 8 regular meetings that we're having with them to 9 facilitate them moving towards approval. 10 COMMISSIONER MCALLISTER: But we're not 11 actually approving that at this meeting, we're just continuing the item, but certainly as Lead 12 13 Commissioner I am in support of that and we'll 14 support you in that effort. Okay, so I will move 15 Item 8 -- oh, I'm sorry, I will propose that we 16 continue Item 8 until the next meeting. 17 COMMISSIONER WEISENMILLER: So we'll 18 continue it. Let's go on to Item 9. National 19 Energy Management Institute Committee. And Joe 20 Loyer, please. 21 MR. LOYER: Good morning Chair and 22 Commissioners. I'm Joe Loyer, Senior Mechanical 23 Engineer in the Standards Implementation Office. 24 I'm here to present the Application for the 25 National Energy Management Institute Committee,

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or NEMIC, to be approved as a Mechanical
 Acceptance Test Technician Certification
 Provider. An Acceptance Test is a set of
 functional tests that ensures that Non Residential Mechanical Systems are working as
 designed after they are installed.

7 The Energy Commission's 2005 Standards adopted requirements that Non-Residential 8 9 Mechanical Installers perform Acceptance Testing 10 on newly installed mechanical systems to help 11 ensure that these systems performed as intended. 12 The 2013 Standards establish new requirements to 13 ensure that technicians receive training and 14 certification to perform Acceptance Testing. 15 These new standards allow organizations to apply 16 to the Energy Commission to become an ATTCP.

17 To be approved as an ATTCP, Applicants 18 much submit a complete application to the Energy 19 Commission for staff to review and validate that 20 the application is complete and contains 21 sufficient information to be approved as required 22 by the 2013 Standards.

On August 7, 2014, NEMIC submitted its
application for full approval as a Mechanical
ATTCP. Energy Commission staff, working with the

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Applicant, completed a review and validation of
 the NEMIC application on February 26, 2015, and
 found that the Application meets or exceeds the
 requirements under the 2013 Standards.

As a Condition of Approval, the Applicant will launch and maintain a website that will be available to enforcement agency personnel and the public within 90 days of the Energy Commission approval of NEMIC as an ATTCP.

10 This Condition of Approval states that by 11 June 9, 2015, NEMIC must have implemented its 12 website as described in its application, and 13 further that failure to comply with this 14 Condition of Approval provides grounds for the 15 Energy Commission to revoke all or part of its 16 approval.

17 Energy Commission staff has documented 18 these findings fully in the Staff Evaluation 19 Report, which has been made available to the 20 public.

21 Staff requests that the Energy Commission 22 confirm the Executive Director's finding, adopt 23 his recommendations, and approve NEMIC as a 24 Mechanical ATTCP, to administer the program 25 described in its application subject to the

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1 Condition of Approval in Exhibit A.

2 Technical and Legal staff are available
3 to answer any questions, as well as
4 representatives from the Applicant, I believe
5 Gary Andis is available on the WebEx.

6 CHAIRMAN WEISENMILLER: Thank you. I 7 believe we have three commenters, one in the room 8 and two on the phone. So let's start with the 9 one in the room, Mr. Emblem.

10 MR. EMBLEM: Good morning, Mr. Chair, 11 Commissioners. It's nice to be in front of you again and speaking on an issue that's near and 12 13 dear to my heart. This has been a long and 14 arduous task. Anything new and anything good 15 doesn't come without a little pain, you know, and 16 this one, I've got to give it to the Energy 17 Commission staff, they have bent over backwards, 18 they have done everything that humanly could be 19 required of making sure that this gets before you 20 today, so my hat is off to Joe and the staff that 21 have worked on this because it is a very 22 important moment, what I believe in Energy 23 Efficiency, and particularly in Non-Residential. 24 The National Energy Management Institute 25 Committee and their certification program, TAPP,

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1 is a class 1 five star program. We're very 2 blessed in the State of California that they have 3 15 training centers across the state, two 4 certification centers that work with the 5 practical application of testing, and a third 6 practical center about to come on line in 7 Fairfield, so they've done a tremendous job and 8 put a lot of capital and investment into this to 9 comply and to apply as a Nonresidential 10 Acceptance Tester.

11 The other thing I think I'd like to point 12 to, and it has a lot to do with the Governor's 13 State of the State message in the 5050 Plan, that 14 looking at a 50 percent reduction in energy use 15 in commercial buildings is a big goal. And in 16 order to obtain that goal, there's going to be a 17 lot of public and private capital put forth to 18 move the state and the buildings to this goal. 19 Acceptance testing is key -- is key -- to assure 20 that that capital is being well spent. 21 So I think that obviously I support this

21 and, again, I commend the staff on the work that 22 and, again, I commend the staff on the work that 23 they've done and, for the record, my name is Eric 24 Emblem and I'm here from the Joint Committee on 25 Energy and Environmental Policy. Thank you, Joe.

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MR.

1

MR. LOYER: Thank you.

2 MR. EMBLEM: And I'll be happy to answer 3 any questions.

4 COMMISSIONER MCALLISTER: Thanks for5 being here, Eric.

6 CHAIRMAN WEISENMILLER: Thanks. Let's go 7 on to those on the phone. Mr. Andis. Harriet, 8 should we go on to the other gentleman?

9 MR. ANDIS: Hello? Yes, this is Gary 10 Andis. I'm sorry, I can't hear anything that's 11 being said at this time.

12 CHAIRMAN WEISENMILLER: That's not good,13 but please go forward if you hear me.

14 MR. ANDIS: Oh, okay, yes. This is Gary 15 Andis with National Energy Management Institute, 16 and I would like to thank Joe for all the hard 17 work and what his and his staff has done to get 18 this to this point. There's been a lot of work 19 put forward and his staff has been a great part 20 of the role that's been done. So on behalf of 21 National Energy Management Institute, I'd like to 22 thank the staff of the CEC. Thank you.

23 CHAIRMAN WEISENMILLER: Thank you. Mr. 24 Walker?

25 MR. WALKER: Hi, this is Chris Walker on

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behalf of the California Association of Sheet
 Metal and Air-Conditioning Contractors,
 representing the 600 contractors in the State of

4 California.

5 We'd like to first of all thank staff,
6 Joe Loyer, for doing the incredible job with
7 NEMIC and we support the approval of NEMIC as an
8 ATTCP. Thank you very much.

9 CHAIRMAN WEISENMILLER: Thank you. Okay,
10 anyone else on the line or in the room? Okay, so
11 Commissioners? Commissioner McAllister.

12 COMMISSIONER MCALLISTER: So this is another, you know, there are many pieces to the 13 14 Energy Efficiency puzzle and this is one that was 15 put in place formally in the 2013 Building 16 Efficiency Standards Update for Nonresidential, 17 along with lighting, we also did mechanical and 18 these ATTCPs are producing, will produce 19 technicians that actually can do Acceptance 20 Testing of these increasingly complex systems. 21 And that verification of proper installation and 22 operation is important to make sure we're getting 23 the results that we say we're getting and that we 24 want to get.

25 So I think this is an implementation of

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1 something that's been in the works for quite a 2 while. As Mr. Emblem said, it can be complicated 3 and setting up a new system like this always is. 4 From my perspective, we do have to balance the 5 level of complexity of the system with the 6 benefits that we're likely to achieve, and I 7 think part of the discussions have been along 8 those lines, you know, we want contractors and we 9 want the marketplace to be able to get out there 10 and do projects without imposing too much 11 additional cost on those projects so they can 12 actually happen in practice. So always a 13 balancing act between many stakeholders, and I 14 think staff has done a truly admirable job at 15 doing that and achieving that, and getting us to 16 where we are. And the NEMIC application, I 17 think, we all believe that it's there and we're 18 looking forward to getting this step underway and 19 rolling out the program and making sure we get 20 enough technicians out there in the world doing 21 the work. So that's really what it's all about. 22 So I'm supportive of this, obviously. I don't 23 know if anybody else has other comments? 24 Okay, so I'll move Item 9. 25 COMMISSIONER HOCHSCHILD: Second.

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2 favor?

1

3 (Ayes.) Item 9 passes 4-0. We've
4 covered 10, so let's go on to 11, County of
5 Alameda. Shahid.

MR. CHAUDHRY: Good morning, Mr.
Chairman, Commissioners. I'm Shahid Chaudhry
with the Local Assistance and Financing Office of
the Energy Efficiency Division.

10 I'm here to request your approval for a 11 \$3 million ECAA loan at one percent to the County 12 of Alameda for installing a little over 1.7 13 megawatts of PV panels at its Santa Rita Jail 14 facilities.

15 The total cost of this project is a 16 little over \$4.3 million and the County will use 17 other sources to provide balance of the funds.

18 On completion, the project will reduce 19 about 2,859 megawatt hours of grid electricity 20 use and will save the County about \$436,920 in 21 utility costs.

In addition, the project will reduce 986 tons of carbon dioxide equivalent greenhouse gas emissions every year. Based on the loan amount, the simple payback is 6.9 years. The loan

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request fulfills the requirements of the ECAA
 Loan Program.

3 I therefore recommend and request your 4 approval of this loan. I'm available to answer 5 any questions you may have.

6 CHAIRMAN WEISENMILLER: Great, thank you.7 Commissioners, any questions or comments?

8 COMMISSIONER SCOTT: I had a chance to 9 visit the Santa Rita Jail about a year and a half 10 ago or so with Commissioner Hochschild and it 11 just was really neat to see the different things 12 that they are working on there, and the types of 13 power that they've been experimenting with, I 14 mean, they have Fuel Cells, they have different 15 types of Photovoltaics, and all kinds of 16 interesting things to really sort of help 17 demonstrate various technologies, and so that was 18 neat to see, and so I'm supportive of this 19 project.

20 COMMISSIONER MCALLISTER: And I need to 21 get out there and see it because there's all 22 sorts of cool stuff going on over there, and on 23 the energy efficiency front and increasingly on 24 the self-gen front, we're seeing a massive system 25 going in, this 1.7 megawatts here for that

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1 facility. And so there's a fairly good sized 2 cost share here and before this meeting I did a 3 few numbers, and the overall payback is still in 4 the 10-year range, so that's pretty good, even if 5 you include the whole investment amount. And it 6 reflects really how ready for prime time, you 7 know, distributed solar actually is, so it's a 8 very positive development. So I'm supportive of 9 this. 10 I'll move Item 11. 11 COMMISSIONER SCOTT: Second. 12 CHAIRMAN WEISENMILLER: All those in 13 favor? 14 (Ayes.) This also passes 4-0. Let's go 15 on to Item 12. 16 MR. CHAUDHRY: Thank you very much for 17 Item 11, Commissioners. I'm up again. 18 Once again, I'm Shahid Chaudhry and this 19 time I'm requesting your approval for a \$1.453 20 million ECAA-Ed loan at zero percent to the 21 Esparto Unified School District, for installing 22 227.7 kilowatt PV panels at three school sites, 23 as well as interior and exterior energy efficient 24 lights at various locations. 25 The total project cost is the same as the

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1 requested amount. On completion, the project 2 will reduce about 404 megawatt hours of grid 3 electricity use and will be saving the District 4 about \$91,652 in utility costs. In addition, the 5 project will reduce 139 tons of carbon dioxide 6 equivalent greenhouse gas emissions every year. 7 Based on the loan amount, the simple

payback is 15.9 years. The loan request fulfills 8 9 requirements of the ECAA-Ed loan, I therefore 10 recommend and request your approval of this loan. 11 Again, I'm available to answer any questions you 12 may have.

13 COMMISSIONER HOCHSHILD: Shahid, I was 14 just interested, why the difference in payback 15 between the two projects? Does it have to do with the difference in retail electric rates that 16 17 are being offset?

18 MR. CHAUDHRY: No, Commissioner, first of 19 all the Alameda County Loan is 1.7 megawatts and 20 that's part of regional renewable procurement 21 initiated and they've got a very good deal which 22 is roughly equivalent to \$2,500 per kilowatt. 23 On the Esparto side, the total requested 24 amount includes PV panels, as well as net 25 efficient lights, so when we're excluding the

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1 energy efficiency cost of the project, the 2 renewable portion of the project runs about 3 \$5,850.00 per kilowatt. Now this is at three 4 different locations, so this is much smaller size 5 of the project, so that's the main reason that 6 the cost of this is higher as compared to Alameda 7 County cost. So consequently, the payback period 8 is higher as compared to Alameda County costs.

9 COMMISSIONER HOCHSCHILD: Okay, that's an 10 excellent point. This goes to a subject we've 11 discussed in the past, which is we focus a lot on 12 technology and innovation, but innovation is 13 important at every stage and what you just 14 highlighted Alameda County is doing is really 15 procurement renovation, right, where they've got, 16 I believe, if I'm remembering right, we talked 17 about this, Commissioner Scott, something like 20 18 different cities that we're doing procurement and renewables at the same time, and they've got 15 19 20 percent reduction in cost. So from what you're 21 saying, part of the reason for the difference. 22 MR. CHAUDHRY: That's right. 23 COMMISSIONER HOCHSCHILD: Okay, well, 24 thanks for highlighting that. And I'm happy to 25 support this project.

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1 COMMISSIONER MCALLISTER: Great. What
2 are the terms of this particular loan? Is this a
3 Zero percent?

4 MR. CHAUDHRY: ECAA-Ed is zero percent 5 for Esparto Unified School District and regular 6 ECAA to the County of Alameda is one percent. 7 COMMISSIONER MCALLISTER: One percent, I want to just take the opportunity to 8 yeah. 9 congratulate Marcia who is sitting back there, 10 and her team, because the same team manages many 11 different loan programs and the Legislature and 12 the Budget process ends up dedicating funds to 13 some very worthwhile things, but that have to be 14 accounted for separately and often have different 15 terms, and so managing the throughput and then 16 the repayments, and just all the contracts and 17 the grants and loans, it's guite a phenomenal 18 task, and we add Prop. 39 in and the same team, 19 you know, the broad team is doing that, as well, 20 which is a grants to schools across the state. 21 So thousands literally of entities we're dealing 22 with and I think our team does a really admirable 23 job, so thank you for that. 24 COMMISSIONER HOCHSCHILD: Well said. Ι

25 would move the item.

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1 COMMISSIONER MCALLISTER: I'll second. 2 CHAIRMAN WEISENMILLER: All those in 3 favor? 4 (Ayes.) This passes 4-0. Thank you. 5 MR. CHAUDHRY: Thank you. Thanks, 6 Commissioners. 7 CHAIRMAN WEISENMILLER: Let's go on to 8 Item 13, California Pollution Control Financing 9 Authority. Larry, please. 10 MR. RILLERA: Good morning, Commissioners 11 and Chair. I'm Larry Rillera with the Fuels and 12 Transportation Division. 13 Staff is requesting approval of an 14 Interagency Agreement with the California 15 Pollution Control Financing Authority, or CPCFA, 16 for \$2 million from the Alternative and Renewable 17 Fuel and Vehicle Technology Program, or ARFVTP. 18 The \$2 million will fund the Electric 19 Vehicle Charging Station Pilot Financing Program 20 to be administered by CPCFA under their existing 21 California Capital Access Program. This 22 agreement will allow CPCFA to implement a Loan 23 Loss Reserve Program, which is the first 24 alternative financing program implemented under 25 the ARFVTP. This program is designed to expand

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1 the availability of EV Charging Infrastructure 2 funds to eligible businesses and increase the 3 leverage of ARFVTP funds. The purpose of the 4 program is to incentivize qualified lenders to 5 finance the acquisition and installation of 6 Electric Vehicle Chargers by small businesses in 7 California.

8 Under the program, eligible borrowers or 9 businesses apply for a loan through lenders or 10 banks that are certified by CPCFA. The lenders 11 or banks conduct the loan underwriting, set the 12 loan terms and conditions, and provide loan 13 packaging and servicing.

14 Important components to the program 15 include eligibility which is limited to 16 businesses with one thousand employees or less, 17 ARFVTP funds are contributed to a loan loss 18 reserve, a type of credit enhancement that will 19 assist borrowers if needed. Installations in 20 disadvantaged communities and multi-unit 21 dwellings are further incentivized through 22 increased contributions to the loan loss reserve. 23 Additionally, rebates of 50 percent of the contribution are provided to borrowers with a 24 25 good track record of loan repayments, such as no

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1 more than one 30-day late payment.

2 The specific Interagency Agreement 3 contains key tasks and deliverables such as the 4 Energy Commission will advance to CPCFA the full 5 \$2 million to implement the program. CPCFA will 6 certify lenders who are eligible to participate 7 in the program and ensure that claims are 8 processed and paid. CPCFA will provide monthly and quarterly reports to inform staff on program 9 10 efforts and the issues that may need to be 11 addressed. CPCFA will also develop formal 12 program regulations through the Office of 13 Administrative Law. Staff anticipates that this 14 program can be implemented within 45 to 60 days. 15 Staff from CPCFA and the Energy 16 Commission conducted a staff workshop on November 7th of last year to introduce this financing 17 18 concept to the public. Public comments were 19 received at the workshop and the month following 20 the workshop, as well. Valuable feedback was 21 received from lenders, electric vehicle supply 22 equipment providers and installers, other 23 industry participants, and borrowers, which have 24 been incorporated into this pilot program. 25 CPCFA has considerable experience in

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1 administering loan loss reserve programs for the 2 state, including the California Air Resources 3 Board's Truck Loan Assistance Program, and 4 rolling over \$250 million in loans to assist 5 small business owners with heavy duty diesel 6 truck emissions so the businesses can meet air 7 quality regulations.

8 It is the intention of both of our 9 agencies to revisit program implementation during 10 the pilot phase using program data and results. 11 The process will of course require stakeholder 12 engagement so we can better understand the market 13 and other issues that will lead to a sustainable 14 financing program.

I would also like to recognize Renee Webster-Hawkins, the Executive Director of CPCFA to my left, and Jason Bradley, the Program Manager of CPCFA, who are also here. With that, staff would seek your approval for this program. Thank you.

CHAIRMAN WEISENMILLER: Thank you.
Renee, do you want to say a few words?
MS. WEBSTER-HAWKINS: Good morning,
Chairman, Commissioners. We're very happy to be
here today. We've been working over the last

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1 year very closely with your staff and with the 2 quidance of Commissioner Scott, and we're very 3 excited about the possibility of expanding our 4 program, our loan loss reserve program, which 5 Larry mentioned we've been running since 1994, 6 and more recently since 2010 we've been 7 administering a major program on behalf of ARB, 8 and through that program we've been able to 9 enable small fleet owner operators to get into 10 over 5,000 cleaner burning heavy duty diesel 11 trucks, mostly new, some retrofits. It's been a 12 very successful program and our niche lenders who 13 are willing to lend in that portfolio find our 14 program very beneficial.

15 That's what we like about our program; what we offer to lenders is some comfort. As 16 17 Larry mentioned, they use their existing 18 underwriting criteria and risk assessment 19 policies when making loans, but still there are 20 times, especially with projects or business loans 21 that involve newer technologies like this 22 Where the lenders aren't comfortable, program. 23 they don't have the track record and the 24 experience to know whether or not the revenues 25 that the small business might realize as a result

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1 of the loan that they're supporting will cover 2 the debt, quite frankly. And so we've had 3 experience in tailoring programs for lenders 4 where some aspect of their risk assessment policy 5 isn't quite clear from the get go.

6 And so in this case precisely where the 7 revenue from the charging stations may certainly 8 not cover the debt that a small business might 9 take on as a result of the loan to install these 10 stations, this will help the lenders have the 11 comfort they need and we make the contributions 12 into a fund that the lender holds, and then in 13 the event of a default, then the lender can make 14 a claim against that pooled insurance fund.

15 At the same time, we're very clear that 16 our program is not designed to incentivize 17 lenders to make bad loans, and for that reason, 18 as Larry described, we have included an incentive 19 for the Borrower, as well, to stay good on their 20 payments. And for those Borrowers that do in 21 fact stay good on their payments through the four 22 years, the first four years of the supported 23 loan, they will receive direct cash rebate up to 24 50 percent of the total contribution for that 25 loan.

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1 So we're looking very forward to 2 launching this. As Larry mentioned, our Board is 3 going to be hearing this very same item, the 4 Interagency Agreement, next Tuesday, and also we 5 will be presenting the package of emergency 6 regulations to implement the program, and 7 assuming OAL approves that package, the Regulations will be ready by the end of the 8 9 month, the Interagency Agreement hopefully will 10 be approved by DGS around the same time, and 11 we'll be ready to go.

12 We have current lenders who are very 13 excited about the program. Next week we have 14 staff who are attending the California Bankers 15 Association Lenders Conference in Southern 16 California and we're going to be outreaching and 17 targeting new lenders into this program, as well. 18 So it's very good timing and we're looking 19 forward to this program. 20 CHAIRMAN WEISENMILLER: Great, thank you. Commissioners, any questions or comments? 21 22 COMMISSIONER SCOTT: Sure, I'd like to 23 make a few comments here. I want to say thank 24 you very much to our partners at CPCFA, Renee and

25 Jason, for working with us on this and thanks to

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1 Larry, as well, for really digging into the 2 details and helping put this together. It's 3 really exciting for me because AB 118 and 4 Assembly Bill 8 which set up the Alternative and 5 Renewable Fuel and Vehicle Technology Program 6 give the Energy Commission the ability to use other financial instruments in addition to the 7 grants. And so this is the first time that we 8 9 will have put in place another one of these 10 financial instruments, with is the Loan Loss 11 Reserve that Larry and Renee have described for 12 you.

13 I'm also really excited about it because 14 we have the ability to tailor where it heads 15 towards, and so we have increased incentives for 16 the disadvantaged communities and also for 17 multiple-unit dwellings, which are two places 18 where we're working very hard to try to crack the 19 nut and figure out how to expand the charging 20 infrastructure.

21 And we're really hoping to capture a 22 different set of folks than would typically apply 23 to us under one of our Program Opportunity Notices for grants, right, this could be a 24 25 business that just wants to put in one charger

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1 and this gives them the opportunity to do so, 2 whereas they might not apply to a broader grant 3 program where you've got to put lots more detail 4 together, you know, just to be able to do one 5 charger. So we're really hoping to expand the 6 reach of the ARFVTP program to a broader set of 7 folks who might be interested in getting this infrastructure out there. 8

9 So I just wanted to highlight a couple of 10 things about why I'm so excited that we have this 11 piece in place and I'm in strong support of this 12 item.

13 COMMISSIONER MCALLISTER: I'll 14 reciprocate your comments earlier, thanks for 15 your leadership on this and the other things 16 we've heard about today because transportation is 17 an area that's really exciting and I think 18 something that traditionally the Energy 19 Commission has maybe done a little bit less of 20 than efficiency in other areas. And your jumping 21 in and making stuff happen and being creative, I 22 think, is having a big impact. So thank you for 23 your leadership. 24 COMMISSIONER SCOTT: Thank you. So I

25 will move approval of Item 13.

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1 COMMISSIONER MCALLISTER: Second. 2 CHAIRMAN WEISENMILLER: All those in 3 favor? 4 (Ayes.) This item passes 4-0. Thank 5 you. 6 Let's go on to Item 14, Public Interest 7 Energy Research (PIER) 2014 Annual Report. 8 Laurie ten Hope, please. 9 MS. TEN HOPE: Good morning. I'm Laurie

11 Research Division, and I'm here today to ask for 12 your support for the PIER 2014 Annual Report.

ten Hope, the Deputy Director of the Energy

10

13 This report will be the last PIER report; 14 as you're quite aware, we're winding down the PIER Program, but in 2014 we were still actively 15 16 managing over 150 projects and a significant 17 volume of dollars. At the same time we were 18 winding down the PIER Program, we were very 19 pleased to be kicking off the EPIC Program, and 20 in 2014 we released eight solicitations for 21 approximately \$152 million, so it's been a pretty 22 busy year.

23 One other point to make, in the last 24 couple of years we've changed the selection 25 criteria for the PIER Program and it carries over

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1 to the EPIC Program to really emphasize funds 2 spent in California. And in 2014, close to 86 3 percent of the research funds were spent in 4 California.

5 Our research program provides a great 6 opportunity to connect researchers with ideas, 7 with investors with funding. And what I'm going 8 to profile here are a few of the projects that 9 are in the Annual Report that do just that. So 10 I'm going to start with a building energy 11 efficiency project.

12 This is a project trying to look at 13 packages of energy efficiency measures that would 14 dramatically reduce the cost of energy 15 efficiency, particularly in the retrofit market and this researcher, Bruce Wilcox, took a novel 16 17 approach. They leased four homes in Stockton of 18 various vintages from older homes built around 19 1948 to homes built with the 2008 Standards, and 20 they extensively monitored this building, but 21 they did it in a way where they first did 22 detailed baseline monitoring and monitoring of 23 the building as it was with the equipment 24 installed in the building, and then they 25 simulated occupancy through humidifiers and

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1 heaters, and they put in the retrofit packages. 2 This allowed them to compare day by day in 3 different weather climates what the baseline 4 situation was with the equipment, as installed, 5 and then compare to the equipment as they 6 retrofitted. And some of the retrofit packages 7 that they were retrofitting in these various 8 vintage homes were the standard things you would 9 expect in a retrofit. They sealing the envelope, 10 they were improving the windows, they were 11 putting ducts in conditioned space, they were putting in whole house fans and upgrading the 12 13 HVAC systems. And through this detailed, long 14 term monitoring, they were able to achieve the 15 reductions, actually exceed the reductions that 16 they were targeting in these homes from -- this 17 is really looking at net cooling from a 73 18 percent reduction in the oldest homes, and still 19 a 48 percent reduction in the newest homes. 20 A couple of the interesting findings from 21 this that were not necessarily anticipated, but 22 that ducts that were straightened, sealed, and 23 insulated within attics could have almost 24 equivalent savings to ducts in conditioned space, 25 so this provides some retrofit opportunities to

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1 achieve similar savings. And one of the other 2 insights was that mini splits are maybe not as 3 efficient as anticipated, so additional research 4 is needed in that area and we have an EPIC 5 project that will be investigating that further. 6 The chart does some calculations to say 7 if we were to carry out these retrofits within 8 the Central Valley, homes in similar climate 9 zones, that the savings could be 48 percent of 10 the air-conditioning use, which translates to 11 about 11 gigawatt hours per year. 12 The next project profiled is also an 13 efficiency project, but this time looking at the 14 wastewater sector. And so this researcher is 15 basically experimenting with different filtration 16 systems to remove more of the solids from the 17 wastewater, which then reduces the aeration 18 electrical power at the wastewater treatment 19 plant, and the savings estimates are pretty 20 significant, about 20 to 30 percent. And that 21 also, by removing more solids, you have more 22 input into the digesters, increasing the biogas 23 output, and also increase the capacity of the 24 wastewater treatment system. So this was highly 25 successful on multiple value streams, and

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1 estimated about a 25 percent energy savings and a
2 less than a 10-year payback, which for this type
3 of facility is a reasonable payback.

4 The next project profiled is a multi-year 5 project with U.C. Irvine. This was an award 6 under our RESC Program, the Renewable Energy 7 Secure Communities Project, and this sort of was 8 a precursor to Microgrids and other community-9 scale work we've done more recently to encourage 10 campuses and communities to come up with their 11 own renewable integration plans. So U.C. Irvine 12 developed the high grid modeling program which 13 allowed them to model the renewables demand 14 response and the electric transportation that 15 they already have on campus with some of the 16 additional sustainability goals that they want to 17 incorporate in their campus, and this has given 18 them a powerful roadmap for going forward.

We also wanted to profile a couple of transportation projects. So this is a project looking at recycling the recycling materials from batteries, and currently the recycling process is able to recycle some of the low value materials, but the high value materials like lithium are often destroyed in the recycling process, and so

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1 this company, Farasis, has come up with a lower 2 cost process for successfully recycling the 3 lithium, and has been successful in the lab. So 4 this has the opportunity to reduce the cost of 5 batteries and also reduce the recycling challenge 6 at facilities of disposal -- what are we going to do with all these batteries as we reach the 7 8 growth that we're anticipating and really want 9 from electric vehicles?

10 We also wanted to profile an 11 environmental project, it's a key portion of the 12 program, is to look at ways to mitigate energy 13 use, whether it's fossil energy or renewables, 14 and this project is looking at strategies to 15 better anticipate migration patterns of birds and 16 reduce the negative impact of wind facilities and 17 birds. And this is done basically through two 18 strategies, the first is through analysis of 19 weather patterns, anticipating what the migration 20 patterns will be, and also a genomic DNA 21 sequencing strategy that has really developed a 22 low cost way to collect feathers from various 23 wind sites, determine birds that have traveled through these areas, and then through the 24 25 database predict the migration patterns. This

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should be helpful both in siting wind facilities
 and in operation of wind facilities.

3 This project, several of the 4 Commissioners have visited, it's a very successful storage project and a great example of 5 6 an ARRA success. We, through the ARRA process, 7 funded multiple storage projects, this one is 8 demonstrating a grid-scale iron chromium redox 9 flow battery in the Tracy area to optimize a PV 10 system with their irrigation pump. And they are 11 meeting all their operational targets and 12 projected to be one of the lowest cost storage 13 facilities. It's a very scalable technology, 14 particularly applicable to places where you have 15 a lot of land available.

16 I just want to provide one example of the 17 small grants program. This is a project out of 18 U.C. Riverside, and this researcher was 19 interested in trying to reduce the range anxiety 20 that EV drivers might have by being able to provide information in real time on the traffic 21 22 patterns within the area, and they've 23 successfully demonstrated the system and estimate 24 energy savings of around 25 percent when taking 25 the Eco-route rather than the alternative route.

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1 It's a small grant, they only received about 2 \$100,000, so they're still at the prototype 3 looking for investors and would be happy to be 4 connected with one.

5 The next couple of slides, I want to 6 divert a little bit from the single projects that 7 were highlighted in active projects in 2014, to 8 talk a little bit about case studies, and we've 9 been doing these in the last few Annual Reports 10 to look at a portfolio of projects that have made 11 it to market and what is the commercial 12 penetration of these technologies and the 13 benefits that have been achieved.

14 So these slides are on adaptive lighting. 15 And this research started at U.C. Davis around 16 2000 to look at opportunities for additional 17 savings. We had already retrofitted a lot of 18 lighting within California. They did some 19 baseline assessments of stairwells, hallways, 20 parking garages, and found that these are 21 brightly lit most of the time, and their 22 occupancy is extremely low. Analysis also found 23 this to be the case in offices and libraries and 24 warehouses which might have significant daylight 25 and could reduce lighting during those

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1 opportunities. And dynamic control of lighting 2 often requires costly rewiring, so the next step 3 was to look at how do we address this with some 4 lower cost alternatives?

5 So one of the PIER Programs in 6 partnership with University of California was the 7 SPEED Program, which is a demonstration program 8 for multiple technologies, but in this example 9 was demonstrating various adaptive lighting 10 technology starting with just bi-level sensor 11 controls at public colleges in California. That 12 was really successful in terms of, you know, 13 we've got a technology, we've got a strategy, and 14 now we can demo it. And after a few successful 15 demos on campuses, the University widely deployed 16 adaptive lighting throughout their system, and 17 they took advantage of ARRA funding to really 18 expand the coverage of adaptive lighting.

19 Those demonstrations also provided some 20 justification for Title 24 to adopt bi-level 21 controls into the Title 24 Standards. And now 22 U.C., CSU, and the IOUs are continuing to fund 23 additional adaptive lighting projects.

24 COMMISSIONER HOCHSCHILD: Laurie, just to25 clarify, that's a retrofit that's only done at

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1 the fixture? You don't have to rewire --

MS. TEN HOPE: It can be done either way, so in the early stages bi-level could have been done hardwired or wireless, and the next slide is talking about the introduction of wireless. So this doesn't separate the two.

7 COMMISSIONER HOCHSCHILD: Okay. What is 8 the typical payback time to retrofit a building 9 with bi-level that's already existing? I know 10 for new Codes it's a different category, but --11 MS. TEN HOPE: I don't have that off 12 hand, I have an efficiency person here if she 13 wants to speak to it.

14 COMMISSIONER HOCHSCHILD: Just curious 15 because I think this is a very exciting 16 innovation --

17 MS. TEN HOPE: That's better.

18 COMMISSIONER HOCHSCHILD: Yeah.

MS. LEW: I'm Virginia Loo with the Energy Efficiency Research Office and I believe these paybacks are typically less than 10 years, and in fact with the ARRA Program, they had several of these demonstrations, especially with parking garages where you have long operating

25 hours, and you had metal halite-type lamps, and

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so you're doing both efficiency at the technology
 level and also reducing the hours. So I believe
 that these are typically less than 10 years.

4 COMMISSIONER HOCHSCHILD: Great, thank
5 you.

6 MS. TEN HOPE: So one of the outgrowths 7 of the SPEED Program working with CLTC was to 8 address the question you were just asking, is can 9 we do these controls in a wireless manner because 10 the retrofitting was expensive. So a researcher 11 at the University of California at Berkeley, Charlie Huizenga, wanted to kind of crack this 12 13 nut: can we come up with a wireless control 14 strategy, so break the difference between the 15 power system as hardwired, but the control system 16 is wireless. And so he started with a proof of 17 concept, he actually started this idea with a 18 \$75,000 small grant program, proved the proof of 19 concept, tweaked it, and then decided to step out 20 and set up a company. He founded Adura and 21 basically developed this wireless product. He 22 further refined the sensor interface and the 23 savings are very high for adaptive lighting. The 24 adaptive lighting then went back into the SPEED 25 Program and was widely deployed through that

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1 program. The next slide will show some of --2 COMMISSIONER MCALLISTER: Can I ask a 3 clarifying question, or I guess a process 4 question, really. So did that small grant go to 5 the Center for Built Environment at U.C. 6 Berkeley? Or was it separate from that? Because 7 I guess Charlie I think was there at some point, 8 right? 9 MS. TEN HOPE: Yeah, I believe it was 10 when he was still at U.C. Berkeley and so it 11 would have gone to U.C. Berkeley, I can verify 12 that, and then he later went out to found the 13 company. 14 COMMISSIONER MCALLISTER: Yeah, I mean, 15 that story I think is really important to 16 highlight, that good ideas, as Commissioner 17 Hochschild was saying earlier, you know, the 18 lifecycle of a given innovation goes through a 19 lot of stages, and it might start in a 20 university, it might start with just a small idea 21 with no real guarantees that it's going to be 22 widely adopted or cost-effective, or whatever, 23 but then you get some bright folks thinking about 24 it and figuring out a pathway. 25 MS. TEN HOPE: Exactly.

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1 COMMISSIONER MCALLISTER: And developing 2 the technology, and then seeing an opportunity 3 and going and finding private capital, 4 complementing that with some grant funding to 5 fill gaps or whatever, and move that forward. 6 It's just a really compelling story and we could 7 tell it on many of the projects you've 8 highlighted here, but that's characteristic of 9 what we're trying to do and I think it's really 10 important to highlight that. 11 MS. TEN HOPE: I was just looking at my 12 notes and he was with Center for the Built Environment when he applied for the Small Grants 13 14 Program, and then it was a couple years later. 15 COMMISSIONER MCALLISTER: So the 16 University enables a platform to do that, and you 17 can get some incremental funding, and bring the 18 CBE has broad talent in this area, it's a great 19 sort of crucible for that kind of idea, but then 20 at some point it kicks off and gets 21 commercialized, and that commercialization is 22 really key. 23 MS. TEN HOPE: And you don't know when 24 you start which one of these is going to blossom 25 into that opportunity.

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COMMISSIONER MCALLISTER: Absolutely.

1

2 MS. TEN HOPE: Vigilant is another 3 example of a University-based researcher spinning 4 out and developing a really successful company, 5 and that one is around data cooling, which we 6 have a slide at the end. So, I mean, this idea 7 is now a multi-million dollar company, I mean, 8 they've been purchased by Acuity, they're already 9 saving \$1.3 million in California, 23 million 10 kilowatt hours a year nationwide, so these aren't 11 projected savings, these are real savings. It's also synergistically launched in an entire 12 13 lighting control industry, so he has competitors 14 now, but that's a good thing, some of them worked 15 with him at the research stage and have gone out 16 to set of their own companies. 17 So going forward, we see that this is

17 so going forward, we see that this is 18 really going to exponentially grow. There's a 19 nice positive synergy between LEDs and adaptive 20 lighting, adaptive lighting is not really very 21 compatible with fluorescence, but it's very 22 compatible with LEDs, you can dim them and turn 23 them off and on, and see that as really enabling 24 each other.

25 The table here projects savings at a

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relatively conservative growth rate, and it's
 some pretty big numbers if these numbers are
 achieved by 2020, \$253 million by 2020.

4 I'm not going to go through all of these, 5 but what I want to point out is that this report 6 has an overview of the ratepayer benefits for 7 each of the projects that were funded in 2015, and so there's more detail on benefits in this 8 9 PIER report than in prior reports. We do 10 analysis to break out the projects by their 11 technology types, by the problem they're solving, 12 by the benefit categories, and the geographic 13 locations, so it provides sort of a deeper dive 14 first on the chapter holistically, and then each 15 of the projects goes through an analysis of the 16 benefits for the funded projects.

17 And for projects that had sufficient 18 detail, particularly in energy efficiency and 19 demand response, we've gone through and done an 20 estimate of the projected ratepayer benefits from 21 those projects, we make certain assumptions about 22 which technologies will make it to market and 23 make some very conservative market penetration estimates, and then calculate out the savings 24 25 from those projects.

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1 So looking forward, we'll be managing the 2 remaining PIER projects through 2015. We are 3 planning to do a benefits report to capture the 4 highlights of the program before we fully move 5 away from PIER to EPIC, you know, what did this nearly billion dollar investment buy for 6 7 California, and summarize some of the case 8 studies like adaptive lighting and some other 9 projects. And I was just going to give you a 10 really quick preview of some of the projects that 11 we would include which you've heard about in prior Annual Reports. These are a few of the 12 13 projects that have gotten to market. So we were 14 an early funder of PowerLight, actually the 15 researchers prior to PowerLight then became 16 PowerLight and purchased by Sun Power; we funded 17 their Integrated Roof Tile and the Power Guard, 18 we are receiving royalties from Sun Power and can take a little bit of credit, or they have given 19 20 us actually researchers from the State and DOE 21 credit that they were able to cross multiple 22 Valleys of Death and be as successful as they are 23 today. 24 Cooling is another project that will be

25 profiled in the Benefits Report. Vigilant, as I

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1 mentioned before, was a spinoff from the
2 University and in their technology, which is a
3 sensor and control strategy for data centers, is
4 already installed in multiple state data centers
5 and moving into private data centers, and these
6 are actual savings so far, so we would expect
7 this to grow significantly, as well.

8 One of the other projects that will be 9 profiled is AutoDR and OpenADR. As you know, 10 demand response has been important for multiple 11 reasons for reliability, for cost savings, and with renewables it's a great strategy for 12 13 balancing intermittent renewables. And the 14 standards work that we supported at the Demand 15 Response Research Center is already avoiding 260 16 megawatts of peak load; but what's more important 17 is it has developed a protocol for communication 18 that makes Demand Response scalable. And the 19 standard has been adopted nationally, so it will 20 be embraced by manufacturers.

Synchrophasors was one of the early successes with the program, sometimes described as the technological canary on the power line. It gives you some intelligence on changes in the power grid that could indicate instability

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1 problems and gives the operators a tool to 2 respond quickly. This is another great 3 partnership with Department of Energy who funded 4 some of the early synchrophasor work, and then we 5 funded additional deployment in California along 6 with modeling tools and visualization tools for 7 the Independent System Operator that they've credited with avoiding outages. So this has a 8 9 tremendous reliability benefit.

10 I think the Benefits Report will capture 11 the ratepayer savings attributed to the program. 12 I think it leaves a strong legacy of helping to 13 transform the policy landscape, providing some of 14 the technologies and tools that allow us to 15 continue to push the envelope with our clean 16 energy goals. It invests in California's 17 talented companies and researchers, and I think 18 that can't be underscored, that it's a 19 synergistic relationship that keeps and rewards 20 innovators here in California, and provide a 21 foundation for continued progress that we'll 22 build on in the EPIC Program and other programs 23 at the Commission.

24 With that, I just want to provide a 25 couple of thank you's. I want to thank the

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Project Author, Lillian Murvis, and the Project Manager, Felix Villanueva, and I also want to just give a shout out to the Benefits Team which provided a lot of the analytical underpinnings for the Appendix in the Report. And with that I am available for any guestions.

7 CHAIRMAN WEISENMILLER: Laurie, I'd like to thank you and your team for pulling this 8 9 together. I think all of us, at least some of 10 us, remember when we were going for 11 reauthorization and the basic refrain was always 12 there were no benefits. And at that point it was 13 pretty clear there were, and the question in part 14 was making a better case, and I think at this 15 point we certainly have organized the material in 16 a way which I think any fair-minded individual 17 should realize that the benefits from the program 18 far exceeded the cost or benefits to California 19 far exceeded the cost, but I mean, again, the 20 constant message for all of us is it's not good 21 enough just to do good, but you have to make sure 22 that people understand what you're doing. 23 MS. TEN HOPE: One of the things that

24 you've asked us to do, and we will, is that this 25 summer we'll be providing some forums to make

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1 sure that research results are available and 2 known more broadly, not just here in this room. 3 CHAIRMAN WEISENMILLER: Yeah, I mean, 4 that's part of it, that's part of the reality too 5 is generally we have worked with a lot of 6 researchers, but basically it's important 7 throughout the state to be getting part of the 8 message out and that may provide a spotlight, 9 too, for venture capital or other users, 10 stakeholders, to really look at some of those 11 opportunities and see how they may be able to use 12 them.

13 COMMISSIONER HOCHSCHILD: I just also 14 wanted to thank the Chair, your area of focus and 15 expertise on the R&D Program. I agree this has 16 been an incredibly fruitful program, not just for 17 the immediate benefits that we're talking about 18 in this report, but there's a second order of 19 magnitude which, I mean, if you think about 20 elsewhere in the economy, kind of what's 21 happening, you look at a company like Uber, 22 right, which is over \$40 billion market cap 23 company, okay, that's entirely predicated on 24 having the Smart Phone, right, which is a 25 California-based company, Apple, that created

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1 that. And I think there's a lot of parallels in 2 the energy space when we can create whole new 3 platforms that then become gardens for the next 4 generation of innovation and energy. I just got 5 last week one of those Home Beat Monitors that 6 uses based off the Smart Meter, you get your 10-7 second data and you get basically like the real 8 time EKG-type read-out for your house, and it can 9 tell you very specifically not only what 10 appliance is running, but what vintage of the 11 appliance it is and how much money you can save 12 if you upgrade that. But this is the kind of 13 thing we're seeing and it really wouldn't be 14 possible without this program and your incredible 15 work, Laurie, and your oversight and leadership 16 on this, Mr. Chair. So thank you, let's keep 17 going. 18 COMMISSIONER SCOTT: I'll echo the thanks 19 to the team and the strong support for the 20 program, and for continuing to bring some of 21 those lessons learned forward into EPIC and 22 continuing with EPIC. So thank you. 23 COMMISSIONER MCALLISTER: Yeah, I wanted 24 to just -- I'll pile on here and just say job 25 well done, I mean, the history here is just

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1 fantastic. And many people across the world, 2 certainly across the nation, look at our research 3 funding and benefit from it, too. I mean, our 4 focus is California and bringing benefits, but it 5 goes beyond our borders in a big way.

6 And I also want to express my 7 appreciation, not just in sort of the PIER and as we look at its legacy, but also currently with 8 9 EPIC and just the team, and the attitude, and the 10 approach that the Division uses to sort of branch 11 out and scour the earth for good ideas, and you have regular meetings with the Commissioners and 12 13 I certainly try to pump you full of ideas and 14 sort of give you the update from my perspective 15 on efficiency and other topics, and I find that, 16 lo and behold, a few months ago and then there's 17 an item in a PON, or something like that that is 18 actually getting work done and pushing the ball 19 forward on those topics, and so that real can do 20 iteration is I think not that common in an R&D 21 type of environment, and in just the flexibility 22 and the innovation and the creative thought that 23 you put into this in an ongoing way is really 24 very worthwhile and very much appreciated, and I 25 don't know if I've told you that before, but I

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1 really think that that's key, keeping our fingers 2 on the pulse of what's really going on in the 3 marketplace and trying to fill gaps, trying to 4 create knowledge that helps that marketplace 5 function. And I think you've been very 6 successful at that, so congratulations. 7 MS. TEN HOPE: I'm supported by a great 8 staff, so it takes a team. 9 CHAIRMAN WEISENMILLER: Actually a 10 village. So thanks again, thanks to you and your 11 team. And let's go on to Item 15, which is another one of your team efforts, Developing 12 13 Advanced Energy Storage Technology Solutions to 14 Lower Costs and Achieve Policy Goals. These are 15 grants. And this is going to be Alan Solomon. 16 MS. VACCARO: Chair Weisenmiller, before 17 you move forward, this is actually agendized as a 18 proposed resolution approving the annual report. 19 CHAIRMAN WEISENMILLER: Great. Thank 20 you. Thanks for reminding me. So I need a 21 motion on that. 22 COMMISSIONER MCALLISTER: I'll move Item 23 14. 24 COMMISSIONER SCOTT: Second. 25 CHAIRMAN WEISENMILLER: All those in

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1 favor?

25

2 (Ayes.) So thanks again, Laurie. And
3 thanks, Kourtney, for catching that.

Let's go on to Item 15. Alan, please.
And as I mentioned earlier, b. is being held.
MR. SOLOMON: Thank you very much and
good morning, Commissioners. My name is Alan
Solomon and I was the Solicitation Manager for
PON 13-302.

10 This solicitation was tasked with 11 developing advanced energy storage technology solutions to lower costs and achieve policy 12 13 goals. Broadly speaking, some of the goals of 14 the solicitation were to: 1) reduce the cost of 15 energy storage, 2) improve the performance of 16 energy storage systems, and 3) demonstrate cost-17 effective and sustainability business cases. 18 This solicitation has two components, the first 19 concerned a modeling initiative and the second 20 component concerned a technology initiative. In 21 total, I received 37 proposals, nine were for the 22 modeling portion, and 28 were for the technology 23 portion. The scoring teams met and, on December 24 10th, the NOPA was issued. It is being

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recommended that four agreements be awarded from

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the solicitation, one from the modeling
 initiative, and three from the technology
 portion.

4 Today I'm going to present one of the 5 agreements to you and the other three will be 6 presented at a later Business Meeting. The 7 Agreement that's going to be presented today is 8 with the Electric Power Research Institute and it 9 is for \$1 million. This agreement is with the 10 Modeling Initiative.

11 The purpose of the agreement is to 12 develop a publicly available modeling tool that 13 assesses cost and benefits and will guide energy 14 storage projects with respect to use, technology, 15 size, and location. The modeling tool will help 16 support the decision making efforts of 17 Regulators, Utilities, and the Energy Storage 18 industry as they deploy energy storage. 19 Additionally, the modeling tool will help support 20 long term distribution, transmission, and 21 generation planning. It is hoped that the 22 modeling tool will help achieve the state's 23 statutory energy goals, particularly AB 2514 and 24 the associated CPUC decisions to set procurement 25 targets of 1.325 gigawatts by the year 2020.

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1 I'm here to answer any questions that you 2 may have and ask for your approval of this 3 agreement. And I believe that Ben Kaun from EPRI 4 is on the line and he may want to add a comment. 5 CHAIRMAN WEISENMILLER: Sure. Ben, do 6 you have any comments? 7 MR. KAUN: Sure. Can you hear me? CHAIRMAN WEISENMILLER: Yes. 8 9 MR. KAUN: Hi. So I'm Ben Kaun, I'm the 10 Project Manager from EPRI on this project. I'd 11 like to thank you all for considering this project to develop a publically available 12 13 transparent validated tool for assessing the cost 14 and benefits of energy storage. Overall, you 15 know, it's a really challenging topic because 16 there are so many different technologies, 17 locations, and potential projects associated with 18 energy storage. Specifically, there's a challenge that is emerging for the California 19 20 Public Utilities Commission to evaluate the 21 procurements of the AB 2514 procurement targets 22 on a consistent basis across multiple utility 23 service areas, many different technologies, and 24 many different use cases. So we're proposing 25 that this tool be a validated and transparent

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1 tool that's also user-friendly so that the 2 different stakeholders involved in the energy 3 storage deployments, especially the utilities and 4 regulators and the energy storage industry, can 5 use this tool as a platform for clear 6 communication about where the values are for 7 energy storage in different circumstances. 8 So I just wanted to thank you for considering this project and I'm happy to answer 9 10 any questions you may have. 11 CHAIRMAN WEISENMILLER: Well, thank you. 12 Anyone else in the room or on the line on this 13 topic, otherwise we'll switch over to 14 Commissioners for questions or comments. So 15 let's switchover at this point. I was going to 16 observe, I think last time when we wrote things 17 out, I had indicated we were obviously going from 18 PIER to EPIC, there's a whole new Terms and 19 Conditions on all the contracts, and at that 20 point we did not have agreements with U.C. or 21 LBNL, we now do. And at the same time, I 22 indicated that at least for one of the other 23 potential winners, the issue was that everyone 24 going into these things agrees they can deal with 25 the Terms and Conditions, and as soon as awarded

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1 they come back with a ton of changes. And so 2 then obviously if we have 28 bidders there at 3 some point, either we move forward or move on to 4 the next one in line. But obviously our 5 contracts are not perfect, but we're trying to 6 keep people focused on what really needs to be addressed and then move forward with the deals. 7 8 So anyway, I suspect our negotiations with EPRI 9 will again be of a similar nature, but certainly 10 if you can encourage your attorneys to be less 11 creative, that's good. Anything else? Anything 12 of substance?

13 COMMISSIONER MCALLISTER: Storage is kind 14 of a new frontier for us, so I think having 15 analytical tools that enable us to optimize size 16 and cost is huge, and so a lot of outside the box 17 thinking on that, but hopefully we can make sure 18 that that box is well defined going forward and we can invest in where it makes most sense for 19 20 the system. So storage is a key part of the 21 brave new world of energy reliability and 22 distributed resources, and this seems like it 23 will be a terrific resource to help folks have 24 that conversation. So I'm excited about this 25 project.

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1	So I'll move Item 15.
2	COMMISSIONER SCOTT: Second.
3	CHAIRMAN WEISENMILLER: All those in
4	favor?
5	(Ayes.) Item 15 passes 4-0. Let's go on
6	to 16.
7	MR. SOLOMON: Thank you very much.
8	CHAIRMAN WEISENMILLER: Thanks.
9	Advancing Cleaner, Less Costly, More reliable
10	Distributed Generation to Enable Customer
11	Solutions and Zero-Net Energy Communities Grants.
12	And this is going to be Prab.
13	MR. SETHI: Good morning, Chairman and
14	Commissioners. My name is Prab Sethi and I'm the
15	Solar Station Manager for the EPIC Competitive
16	Solicitation PON-14-303, which was released
17	August 12, 2014.
18	This PON was released to fund up to \$19.5
19	million for Applied Research and Development
20	activities that will increase the technical
21	performance and value of distributed bio-power
22	and photovoltaics technologies.
23	I'm presenting four projects selected
24	under groups 1, 2, and 4, which are focused on
25	development of modular bioenergy systems for

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1 forests, urban interface areas, waste to energy, 2 bioenergy systems, and the last one is the 3 advanced distributed photovoltaic systems.

4 The rest of the projects will be brought to the Business Meeting in April and May. 5

6 The West Biofuels project will develop a 7 pilot-scale modular biomass gasification system 8 and will integrate it with a high-efficiency 9 lean-burn engine to convert forest residue into 10 renewable grid power to reduce the cost and 11 increase the benefits of forest fuel reduction 12 projects in California's high fire risk regions.

13 This proposed modular system can be 14 deployed in communities across California to 15 support fire safety management and reduce direct 16 costs of wildfires.

17 The second project is the SunFolding. Ιn 18 this project, SunFolding will install a 300 19 kilowatt pilot project that demonstrates the 20 feasibility of air-driven innovative solar 21 tracking technology. The proposed work is a 22 continuation of the technology developed by 23 SunFolding under an ARPA-E Grant. Technical 24 innovations allow this tracking technology to 25 improve performance and reduce cost by using mass

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1 manufacturing parts for the drive system, and 2 eliminating requirements for outdoor wiring by 3 connecting tubing to each actuator. This project 4 will increase the energy efficiency by 20 to 40 5 percent over fixed total system at a cost that is 6 below the cost of solar trackers today.

7 The third one, the InnoSepra project will 8 design and develop a biogas upgrader unit that 9 uses a unique temperature adsorption system to 10 precondition biogas to high purity biomethane 11 that is free of typical contaminants such as 12 Hydrogen Sulfide, Siloxanes, Carbon Dioxide, and 13 organic compounds.

14 The pilot plan will be installed at the 15 wastewater treatment plant at MillerCoors 16 facility in Irwindale and also at Waste 17 Management's landfill site in Simi Valley. 18 The last project, the Lawrence Berkeley 19 National Lab. The overall goal of this project 20 is to perform analytical research to match 21 locally available waste biomass resources in 22 California with grid, industrial, building power, 23 and waste heat needs. This modeling effort with 24 high light locations where waste biomass can be 25 used most efficiently for distributed generation

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1 by developing scenarios that identify the most 2 promising opportunities, key technical and 3 regulatory hurdles, and develop tools for 4 matching available waste biomass resources with 5 energy production opportunities.

6 I request your approval for these four 7 projects.

CHAIRMAN WEISENMILLER: Great. I believe 8 9 we have one gentleman - oh, excuse me, I think we 10 have a person on the line, Madrone on SunFolding? 11 MS. MADRONE: Hi there. Good morning, 12 Commissioners. I'm Leila Madrone. I'm the CEO and Co-Founder of SunFolding. I just want to say 13 14 we're very excited to be considered under the new 15 EPIC Program. As mentioned, at SunFolding we've 16 been working with ARPA-E developing a new type of 17 drive that has the potential to significantly 18 lower the cost of solar tracking and consequently 19 the price of solar.

We've been doing several years of lab testing and proving out the technology with ARPA-E and the EPIC funding will help us go to the next level and test our tracker at a larger scale as we transition this technology from the lab to the field. And I just want to say that this kind

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1 of funding is critical to projects like ours. 2 We're working on disrupted and not just 3 incremental changes in our solar hardware. It 4 provides a crucial bridge across the so-called 5 Valley of Death, and investment is very hard to 6 find for energy innovations like this until 7 you're at the demonstration stage, even with a 8 technology with potentially high pay off. And so 9 I just want to say on behalf of the whole 10 SunFolding team, thank you so much for 11 considering our project. 12 CHAIRMAN WEISENMILLER: Great. Thank 13 you. Obviously our partnership with ARPA-E has 14 been very valuable to both of us, and it's always 15 really great to have some of those successes 16 become opportunities for us also. So 17 Commissioners, any questions or comments? 18 COMMISSIONER SCOTT: I move approval of 19 Item 16. 20 COMMISSIONER MCALLISTER: I'll second. 21 CHAIRMAN WEISENMILLER: All those in 22 favor? 23 (Ayes.) Item 16 is approved 4-0. Let's 24 go on to Item 17, Demonstrating Bioenergy 25 Solutions that Support California's Industries,

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The Environment, and The Grid. Gina Barkalow,
 please.

3 MS. BARKALOW: Hello Commissioners. Μv 4 name is Gina Barkalow and I am the Solicitation Manager for the EPIC PON-14-305. 5 This 6 solicitation fulfills the CPUC requirement that 7 the Energy Commission provide a minimum of 20 8 percent, or \$27 million of technology 9 demonstration and deployment funds from the first 10 Investment Plan to biomass to electricity 11 projects. 12 Staff released the PON in August, 13 proposals were due in November, the NOPA was 14 released in January. This solicitation received 15 23 applications, 19 of these applications passed 16 Stage 1 screening, divided into four distinct 17 project groups as follows: Advanced Pollution 18 Control Equipment and Low Emission Generators; 19 Fuel Handling and Delivery Systems or 20 Technologies; Biochemical Conversion 21 Technologies, or Deployment Strategies; and 22 Thermo Chemical Conversion Technologies, or 23 Deployment Strategies. 24 Out of these 19 proposals, nine received passing scores. All of them are recommended for 25

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1 funding for a total awarded amount of just over 2 \$29 million. Total match funding is over \$24 3 million.

4 The projects from the solicitation 5 include a diverse range of pre-commercial 6 bioenergy technologies, or bioenergy technologies 7 not widely used in California, as well as 8 strategies to make bioenergy projects more 9 economical. They are located in Northern, 10 Central, and Southern California, and include 11 projects at landfills, wastewater treatment 12 plants, and a municipal solid waste plant. There 13 are also projects addressing strategies to reduce 14 food waste co-digestion costs, low emission 15 bioenergy generation, forestry waste bioenergy, 16 and dairy digester systems. 17 I will just be discussing two of the 18 projects recommended for funding today and the 19 other projects will be presented at future 20 Business Meetings. 21 The recommended projects for today are 22 from Group 3, which focuses on cost-effective and 23 integrated biochemical technologies and 24 strategies not widely used in California. The 25 first project is with American Biogas Electric

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1 Company, or ABEC #3 LLC, DBA Lakeview Farms Dairy 2 Biogas. And it is for a \$4 million grant to 3 install and demonstrate an innovative covered 4 lagoon digester system that will process dairy 5 manure into biogas to generate renewable 6 electricity for export to the electricity 7 distribution grid. This particular project is 8 located near 11 other dairies and will help 9 launch the state's first hub and spoke dairy 10 digester cluster by preparing the one megawatt 11 generator platform to accept two megawatts, a future capacity utilizing biogas from neighboring 12 13 dairies. This hub and spoke approach was 14 initially proposed in a case study prepared for 15 the U.S.D.A. on the economic feasibility of dairy 16 digester clusters in California. The idea is to 17 allow the dairies to benefit from the aggregation 18 of capital investment and reduce operation and 19 management cost by centrally locating the 20 generators and associated electrical equipment. 21 \$4.5 million in match funding is provided for 22 this project. 23 The second project is with ABEC #2 LLC,

24 DBA West Star North Dairy Biogas. It's a \$4 $\,$

25 million grant to install and demonstrate a

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1 double-cell covered lagoon digester and one 2 megawatt generation system. The double-cell 3 covered lagoons, one fixed and the other variable 4 volume, are designed to enable the quantity of 5 wastewater to vary by time of year, as well to 6 allow for the potential of co-digestion to 7 increase biogas output. Further, the digester 8 also has biogas storage capacity which opens up 9 the possibility of providing energy storage. The 10 project will prepare the generator platform to 11 add a second megawatt for potential IOU dispatch. In a future phase, the second megawatt may serve 12 13 as a qualified energy storage system providing 14 bioenergy to assist with the integration of 15 increasing levels of solar and wind. \$4 million 16 in match funding is provided. 17 Not only are these projects demonstrating

18 innovative technological approaches to bioenergy 19 dairy digester systems, they provide two 20 different approaches to bringing down the 21 levelize cost of electricity through the 22 implementation of carefully thought-out financial 23 strategies. These projects will help develop 24 cost-effective pathways to assist California in 25 achieving its renewable energy and greenhouse gas

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reduction goals, while also providing benefits to
 California investor-owned ratepayers consistent
 with the EPIC guiding principles.

4 Staff recommends approval of these
5 projects and I'm happy to address any questions
6 you may have. Thank you.

7 CHAIRMAN WEISENMILLER: Thank you.
8 Commissioners, any questions or comments?
9 Please.

10 MR. GARVEY: Good morning, Commissioners. 11 On behalf of Cal Bio, my name is Shawn Garvey and 12 I know Neil Black and Ross Buckingham are 13 probably on the phone. We do want to thank you 14 deeply. A number of you have had the opportunity 15 to visit Cal Bio and American Bioenergy's 16 projects at Stockdale, as well as the new Hope 17 Dairy, I believe Commissioner Hochschild and 18 Scott have been down there a little while ago 19 with staff, and we want to thank you for your 20 time and attention not only on the existing 21 facilities, but on the proposed new facilities. 22 Obviously these projects move forward for 23 a number of reasons. One of them would have to 24 be the tenacity of the two principals with 25 American Bioenergy, Neil and Ross. Their ability

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1 to create relationships with California's dairy 2 sector and dairy farmers is one reason that these 3 projects are able to move forward in the manner 4 that they are doing, and their ability to put 5 forward new models, including the hub and spoke 6 dairy model that is most relevant to Lakeview Farms, as well as a new business model that would 7 8 create a co-op of dairies, which is a business 9 model familiar in California's dairy sector, to reduce risk and to share in the benefit among 10 11 multiple dairies in the same region.

12 The ability at West Star North, of 13 course, to produce dispatchable electricity is 14 another innovation that we're all excited about. 15 I would like to just say this, and I would be 16 remiss in not doing so, the tenacity and 17 Herculean work being done by your folks in the 18 EPIC Program, and in particular by Gina, to bring 19 two projects like this that are complex and 20 complicated and sophisticated so quickly forward 21 to the Commission is deeply appreciated. It 22 would just be entirely remiss of me not to 23 comment on the amount of work being done in this building by the EPIC folks, and we're very very 24 25 grateful, Gina.

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CHAIRMAN WEISENMILLER: Great. Anyone
 else on the line or in the room? Okay, so
 Commissioners, questions or comments?

4 COMMISSIONER MCALLISTER: This looks like 5 a great project, I mean, it's funny how things 6 overlap. I mean, we're looking at grid studies 7 around the state and sort of working with the 8 utilities and other parties to figure out the 9 distribution level analytics that we need going 10 forward, and doing some pilot studies there, and 11 just on one of those I was talking yesterday with 12 staff from another division from the Supplies 13 Analysis Division about some of the work they're 14 doing down in Dairy country, and a lot of potential for a CHP down there with lots of 15 16 dairies, and obviously in Kern County, Tulare 17 County, and perhaps there's something here that 18 we can leverage and inform best practices and 19 help get that market going. So you know, keep 20 talking across divisions to figure out where 21 those synergies actually are. 22 Okay, so I will move this item.

24 CHAIRMAN WEISENMILLER: All those in

25 favor?

23

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COMMISSIONER HOCHSCHILD: Second.

1 (Ayes.) This passes 4-0. Thank you. 2 MS. BARKALOW: Thank you very much. 3 CHAIRMAN WEISENMILLER: Let's go on to 4 Item 18, Minutes. 5 COMMISSIONER SCOTT: I'll move approval 6 of the Minutes. 7 COMMISSIONER MCALLISTER: Second. 8 CHAIRMAN WEISENMILLER: All those in 9 favor? 10 (Ayes.) 4-0. Let's go on to Lead 11 Commissioner or Presiding Member Reports. 12 Commissioner Scott. 13 COMMISSIONER SCOTT: Excellent. Well, I 14 have just one thing to report on to you all since 15 we just met a couple weeks ago. And that is 16 yesterday was the in-person meeting of the Plug-17 In Vehicle Collaborative, and so I had my 18 opportunity to chair my very first Plug-In 19 Vehicle Collaborative Meeting, which was great 20 fun. It was a terrific meeting, we had welcomed 21 some new members, two were from the State, or 22 mostly from the State, California ISO, and 23 Caltrans, so it was great to have them join the 24 Plug-In Vehicle Collaborative. We also had 25 Subaru and a consulting company that joined, as

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1 well.

2 We heard some really interesting updates 3 from folks like NRG and Nissan. One of the things 4 that they reported within their charging 5 networks, in the public charging network if you 6 have a Fast Charger and a Level 2, more often 7 than not people will use the Fast Chargers. And they said in numbers four times as often to one, 8 9 and the other one cited numbers six times as 10 often to one. What was interesting, then, we had 11 a presentation in the afternoon from PlugShare 12 where they had also said the same thing about in 13 the public charging space, probably what makes 14 the most sense is DC Fast Charging, not Level 2 15 or Level 1. And as the ranges for Electric 16 Vehicles get larger, then that increasingly 17 becomes the case, that it is DC Fast Charging 18 that makes sense in the public charging space, 19 and that's an important differentiation, they're 20 not talking about in your home charging, they're 21 not talking about workplace charging, but in that 22 public charging sphere. So that was pretty 23 interesting to learn. 24 We had a terrific presentation from

25 Commissioner Peterman providing us with an update

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on what's going on at the Public Utilities
 Commission in response to the IOUs being pilot
 projects before the Public Utilities Commission.

4 We heard from some of the OEMs and they 5 talked to us about what they're doing. Ford had 6 some really interesting plans for their 7 headquarters, they're going to have a solar array 8 across their entire parking lot that then the 9 Electric Vehicle drivers will be able to just 10 plug right into the solar that will be there. 11 And they will continue to give us updates on 12 that. We got updates on the Chevy, the new Chevy 13 Volt, and the new Chevy Bolt. One of the things 14 the Chevy folks were saying is that the Volt, 15 they're calling it 2.0 because it really is 16 basically a redesigned, reengineered, basically a 17 brand new car where they've taken into account 18 all of the learnings that they had on the old 19 Volt and then put it into this car, and so this 20 has got different types of batteries and the way 21 that the batteries are working, different light 22 weighting materials that are in the car, they've 23 got a fifth seat in the car, they've redesigned 24 the dashboard, so it was pretty neat to hear kind 25 of what the OEMs --

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1 COMMISSIONER HOCHSCHILD: What's the 2 range?

3 COMMISSIONER SCOTT: That's a great 4 question, I think it's 50 miles.

5 CHAIRMAN WEISENMILLER: I thought it 6 might be, well, I guess it's the range --

7 COMMISSIONER SCOTT: So it's a rangeextended Electric Vehicle, but I think it's about 8 9 50 miles now instead of around 35, so it's a 10 little bit farther. And they have some 11 interesting data on how much people actually use 12 the all e-miles traveled and that they typically 13 go about 900 miles between actually filling up 14 with gasoline because most of the time they're 15 using the -- the people who drive in that 16 electric mode are most of the time using the 17 electric mode. So it was pretty neat to get some 18 information like that. I always learn something 19 new at those meetings and it's going to be fun to 20 be the Chair of that for the next little bit, so 21 that's what I've been up to.

22 COMMISSIONER MCALLISTER: Okay, not so 23 much time has gone by since the last meeting, so 24 just a few things, I have three things. I wanted 25 to just acknowledge Commissioner Scott on having

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1 led the IEPR through our last meeting and we had 2 our first kick-off of the Econ Demo for the 2015 3 IEPR, so now you're off the hook, so I'm feeling 4 back in -- you know, did this in 2013 and now on 5 2015. Lots of really exciting topics to talk 6 about, so that will move forward in earnest, and 7 I certainly want to encourage all the 8 stakeholders on the topics as the notices come 9 out and as we convene different items to 10 participate.

11 On the second and third of this month, we 12 actually had workshops on the 2016 Building 13 Efficiency Standards under Title 24 and staff did 14 a really great job putting that together. I 15 think we're in a really good spot to bring the 16 package through the process expeditiously and get 17 the standards through for their new application 18 at the end of 2016, January 1, 2017. Obviously then one more round until 2020, which is where 19 20 we're really trying to get to extremely low 21 energy buildings in the residential side. So 22 that's very exciting and I wanted to commend the 23 Efficiency staff in the Buildings Office. 24 So the main thing I wanted to talk about

25 was just let everybody know that the 758 Action

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Plan is out and public now, very relieved on
 that, everybody knows how much angst that has
 produced, certainly for me, a big effort, and for
 staff.

5 Certainly, just keying off of Laurie ten 6 Hope's presentation on some of the energy 7 efficiency technologies that have been developed 8 under the PIER Program, I mean, in the HVAC 9 space, real application of real technologies that 10 are producing a real savings, those are key to 11 move them out into the commercialization into the marketplace so that we can scale up. That's what 12 13 AB 758 is all about. You know, Nancy Skinner had 14 a very forward looking vision on this and we 15 really have to engage the marketplace on 16 implementation. Adaptive lighting, it's another 17 area where lighting and HVAC are two huge areas 18 of potential savings, and actually as we go 19 forward and see how the marketplace is going to 20 engage and do things in that setting of having 21 demand for energy efficiency projects that are 22 implemented by contractors, as we see how much 23 scale we actually get, knowing which technologies 24 are the ones with the best traction and the 25 highest cost-effectiveness, and the most reliable

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1 savings is going to be critical for shaping policy going forward. So I can envision five 2 3 years from now when we're a couple iterations 4 down on the 758 Action Plan, and we say, hey, you 5 know, there are lighting technologies out there 6 that everybody ought to be doing. And we're 7 hearing about, you know, given our aggressive 8 goals, and the Governor's mandates to us in terms 9 of getting it done in reality, you know, we're 10 hearing some first for, look, what can we just 11 make happen? What should everybody be doing? 12 Certainly from the Legislature and from others 13 out there in the marketplace, hey, what should we 14 just go ahead and do and find the resources to 15 do, and maybe even mandate? So we've referred to 16 some potential mandatory actions off in the 17 future, but we really haven't built those into 18 the plan right now because right now we're in the 19 phase where we're focusing on the marketplace. 20 So, let's see, very very happy to have 21 the plan out there, and I want to just make a few 22 acknowledgements, Dave Ashuckian in the back 23 there, the leader of the Efficiency Division, his 24 team has really worked hard on this, and I think

25 we all want to commend the team for getting it

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1 public and really moving on to the next phase; 2 Christine Callopy, Consuelo Martinez, the head of 3 the Existing Buildings Office and her team, Eric 4 Jensen, Abhilasha Wadhwa, Eric Jensen, Dan 5 Johnson, and David Ismailyan, and Martha Brook, a 6 newcomer to that office who is really proving -7 many of you know her already, she's just a font 8 of knowledge, really deep experience, and a real 9 workhorse on this stuff, and I want to 10 acknowledge her, as well. Getting the document 11 kind of through the last phase, I think she really rolled up her sleeves and helped that 12 13 happen. My advisor, Pat Saxton, I have to call 14 him out, he's really been the go to guy on a lot 15 of the stickiest questions that come up as to how 16 we're going to approach a given issue, a big lift 17 to help our Existing Buildings, you know, 12 18 million existing buildings in the state, trying 19 to be more efficient, and so it's going to be I 20 think a fruitful dialogue as we move forward to 21 finalizing the plan and start implementing it 22 together with our sister agency, the Public 23 Utilities Commission. The oversight of 24 implementation really is going to be a 25 partnership with the CPUC.

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1 I also want to acknowledge Jeanne Clinton 2 who is the Governor's appointee, our Governor's 3 rather Functionary actually at the PUC, and she 4 has been just a really key element in the 5 conversations across the Commissions and helping 6 loop in the Governor's Office when necessary, and 7 kind of keeping us all thinking about the right 8 things. So that sort of networking function, and 9 also her expertise on financing particularly has 10 been very helpful and I'm sure will continue to 11 be so on the implementation.

12 And finally, Executive Office, Rob and 13 Drew I think really have been sharing in the load 14 and keeping us focused on the right things as my 15 office and staff kind of push this forward. So I 16 feel like we're at a key moment to really raise 17 the right issues, some of them difficult issues, 18 there are a few things in there that we're 19 proposing that are fairly big benchmarking, 20 statewide benchmarking program to get some 21 additional resources that are targeted to local 22 governments, so that they can implement and 23 innovate over their existing building stock, but 24 their own buildings and their jurisdictions of 25 buildings, their homes and businesses. And a lot

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1 of issues that we're going to have to work 2 through on the data front, trying to get more 3 information out there so that people can make 4 better decisions. So all of these conversations 5 are going to need to happen and we're 6 interfacing. As lead on the IEPR this year, I'm 7 also trying to sort of leverage that process to give this conversation particularly the higher 8 9 profile and the more difficult issues a higher 10 profile and the gravitas really we need to 11 convene the right people at the table and have 12 those conversations in a productive way.

13 And speaking of that, there's a workshop 14 on April 7th at which we will present the Action 15 Plan and get comments. The comment period is 16 open, anybody can submit today, I encourage 17 everyone to look at the Action Plan, and engage 18 with the process going forward. We'll have a 19 series of workshops on more specific issues after 20 the April 7th workshop, as the IEPR process 21 unfolds. So anyway, that's my big announcement 22 for today's Business Meeting, but this is going 23 to be an ongoing effort and I really look forward 24 to working across the Commission, both with staff 25 and fellow Commissioners on this. I have to

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1 acknowledge Commissioner Douglas, as well, who 2 really carried the Energy Efficiency topic for a 3 couple years and has continued to be engaged in 4 some of the sort of individual issues that come 5 up, and really appreciate her perspective on 6 that, as well. So that's my report.

7 CHAIRMAN WEISENMILLER: Okay. Actually, 8 Commissioner Douglas asked me to update everyone 9 on the DRECP, so as I channel her, Jennifer was 10 nice enough to write up those and I'll pass these 11 on so I actually get it right.

12 This is a huge topic, very important to So anyway, this is Karen's note: 13 us. 14 "Yesterday, the Energy Commission, Bureau of Land 15 Management, U.S. Fish and Wildlife Service, and 16 the California Department of Fish and Wildlife 17 outlined the next steps for the Desert Renewable 18 Energy Conservation Plan, or DRECP. The State and Federal Agencies have decided to use a phased 19 20 approach to approve the three components of the 21 plan: the BLM Land Use Plan Amendment, the 22 Federal General Conservation Plan, and the State 23 Natural Community Conservation Plan. The 24 approach will start with completing the BLM 25 component that designates development focus areas

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1 in conservation on public lands. During the 151-2 day comment period that ended February 23, 2015, 3 we received nearly 12,000 comments. While the 4 comments are still being reviewed, several key 5 themes emerged prompting the decision to move 6 forward with the phased approach. The primary driver for the decision came from feedback from 7 the Counties within the planning area requesting 8 9 additional time to complete their planning work 10 under the Renewable Energy and Conservation 11 Planning Grants awarded by the Energy Commission, 12 and then to more closely coordinate with State 13 and Federal agencies to ensure better alignment 14 between County planning, renewable energy and 15 conservation objectives in the DRECP. 16 Other comments included the need to more 17 clearly outline permitting efficiencies and 18 conservation protections. We believe this phased

19 approach will result in a plan that is well

20 tailored to local needs, help California and the

21 nation meet long term climate and clean energy

22 goals, and conserve the desert's unique and

23 valuable resources. Continued engagement with

24 the Counties will help determine the best options

25 and timing for proceeding with the private land

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1 components and to better align renewable energy 2 development conservation at the local, State, and 3 Federal level. It will also allow the agencies 4 to explore opportunities in an individualized 5 County by County approach that fits within the 6 DRECP Plan."

7 She is not here today because she's at an 8 event down in Imperial Valley, which again gives 9 her an opportunity to continue those dialogues at 10 a local level. So anyway, again, a very 11 significant milestone in this multi-year effort, 12 and certainly a good approach moving forward, I 13 believe.

14 So in terms of talking about the few 15 things I was going to hit, one is last week I was 16 at an event down in San Francisco on Wednesday 17 with the Asia Society, and they had developed a 18 report, a very good report, I was going to say 19 there's English in the front and Chinese in the 20 back, that sort of summarizes the areas of 21 cooperation between China and California. And I 22 was thinking as you were doing the MOU at the 23 beginning of the day, well, the Governor actually 24 said two things, one, he said, "Well, you know, 25 California is a state of mind." And then later,

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1 saying, "Well, if you think about what we're 2 doing, we really are a nation." And I think that 3 was certainly the way the Press picked it up, 4 although obviously most of the world thinks we're 5 a subnational group. So anyway, it was a fun 6 event, and then I went from there to the Energy Imbalance Market Transitional Committee in 7 8 Portland, where the Committee had a meeting and 9 then I met with stakeholders in the Northwest and 10 met with the Association of Public Utilities in 11 the Northwest. Probably one of the more 12 significant elements while we were there was 13 Puget announced that it was indeed joining the 14 Energy Imbalance Market, which certainly, well, I 15 think it's coincidental, but certainly having a 16 meeting in the Northwest at the time of the 17 announcement was being made certainly resonated 18 pretty strongly. And obviously in the Northwest 19 there were still -- actually, thinking back you 20 know, California and the Northwest have had a 21 very strong and positive relationship since the 22 late '60s, early '70s, when the Interties were 23 built. And if you look at the benefits from both 24 regions, from the Interties, they've been 25 enormous benefits over the years. Obviously the

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Energy Crisis was as traumatic for them as for 1 2 us, although certainly some entities profited and 3 others really got swept around by the turbulence, 4 and so when you visit the Northwest as a 5 California official, you know, some of the people 6 tend to still move back, but they were -7 actually, I thought the conversations I was having, they were all pretty polite and at least, 8 9 again, trying to reframe the discussion a little 10 bit to think more of the longer term relationship 11 and what we can do going forward. So anyway, those are the things I wanted to hit. 12

13 COMMISSIONER HOCHSCHILD: Well, first of 14 all, just great to hear the milestones being hit, 15 Commissioner McAllister, and the efficiency work. 16 I just think it's also worth noting the way these 17 three energy goals that the Governor laid out 18 relate to each other because if you're really 19 successful with efficiency, it makes it much 20 easier, for example, to get to the 50 percent 21 renewables target, it's a lower bar. The really 22 only one major item to report on, which is 23 yesterday we released the New Solar Homes Market 24 Report, my gratitude to our team and to the Clean 25 Energy States Alliance, which did the study for

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1 us, we're one of the 20 member states, and so one 2 of the benefits is they do these studies at no 3 extra cost for us. And the highlight is that 27 4 percent of the homes being built in Southern 5 California are now being done with solar, and 6 there's a whole bunch of other details in there, 7 but I just met on Friday with a bunch of the 8 builders and the forecast for this year is for a 9 very robust market, so last year we built about 10 84,000 new homes, and this year they're 11 projecting 115,000. So this is up from at the 12 time Commissioner McAllister and I were just 13 getting started on creating those rules with the 14 Advisory Committee in the early days, you know, 15 there were only 35,000 homes a year built in 2009 16 and so it's a whole other order of magnitude now. 17 So that's really the biggest highlight. I'm 18 continuing to meet with a lot of innovators, 19 going to be going down to Google shortly and more 20 visits in San Diego with some of the PACE 21 Administrators and some of the environmental 22 groups down there. And that's it for me. 23 CHAIRMAN WEISENMILLER: Chief Counsel's 24 Report. 25 MS. VACCARO: Nothing to report today,

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1 thank you.

2 CHAIRMAN WEISENMILLER: Great. Executive
3 Director's Report.

4 MR. OGLESBY: Good afternoon, 5 Commissioners. I was asked to provide an update 6 at this Business Meeting that carries over and 7 builds on an issue that you will recall from the 8 last Business Meeting. That item was a Petition 9 offered by Pat Splitt for an Emergency and 10 Concurrent Standard Rulemaking to address issues 11 that he saw with the Title 24 Building

12 Regulations from 2013.

13 During the discussion of the item, a 14 number of public comments were also received, and 15 while the Commission declined the Petition, staff 16 was directed to follow-up on the issues in a 17 public forum that would be scheduled and asked me 18 to respond and report back to you progress. What 19 I can report today is progress is being made, we 20 have a public notice that is out for a public 21 meeting on April 10th, we've opened a new Docket, 22 and an eFile page to provide opportunities for 23 the public to comment and participate, both 24 electronically and in person at the public 25 meeting.

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1 We'll summarize the information that we 2 gather at this public meeting and then we will 3 provide a report to the Lead Commissioner and we 4 can talk about follow-up. As you recall from the 5 discussion at the last meeting, it looked like 6 there were opportunities to deal with some issues 7 outside of a rulemaking process and more 8 expeditiously, but that is where it stands right 9 now and we will continue to provide follow-up on 10 this item. 11 COMMISSIONER MCALLISTER: Great. Thanks 12 for the update, Rob. And I just want to fill in 13 a little bit here because, you know, the 14 discussion at the last meeting was fairly 15 animated and I want my overarching kind of 16 interest here is making sure that we are 17 listening in every way we can to the marketplace 18 to identify any issues that are legitimate ones 19 that we need to deal with, so I would really 20 encourage everyone participating in this process 21 to do a couple things, 1) keep calm and behave 22 themselves, and 2) really try to focus on the 23 substantive issues, you know, sort of general

- $24\,$ feelings of discomfort don't really hack it. If
- 25 there are issues, we can only deal with issues

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1 that are real issues and can be explained, and so 2 really encourage everybody to focus on specifics 3 and examples and practitioners need to inform 4 this discussion wherever possible because I think 5 the rubber hits the road at the application of 6 Building Code in a local jurisdiction with a 7 particular context, and if we can figure out 8 where problems legitimately exist, we absolutely 9 want to fix those. And so this is just an 10 opportunity to identify and drill in on any 11 issues like that. So, you know, there may be 12 discussion just generally about, oh, gosh, the 13 Building Code is difficult and stuff, but if 14 those don't evolve into asks or identification of 15 actual issues, then really not much can be done 16 about it, so I just want to encourage everybody 17 to engage with that productive attitude in mind 18 in this workshop and beyond. So, thanks, Rob. 19 MR. OGLESBY: I know on behalf of staff, 20 we're looking forward to a constructive process. 21 I do have one other item I want to 22 mention, mostly for the benefit of the public and 23 the Commissioners, and that is although today's meeting was relatively a short day, or certainly 24 25 not a long day, just to give you a heads up that,

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1 as we get closer to the Fiscal Year deadline, our 2 meetings will get longer as more items that are 3 in the financial cycle will ripen for your 4 consideration, so that the folks that have agenda 5 items coming up, be aware that the Business 6 Meetings will get longer between now and July 7 lst. 8 CHAIRMAN WEISENMILLER: That's good and, 9 if necessary, we can certainly add additional 10 Business Meetings as we go forward. 11 MR. OGLESBY: Indeed. 12 CHAIRMAN WEISENMILLER: Okay, Public 13 Advisor Report. 14 MS. MATHEWS: I have nothing to report. 15 CHAIRMAN WEISENMILER: Okay, public comment? This meeting is adjourned. 16 17 18 (Whereupon, at 12:47 p.m., the Business Meeting 19 was adjourned.) 20 21 22 23 24 25

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IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of April, 2015.

Laren Cutles

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