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BUSINESS MEETING  
BEFORE THE  
CALIFORNIA ENERGY COMMISSION

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

WEDNESDAY, MARCH 20, 2013  
10:00 A.M.

Reported by:  
Kent Odell

## APPEARANCES

1

2 Commissioners

3 Robert Weisenmiller, Chair  
 4 Karen Douglas  
 5 David Hochschild  
 6 Andrew McAllister

6

7 Staff

8 Rob Oglesby, Executive Director  
 9 Michael Levy, Chief Counsel

9

## Agenda Item

10	Laurie ten Hope	3
	Consuelo Sichon	4
11	Rizaldo Aldas	5
	Raquel E. Kravitz	6
12	Andrew Hom	7
	Barry McLeod	9
13	Andre Freeman	10
14	Blake Roberts	

15 Interested Parties

16	Amir Macari, Cal State Sacramento	4
17	Caroline Quinn, Bay Area Biosolids to Energy Coalition	5
18	Weldon 'Buster' Halterman, Buster Biofuels, LLC	7

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P R O C E E D I N G S

1  
2 MARCH 20, 2013

10:07 A.M.

3 CHAIRMAN WEISENMILLER: Good morning. Let's  
4 start the meeting with the Pledge of Allegiance.

5 (Pledge of Allegiance recited in unison.)

6 Good morning. And today's agenda, just to  
7 make sure people are clear, Item Number 8 is going to  
8 be held, and Item 2 I have an announcement, but we  
9 don't have any other committees, so let's start with  
10 the Consent Calendar.

11 COMMISSIONER DOUGLAS: Move the Consent  
12 Calendar.

13 COMMISSIONER MCALLISTER: I'll second.

14 CHAIRMAN WEISENMILLER: Okay. All those in  
15 favor of the Consent Calendar?

16 IN UNISON: Aye.

17 CHAIRMAN WEISENMILLER: Consent Calendar  
18 passes four to zero.

19 Okay. So on the committee assignments, I  
20 just wanted to announce the good news, or very good  
21 news from my perspective, is that we now have a lead  
22 Commissioner on renewable. David is going to pick that  
23 up, and with two footnotes.

24 I mean, first is that Andrew McAllister will  
25 stay on point on the new solar homes program, and the

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1 reason for that, it touches both areas, but a key  
2 component of that is the Energy Efficiency Guidelines,  
3 and a key component of new solar homes is working on  
4 this glide path to zero net energy through the Building  
5 Standards, and so we're trying to really make sure that  
6 it's well connected into the energy efficiency part  
7 along with being a real driver for renewable in new  
8 construction.

9           And in terms of the existing guidebook and  
10 regulations, I'm going to continue to be on point on  
11 that with some assistance from Commissioner Douglas so  
12 that we can basically get that to a final decision  
13 hopefully relatively quickly -- RPS, yeah -- and then  
14 hand that off.

15           We're going to do a similar transition  
16 process in transportation on the investment plan.  
17 Again, it's sort of far enough along that we're going  
18 to see it through to the end and then hopefully hand  
19 off transportation to a new Commissioner and move on to  
20 other things.

21           So anyway, good news, David, certainly.

22           COMMISSIONER HOCHSCHILD: Thank you for the  
23 opportunity. I'm real excited to dig into this issue  
24 and it's a very exciting time for renewable in  
25 California and look forward to working with the staff.

1 I think we have a terrific team on renewable and I'm  
2 very excited to dig into the issue, so thanks for that  
3 responsibility.

4 CHAIRMAN WEISENMILLER: Yeah, well, it's  
5 great to have you here for this.

6 Let's go on to Item Number 3, Public Interest  
7 Energy Research, PIER, 2012 Annual Report. Laurie ten  
8 Hope.

9 MS. TEN HOPE: Good morning. For the record,  
10 I'm Laurie ten Hope, I'm the Deputy Director for Energy  
11 Research and Development, and today I'm going to  
12 provide an overview of the PIER 2012 Annual Report and  
13 ask for your approval so that this report could be  
14 submitted to the Legislature by March 31st as required  
15 by statute. So I'm going to just provide highlights of  
16 the program activities in 2012, including research  
17 highlights and rate payer benefits, and the PIER legacy  
18 to date.

19 The 2012 -- the statute requires that the  
20 annual report list the new projects in the prior year  
21 along with significant accomplishments, program  
22 funding, match funding and areas for program  
23 improvement.

24 In 2012 we encumbered close to \$28 million in  
25 new projects, and that was matched by close to

1 \$20 million, almost a one-for-one in the match dollars,  
2 and these are dollars that the applicants bring to the  
3 table either on their own or with federal funding or  
4 industry partnerships, and so that increases the  
5 funding available for the projects up to close to  
6 \$48 million.

7           Our PIER investments in 2012 continued to  
8 follow the loading order, and we put the bulk of the  
9 funding first in energy efficiency and demand response.  
10 About a third of the funds to date have been in the  
11 energy efficiency area; followed by about a quarter of  
12 the funds in renewables; and then clean generation,  
13 which includes CHP and clean distributed generation;  
14 transmission and distribution to enable the  
15 infrastructure to support our electricity system; and  
16 in energy-related environmental research; and then a  
17 small sliver for electricity and natural gas  
18 transportation.

19           In 2012 there are some administrative  
20 improvements that were made to the program to increase  
21 the competitive selection and increase the funding to  
22 California based entities. We basically did this by  
23 revising the selection criteria and the solicitations  
24 that went out at the end of 2012 with explicit criteria  
25 for the percentage of funds that go to overhead versus

1 research, and an increased criteria scoring on the  
2 funds spent in California. We were also able to work  
3 with our control agencies to be able to do competitive  
4 solicitations that allowed competition between public  
5 and private entities, which really allows us to bring  
6 the best projects to bear within one solicitation.  
7 It's easier for us and it also provides some efficiency  
8 for the applicants.

9           Over the last couple of years we've really  
10 increased our outreach in terms of engaging  
11 stakeholders in the development of our research plan up  
12 front, and then engaging technology forums to share the  
13 research results, and also increase our partnerships.

14           One of the partnerships that has grown over  
15 the last couple of years is the partnership with the  
16 military, exemplified by the picture in the middle  
17 where we found that the military is a strong partner in  
18 terms of demonstrating some of the technologies that we  
19 might have developed or they have, vice versa, and  
20 technologies that are homegrown here in California, if  
21 they're picked up by the military, they have a  
22 tremendous market pull with efficiency, renewable and  
23 Smart Grid technologies.

24           And finally, I just want to mention that 2012  
25 is a transition year for PIER. As most people know,

1 the Legislature did not re-authorize the program in  
2 2011, so we are expending the remaining funds. Those  
3 were allocated in 2012 and by June 2013 the electricity  
4 funds will be encumbered in contracts and we'll manage  
5 those through the life of the project through 2015.

6 One of the benefits in addition to technology  
7 innovation is creating jobs and promoting investment in  
8 California. Just in the projects that were active in  
9 2012, we estimate 5300 Californians were gaining  
10 innovation skills and exposure working on PIER  
11 electricity projects.

12 We also did a survey of a subset of the  
13 contractors engaged in 2012, and by their estimates,  
14 they expect to increase their clean energy jobs by 9500  
15 jobs, and the research results can lead to creating  
16 whole new business lines, which is certainly good for  
17 them and good for California in terms of an economic  
18 stimulus as well as achieving our energy goals.

19 One of the things that we included in the  
20 2012 Annual Report was more of a programmatic  
21 assessment on a series of portfolios of projects, and  
22 one of them is updating the analysis we've done on the  
23 research projects in PIER that have transitioned from  
24 the lab into regulations. And so there are 14 elements  
25 of the building and appliance standards that have their

1 genesis in research projects in the PIER program.

2           One of the latest ones are two areas that are  
3 feeding into the 2013 building energy efficiency  
4 standards that -- is that me? Okay. -- they're  
5 feeding into the 2013 standards that go into effect  
6 January 1, 2014, and those include lighting controls,  
7 more sophisticated photo controls for side lighting and  
8 top lighting, sensors in all parking garages, day  
9 lighting controls required for defined day lighting  
10 zones. Much of this research came out of the CLTC  
11 Lighting Center and then demonstrated through PIER  
12 demonstration projects around the state.

13           This graph exemplifies the savings from the  
14 standards that were on the previous chart. Seventeen  
15 projects feeding into fourteen measures. The savings  
16 from standards in the early years are relatively small,  
17 but as the appliance and building stock turns over, you  
18 see the savings grow exponentially over the years. The  
19 big chunk of green in the middle is the TV standards.

20           A couple of the other areas where we did more  
21 of a portfolio assessment of projects was first in the  
22 area of enhancing energy use measurement in buildings.  
23 This is several projects that are looking at taking  
24 some of the existing infrastructure of energy  
25 management systems and through sensors, wireless

1 controls and more sophisticated software programs,  
2 being able to assess where in the building there is  
3 excess energy use or fault conditions, and then being  
4 able to adjust these without a lot of manual labor  
5 going out into the field and assessing in person.

6           This is sort of a cloud based analysis, and I  
7 think this is one area where controls and wireless  
8 communication is really going to help bring down the  
9 cost for retrocommissioning of existing buildings,  
10 which is an area where efficiency is a little bit  
11 harder to tackle in a cost effective way. The  
12 technologies are there but the cost to date have been a  
13 little bit high.

14           COMMISSIONER HOCHSCHILD: Laurie, can I just  
15 make sure I'm understanding that correctly. And these  
16 three areas represent all three of the areas of PIER  
17 funding, so is it fair to say that what you're saying  
18 is basically a total of almost half a billion dollars  
19 of rate payer savings as a consequence of PIER  
20 projects?

21           MS. TEN HOPE: Over the course of time. So  
22 this is based on what the market penetration is right  
23 now, so the market penetration for the technologies and  
24 measurement of buildings is about two percent right  
25 now. And the ranges are wide because assessing what

1 the market adoption is going to be is, you know, based  
2 on assumptions, you know, which technology is going to  
3 take off.

4 But, yes, it has the potential, given our  
5 building stock and the applicability of the technology,  
6 to be in these ranges. But this is, if you note,  
7 they're out to 2020, they're not today's savings.

8 COMMISSIONER HOCHSCHILD: Right. At the  
9 outer end of the bookend, though, it's half a billion  
10 dollars by 2020.

11 MS. TEN HOPE: Correct.

12 COMMISSIONER HOCHSCHILD: Yeah, okay.

13 MS. TEN HOPE: Automated demand response is  
14 an area where I think PIER was really at the forefront  
15 for looking at technology needs in the demand response  
16 area, starting in around 2000 and it's progressed into  
17 automated demand response and now open ADR. The  
18 savings to date from demand response auto DR is in the  
19 260 megawatt range, and the potential is really there  
20 now with open ADR to have more of a plug-and-play  
21 aspect to demand response that brings down the cost of  
22 connecting larger amounts of customers to either a  
23 utility or Cal ISO based demand response program.

24 And the last area is in the area of data  
25 center cooling efficiency. We have funded a few

1 technologies in this area. The first one was actually  
2 tested at the Franchise Tax Board, which again is using  
3 sensors and wireless communication, but in this case to  
4 assess what the cooling needs are throughout the data  
5 center and not overcool in some areas or even undercool  
6 in others, and the savings from those demonstrations  
7 were substantial and now have been moved out to several  
8 other state data centers and the UC system is picking  
9 that up, as well.

10           So now I want to sort of transition from the  
11 programmatic assessment that was done on the portfolio  
12 projects in 2012 to a couple of specific projects.

13           The first one is the cloud based data center  
14 project that I was alluding to in the last slide. One  
15 of the specific projects in 2012 was tested at 252  
16 target -- well, first it was tested and then it was  
17 deployed in over 200 Target stores. They're very happy  
18 with the performance of the system and are rolling it  
19 out quite broadly.

20           I wanted to transition to renewable, and in  
21 the area of renewables there's some interesting new  
22 projects that were funded in 2012 to better forecast  
23 the availability specifically of solar energy, and the  
24 pictures on the top are one project that's looking at  
25 solar forecasting in three different time scales,

1 looking at the short 15-minute ahead forecast, the hour  
2 ahead and the one to two day ahead, so that both the  
3 customer who's trying to better manage their, if this  
4 is their own system in terms of managing their own  
5 resources to match with their demand capabilities or  
6 their onsite storage, or more applicably to a grid  
7 operator who gets a better look ahead of what the solar  
8 availability is going to be over time.

9           So the first is more of a visual sky gaze  
10 system, what's the cloud cover, and gives you an  
11 assessment of the short-term forecast. The middle is  
12 the satellite based system to give an hour to two-hour  
13 ahead look at your solar resources. And the third is a  
14 computer model to take the inputs and better predict  
15 whether over the one to two-day time range.

16           The lower picture is a combined heat and  
17 power project that basically to reengineer  
18 transportation engines for CHP applications and taking  
19 very efficient distributed generation lowers the  
20 emissions and makes distributed generation more  
21 applicable to end use customers and able to meet the  
22 Air Board standards, which has been a challenge for  
23 distributed generation over the last few years.

24           I wanted to touch on some of the energy  
25 related environmental research. Both these examples

1 here are examples of environmental research that is  
2 facilitating broader application of our renewable  
3 resources, and the first is testing a turbine design  
4 that has promise to basically avoid some of the bird  
5 and bat collision problems that traditional turbines  
6 have had. It's more visible to them, and also with the  
7 shrouding, less likely to have collisions, which is a  
8 good thing particularly in areas like the Altamont area  
9 where avian interaction has been a bit of an issue.

10           The second -- it's a little hard to see, but  
11 that blue glove is reaching out to a baby tortoise and  
12 one of the -- there are a few environmental projects  
13 looking at the sensitive species in the desert, either  
14 desert tortoise, Mojave ground squirrel and some of the  
15 plant species. But this one in particular has a head  
16 start and a jump start program looking at whether these  
17 programs that basically protect the young tortoises  
18 have a better survival rate when they're moved and  
19 address some of the mitigation issues that some of the  
20 solar plants are facing or will face.

21           So, one, it's better environmental  
22 protection. Two, hopefully it'll be lower cost by  
23 being more successful. Three, this information is  
24 already feeding into the desert renewable energy  
25 conservation plan and being utilized by the science

1 panel in the recommendations that are coming forward in  
2 that venue.

3           This is my last program slide. In addition  
4 to the generation and efficiency areas, we have focused  
5 in partnership with researchers, the ISO and the  
6 utilities to really strengthen the infrastructure so  
7 that it's capable -- well, it's hardened for just basic  
8 reliability purposes, but also better suited to  
9 incorporate renewables and more customer generated  
10 resources.

11           So up on the top, we've been working with  
12 Department of Energy and the ISO and utilities on  
13 deploying synchrophasors throughout California.  
14 They've also been deployed throughout the WECC system,  
15 and this just gives a much better ability for the ISO  
16 to assess what the real time conditions are on the  
17 grid, and it's been likened to the canary on the power  
18 line. It gives you the ability to date stamp precisely  
19 what's happening at what point on the system so it can  
20 be diagnosed, but it also gives an early warning to  
21 voltage and frequency issues on the power grid.

22           The middle picture is demonstrating a large  
23 storage system. This is a picture of the Vaca-Dixon  
24 storage system in Vacaville with PG&E. They're going  
25 to expand the system in San Jose and it'll be the

1 largest energy storage system in California. This  
2 particular battery is especially well suited for rapid  
3 ramping, which helps with accommodating intermittent  
4 resources and reducing the amount of combustion turbine  
5 use needed, which is also going to lower emissions.

6           And the last picture is a partnership with  
7 UCSD. The University of California at San Diego has a  
8 very extensive microgrid. They've really been able to  
9 leverage funding from multiple sources, and this year  
10 we provided an additional grant to support electric  
11 vehicle integration and UCSD is at about 90 percent  
12 renewable power, supplying its own power for about  
13 90 percent of its energy use at this point.

14           I just want to close with PIER's legacy to  
15 date. We are lucky to be one of two states in the  
16 country that have had this kind of funding over the  
17 last couple of decades, and it's really coming to  
18 fruition at this point, saving rate payers money and  
19 really helping to transform our energy infrastructure  
20 and land scale to really meet the vision of the policy  
21 goals that have been set by policy makers and the  
22 Governor and the Legislature. So I think we'll be  
23 seeing the fruition of our investments over the next  
24 couple of decades as well as these technologies  
25 continue to move to the market.

1           Before I close I just want to thank two  
2 individuals who were key in preparing this report. One  
3 is Jesse Rosales, who is our project manager, and Maria  
4 Sotero, who was our editor and chief writer, and  
5 there's a lot of staff involved as well, but these two  
6 really carried the heavy lift.

7           So thank you, and if you have any questions  
8 or comments?

9           CHAIRMAN WEISENMILLER: Sure. First, Laurie,  
10 as sort of the lead Commissioner in R&D, I certainly  
11 wanted to thank you for your presentation and also  
12 thank your staff for the hard work in pulling this  
13 together. And obviously, again, it's a good  
14 opportunity to sort of highlight what PIER has  
15 accomplished over the years.

16           Certainly it's interesting your statistic on  
17 the 5,000 jobs. If you look at the environmental  
18 enterprisers had found 26,000 new clean jobs in  
19 California last year, so you've had a significant piece  
20 of at least that statistic.

21           And I think in terms of certainly the other  
22 thing to mention to people in terms of the last year  
23 was that when the Clean Energy States Alliances did  
24 their awards last year, you know, seven awards for top  
25 accomplishments in energy efficiency and renewables or

1 clean technology, basically California got two of those  
2 awards. One of those was for the synchrophasors, which  
3 again certainly really helped position us to deal with  
4 the realities of the grid now. And also the UC San  
5 Diego microgrid, which we're certainly trying to work  
6 in our partnership with the military to move out into  
7 all the bases in southern California and beyond  
8 California.

9           So again, we've gotten pretty good national  
10 recognition on that, and I think it's important that  
11 this document does a good job of presenting to the  
12 Legislature those accomplishments.

13           And again, as we go through the double effort  
14 of winding down PIER, obviously making sure that every  
15 dollar we've committed is well spent, and at the same  
16 time starting to ramp up EPIC.

17           And I would note as we talk about the  
18 highlights and certainly some of the criticism we've  
19 gotten before is that we have shifted the focus not  
20 just to good research, but basically much more  
21 California focused than certainly the original  
22 direction we had gotten. And PIER as opposed to EPIC  
23 had the advantages that we could have that sort of  
24 California focus while struggling in the other one.  
25 Also we could get royalties, which unfortunately as we

1 transition from PIER from EPIC we're not going to be  
2 able to capture the royalties on stuff. And at the  
3 same time the basic message that we're certainly trying  
4 to shift to this program this year. Certainly EPIC  
5 will be very focused on competitive processes to get  
6 the most bang for the buck for our citizens.

7 So again, certainly thank you and your staff  
8 for the hard work on this.

9 Commissioners, any other questions or  
10 comments?

11 COMMISSIONER DOUGLAS: Just a brief comment.  
12 I want to join you in thanking the staff of the PIER  
13 program for the really good work on this. I definitely  
14 am very familiar with some of the work that PIER has  
15 helped support in the areas of renewable energy siting,  
16 and I think that it's been extremely valuable, and  
17 hopefully as we gear up with EPIC will continue to be a  
18 really valuable component of helping us achieve our  
19 renewable energy goals and also better understand  
20 potential impacts on the environment, potential ways of  
21 addressing those impacts and the basic scientific  
22 information that's needed to approach this more  
23 comprehensively, such as through the Desert Renewable  
24 Energy Conservation Plan. So it's really been helpful.  
25 It's really been good work.

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1           COMMISSIONER MCALLISTER: I'll pile on here.  
2 You know, too many projects to mention of all the  
3 excellent ones that PIER has funded over the years. My  
4 own personal exposure, more it was with really energy  
5 efficiency and renewable. Very familiar with the  
6 various things that are going on in San Diego at UCSD  
7 with the solar assessment and forecasting and  
8 microgrid.

9           But I really think in broad strokes PIER has  
10 been, and the staff that is the manifestation of the  
11 projects and the management and kind of the tasks  
12 really have been skilled at keeping tabs on the edge of  
13 the envelope, you know, what's possible, what's needed,  
14 filling in the gaps and sort of pushing things in the  
15 directions that they need to go, assessing out what  
16 needs to happen and helping push things in that  
17 direction. And so I think the state has just benefited  
18 so tremendously from that it's hard to overstate.

19           And again, with all the caveats that Chair  
20 Weisenmiller mentioned, we need to do this responsibly,  
21 transparently, competitive bids, but I think everybody  
22 understands the value of research and how much of a  
23 leader California has been in this area and I really  
24 would reiterate my thanks to Laurie and all the staff  
25 on the PIER program.

1           And moving forward in EPIC, very hopeful  
2 about making that transition, continuing to ensure  
3 California's leadership in this area. So thank you and  
4 really looking forward to spreading this message in the  
5 Legislature and elsewhere.

6           COMMISSIONER HOCHSCHILD: The only other  
7 point I would add is just in a budget situation as bad  
8 as we have with the federal government in research  
9 dollars really being pressed there, I think the  
10 importance of this program and EPIC going forward is  
11 greater than ever, and as companies make decisions  
12 about -- global companies make decisions about where to  
13 invest and where to locate, I think having a statewide  
14 program that focuses on this kind of research is  
15 actually an important way to attract that investment to  
16 California.

17           So I had a chance to spend yesterday  
18 afternoon over with you touring your office and meeting  
19 your team, and it was very impressive, so keep up the  
20 good work.

21           MS. TEN HOPE: Well, on behalf of the staff I  
22 just want to thank all of you for the comments but also  
23 for your leadership to date and going forward. You  
24 know, this is only useful if it serves our policy goals  
25 and it gets out to help the people of California.

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1           And I just want to thank the researchers. I  
2 mean, the researchers are doing the work and bringing  
3 the technologies to bear, so deserve some  
4 acknowledgement there. Thank you.

5           Any additional comments or...

6           COMMISSIONER DOUGLAS: I'll move approval of  
7 Item 3.

8           COMMISSIONER MCALLISTER: Second.

9           CHAIRMAN WEISENMILLER: All those in favor?

10          IN UNISON: Aye.

11          CHAIRMAN WEISENMILLER: This item passes four  
12 to zero. Thank you Laurie, again.

13          Let's go on to Item Number 4, University  
14 Enterprises, Inc. This is an auxiliary organization to  
15 the California State University of Sacramento.  
16 Possible approval of Amendment 1 to contract 500-9-039  
17 to add 1.4 million and to extend the contract by 20  
18 months.

19          Consuelo Sichon, please.

20          MS. SICHON: Good morning, Commissioners. My  
21 name is Consuelo Sichon with the Energy Research and  
22 Development Division.

23          This amendment is for a contract that began  
24 in 2010 to establish a center for Smart Grid research  
25 at the California State University Sacramento called

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1 the California Smart Grid Center. Under the original  
2 contract, staff from the California Smart Grid Center  
3 met with the California ISO and representatives from  
4 both investor owned and publicly owned utilities to  
5 discuss the needs for Smart Grid research, from which  
6 they developed a plan identifying five research areas,  
7 which are high performance communications, advanced  
8 sensors, actionable intelligence, cyber security, and  
9 distributed generation, integration and optimization.

10 This research plan was used to develop three  
11 projects proposed for this amendment. These research  
12 projects will use the remaining funds in the original  
13 contract along with an additional \$1.4 million of  
14 proposed funding.

15 The first project is to design and test a  
16 customer premise network applicable for residential and  
17 commercial buildings that have local renewable  
18 resources and smart energy devices.

19 The second project is to identify grid cyber  
20 security issues from implementing Smart Grid  
21 technologies.

22 And the third project is to perform computer  
23 simulations of various amounts of distributed  
24 generation at different locations on the same  
25 distribution circuit to determine the effects on the

1 protection and control equipment.

2           The results of these projects will be shared  
3 with Smart Grid stakeholders and the public. Staff  
4 requests approval of this agreement, and I can answer  
5 any questions at this time.

6           CHAIRMAN WEISENMILLER: Thank you.

7           Amir, you want to say something too? Please,  
8 come up and introduce yourself.

9           MR. MACARI: Thank you very much,  
10 Commissioner Weisenmiller, and all of your  
11 Commissioners. It's been a pleasure working with staff  
12 here at the California Energy Commission. Connie  
13 Sichon, Jamie Patterson, Fernando Pena, David Chambers,  
14 Mike Gravely, Laurie ten Hope, all of them have been  
15 wonderful leaders.

16           When I first came to California, I realized  
17 that we had a long tradition, our university had a long  
18 tradition of producing the power engineers that were  
19 being hired in California. We had a record of  
20 producing over 60 percent of the power engineers that  
21 were being hired by utility companies.

22           However, things had fallen into disarray.  
23 Most universities have really given up on power  
24 engineering as a mature discipline. Nothing new was  
25 going to be invented. And suddenly comes this very

1 exciting area of Smart Grid that brings tremendous  
2 innovation to all of us in support of energy efficiency  
3 in really reducing our carbon footprint.

4           So we started working with the Energy  
5 Commission to try to see how we could leverage this  
6 tradition in our work. Most of our faculty were  
7 seniors, they were retiring, and we were losing that  
8 expertise. We had only six majors in power engineering  
9 at that time.

10           Just to tell you what this project, what this  
11 research project has done as a value added, currently  
12 over half of our electrical engineering majors are  
13 focusing on power engineering and Smart Grid, so  
14 utilities are really benefiting from the workforce  
15 development that we're encompassing, and this really  
16 comes to play by having a center and not just  
17 individual projects that are distributed throughout  
18 different universities. The benefit of having this  
19 research center has a lot of value added and we really  
20 appreciate working with all of you.

21           We're working with the Department of Energy  
22 as well. We've received funding for workforce  
23 development, and right now we're in the process of  
24 applying for another DOE grant. We're working with  
25 staff to try to get advice, and with all the utilities.

1           So Connie, thank you very much for presenting  
2 this amendment. We've been looking forward to it for  
3 over a year and it's been a long struggle, but things  
4 pay off at the end.

5           CHAIRMAN WEISENMILLER: That's very good. I  
6 was just going to note that on cyber security, which is  
7 one of the elements you're working with, at a recent  
8 conference one of the representatives of Mid American  
9 indicated that utility has a thousand attempts to hack  
10 into its system every day. Now, how much of that is  
11 some high school kid sort of playing around and how  
12 much of it is a more serious threat to security is an  
13 issue, but it gives you a sense of how pervasive that  
14 is, and if anything, you know, they're in the mode of  
15 trying to figure out would they recover from a  
16 successful cyber security attack as opposed to just  
17 assuming they can always fend it off.

18           So again, certainly keep up the good work.  
19 Encourage your students to come here after they  
20 graduate.

21           MR. MACARI: Thank you very much.

22           COMMISSIONER DOUGLAS: Yeah, I just want to  
23 say congratulations. You've definitely developed a  
24 really strong record and you're providing students  
25 opportunities to get into this field and providing a

1 really important service to the marketplace and to the  
2 utilities and to the state, so it's really good to see.  
3 So thanks.

4           COMMISSIONER MCALLISTER: Yeah, I'll just  
5 indicate, I think this is a resource that's very, very  
6 much needed in the state (inaudible). It's going to  
7 provide a good foundation, really a great foundation  
8 for lots of questions that maybe we don't even know  
9 that are questions yet, so just the ability to  
10 understand the issue deeply from various sides and from  
11 a technical perspective and protocols and all that kind  
12 of stuff, I think is going to move us in directions  
13 that provide value up and down the supply and demand  
14 chain in our energy consumption world that we're headed  
15 to. And so I really think this is important.

16           And I'll just say that when I was in grad  
17 school at UC Berkeley, really pretty much the  
18 electrical engineering department was a computer  
19 engineering department and not an electrical  
20 engineering department and they actually, I mean, they  
21 had to resort to having me TA the power systems class,  
22 which really tells you a lot of how low the quality got  
23 there for awhile.

24           So I'm really glad to see this evolution and  
25 I think it's terrific, so congratulations.

1 COMMISSIONER DOUGLAS: So I'll move Item 4.

2 COMMISSIONER HOCHSCHILD: Second.

3 CHAIRMAN WEISENMILLER: All those in favor?

4 IN UNISON: Aye.

5 CHAIRMAN WEISENMILLER: This item also passes  
6 four to zero. Thank you.

7 MR. MACARI: Thank you.

8 CHAIRMAN WEISENMILLER: Keep up the good  
9 work.

10 Let's go on to Item Number 5, which is Delta  
11 Diablo Sanitation District, possible approval of  
12 Amendment 1 to Contract 500-10-034 to provide a 24  
13 month time extension.

14 Rizaldo Aldas, you want to describe what  
15 we're doing here.

16 MR. ALDAS: Good morning Commissioners. My  
17 name is Rizaldo Aldas with the Energy Research and  
18 Development Division. I am here to seek your approval  
19 of this amendment, the scope of which include the 24  
20 month time extension that you mentioned, change or  
21 revising the scope of work, changing subcontractors,  
22 budget reallocations, and updating the terms and  
23 conditions.

24 This project is with the Bay Area Biosolids  
25 to Energy Coalition, being represented here by the

1 contractor, Delta Diablo Sanitation District. The  
2 Coalition is a consortium of 19 Bay Area public  
3 agencies seeking innovative, local, sustainable  
4 solutions to biosolids management by utilizing the  
5 latent energy contained in the material.

6           As most of you may know, biosolids are the  
7 principal by-product of wastewater treatment facilities  
8 produced by removing the organics, typically by the  
9 process of anaerobic digestion. California's biosolids  
10 resource is estimated at a gross of 872,000 bone dry  
11 ton where more than 158,000 of that is generated from  
12 the San Francisco Bay area alone.

13           The existing options for using biosolids are  
14 very limited, primarily land application and  
15 alternative daily cover in landfills, and face  
16 increasing environmental challenges that may ultimately  
17 eliminate those options.

18           Now, two years ago, the Coalition, with  
19 strong support from Bay Area Legislators, submitted an  
20 unsolicited proposal to the Energy Commission to fund a  
21 project demonstrating a regional biosolids to energy  
22 technology. However, after the contract was approved  
23 by the Energy Commission, the technology provider was  
24 unable to secure all necessary financing commitments  
25 from its partners and was unable to implement the

1 project. The Coalition is requesting that the Energy  
2 Commission extend and revise this agreement to allow  
3 the demonstration to be completed with a similar  
4 innovative technology for converting biosolids to  
5 energy.

6 Under the new agreement, the Coalition plans  
7 to partner with Lawrence Livermore National Laboratory  
8 and a private company, Chemergy, to develop and  
9 demonstrate a thermo-electro-chemical conversion  
10 technology well-suited to biosolids. The technology  
11 has been developed at laboratory scale. The next step  
12 is a larger scale demonstration. This new  
13 demonstration is similar to the original concept in the  
14 original unsolicited proposal in that the primary  
15 product here is hydrogen from biosolids which will then  
16 be demonstrated for electricity generation.

17 At this point, I would like to acknowledge  
18 the presence of Ms. Caroline Quinn and Mr. Mike Robson,  
19 representing the Bay Area Biosolids Coalition. I am  
20 ready to answer questions you may have. Thank you.

21 CHAIRMAN WEISENMILLER: Please, I was going  
22 to invite them to step to the microphone if they have a  
23 few comments.

24 MS. QUINN: Thank you very much. On behalf  
25 of our coalition, I'd like to thank Rizaldo and all the

1 staff at the Energy Commission for working with us on  
2 this, and the Commission for your consideration.

3 Technology innovation is so important to our  
4 industry to meet the challenges we face and to meet our  
5 goals of resource recovery, and it's very challenging  
6 too and we very much appreciate the Energy Commission's  
7 leadership and help through this process in developing  
8 new technologies to help us meet those needs.

9 CHAIRMAN WEISENMILLER: Thank you. Thank you  
10 for being here.

11 Commissioners, any questions or comments for  
12 staff?

13 COMMISSIONER MCALLISTER: I'll move Item 5.

14 COMMISSIONER DOUGLAS: Second.

15 CHAIRMAN WEISENMILLER: All those in favor of  
16 Item 5?

17 IN UNISON: Aye.

18 CHAIRMAN WEISENMILLER: Item 5 passes four to  
19 zero. Thank you.

20 MR. ALDAS: Thank you.

21 CHAIRMAN WEISENMILLER: Let's go on to Item  
22 Number 6, which is Trustees of the California State  
23 University, possible approval of 20 highest ranking  
24 command applications totaling \$1,815,274, and this is  
25 money coming from the PIER electricity and natural gas

1 funding.

2 Raquel Kravitz, please.

3 COMMISSIONER DOUGLAS: Chairman Weisenmiller,  
4 before we take up this item, I just wanted to make a  
5 brief announcement or disclosure.

6 There are a couple of items under this Item  
7 6.a.ii, Item 6.c.i, 6.c.4, and d.4, that are contracts  
8 where the regents of the University of California is an  
9 interested party. I'd like to disclose for the record  
10 that I'm an adjunct professor at the University of  
11 California at King Hall, the UC Davis School of Law,  
12 where I'm currently teaching a renewable energy law  
13 seminar. King Hall is a different department than the  
14 departments interested in these contracts; therefore,  
15 our chief counsel advises that there's no conflict of  
16 interest.

17 For the record, I'll also disclose that I am  
18 team teaching this seminar with Chief Counsel Michael  
19 Levy, so this disclosure relates to him, as well.

20 CHAIRMAN WEISENMILLER: Thank you. Now any  
21 questions or comments on these contracts?

22 I was going to indicate that certainly the  
23 Innovative Small Grant Program as we're going through  
24 the PIER reauthorization had a paper put together by  
25 Professor Jim Sweeney from Stanford and one of our

1 staff scientists that found these programs to be  
2 remarkably cost effective in terms of their benefits to  
3 California for the dollars that we're providing.  
4 Certainly Laurie will be happy to provide copies of  
5 that paper to any of the Commissioners or for that  
6 matter any of the public that's interested.

7           COMMISSIONER MCALLISTER: Yeah, I'll just  
8 comment that as a group, I think this suite,  
9 substantial number of projects is really impressive. I  
10 mean, it's a broad range of Activation. I was not  
11 involved in the selection and am seeing, in my briefing  
12 I'm looking at the business meeting seeing some of  
13 these things come through for the first time and  
14 recognize some of the names, so I think knowing what  
15 the process is for vetting and understanding how  
16 rigorous it is, I can vote for this with confidence.

17           CHAIRMAN WEISENMILLER: Actually, why don't  
18 you go through the presentation. Sorry, got off track.

19           MS. KRAVITZ: Good morning, Commissioners.  
20 My name is Raquel Kravitz from the Energy Research and  
21 Development Division for the Energy Innovation Small  
22 Grants Program, commonly known as EISG.

23           Staff seeks approval for funding the 20 grant  
24 proposals totaling a little bit over 1.8 million from  
25 the EISG Solicitation 12-01, consisting of

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1 Transportation Electricity, Transportation Natural Gas,  
2 Natural Gas and Electricity.

3           To give you a little bit of a background,  
4 this program was first established in 1998. It is a  
5 component of the Public Interest Energy Research Group,  
6 and it is currently being administered by an outside  
7 contractor.

8           So this program supports the healthy growth  
9 of new energy technologies that has not yet been  
10 established. It is open to everyone, and the types of  
11 applications that we see are usually from small  
12 businesses, nonprofit organizations, academic  
13 institutions and from individuals. It provides up to  
14 95,000 for hardware concepts and up to 50,000 on  
15 modeling concepts.

16           So each of the research projects must cover  
17 one or more of the PIER R&D research areas. It must  
18 address the California energy problem, and must provide  
19 a potential benefit to California's electric and  
20 natural gas rate payer.

21           I just wanted to let you know that all these  
22 20 projects are from California. And on the average we  
23 do about three solicitations a year seeking innovative  
24 research in the four categories I mentioned earlier.

25           The best measure that I can tell you about

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1 this program is that over half of the funding that --  
2 over half of the projects that receive funding through  
3 this program receive follow-on funding, which is a  
4 great indicator that lets you know that there are other  
5 people that are also interested.

6           The solicitation process for this program is  
7 very competitive. Only projects that meet the multiple  
8 levels of review receive funding. It is a two-stage  
9 process after the administrative review where they look  
10 at whether the projects meet one or more of the PIER  
11 R&D research, and then after that it goes through a  
12 technical review where they look at the overall  
13 technical merit of each of the projects. And after  
14 that it goes through our program technical review. In  
15 this review they look at the program policies and  
16 guidelines, whether each of the projects meets those.

17           For Solicitation 12-01 the breakdown is this.  
18 There were 54 proposals that was received; 36 passed  
19 the admin review that went to technical review; and  
20 from technical review there was 26 that passed that  
21 went to program technical review; and from program  
22 technical review there are 20 proposals that are being  
23 recommended for funding. All of these 20 cover the  
24 PIER research R&D research areas.

25           I ask your approval to fund the 20 projects

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1 under this EISG Solicitation 12-01. My technical team  
2 and I will be happy to answer any questions that you  
3 might have. Thank you.

4 CHAIRMAN WEISENMILLER: Thank you very much.  
5 Commissioners, any other questions or  
6 comments?

7 COMMISSIONER MCALLISTER: Just to point out  
8 that, you know, each of these individual grants is  
9 relatively small, but historically my understanding is  
10 that a lot of follow-on funding comes in, both matched  
11 during and then afterwards. There's a pretty high  
12 success rate of pulling in additional funding and  
13 leveraging lots of private sector and other grant funds  
14 from elsewhere, so if you have anything additional to  
15 add about sort of that point about how much traction  
16 these items actually have out there, that would be  
17 helpful.

18 MS. KRAVITZ: So for the total fund, if I can  
19 recall, previously there were about 34 million total  
20 that we funded through this program, and the follow-on  
21 funding for that is a little bit over 1.8 billion right  
22 now.

23 COMMISSIONER MCALLISTER: Thank you. So I'll  
24 move Item 6.

25 COMMISSIONER DOUGLAS: Second.

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1 CHAIRMAN WEISENMILLER: All those in favor of  
2 Item 6?

3 IN UNISON: Aye.

4 CHAIRMAN WEISENMILLER: Item 6 passed  
5 unanimately. Thank you.

6 Let's go on to Item 7, which is Buster  
7 Biofuels, LLC, possible approval of Agreement ARV-12-  
8 035 with Buster Biofuels for a grant of \$2,641,723, and  
9 this is ARFVTP funding.

10 Andrew Hom, please.

11 MR. HOM: Good morning, Commissioners. My  
12 name is Andrew Hom. I'm from the Emerging Fields and  
13 Technologies Office in the Fuels and Transportation  
14 Division. I'm here to seek the approval for Agreement  
15 ARV-12-35 to Buster Biofuels, LLC, for \$2,641,723 in  
16 ARFVTP funding.

17 Buster Biofuels plans to convert an  
18 industrial warehouse building into a 4.84 million  
19 gallon per year biodiesel facility in the city of  
20 Escondido in San Diego County. The facility will  
21 integrate a two-stage [certification 0:48:41] process  
22 to produce the ASTM quality biodiesel from used cooking  
23 oil.

24 Currently, Buster Biofuels has contracts with  
25 over 1400 facilities for the procurement of used

1 cooking oil, most prominently with the San Diego Padres  
2 and Lego Land, California. The fuel produced will  
3 supply local vehicle fleets and increase in-state  
4 biofuels production. The estimated reduction in GHG  
5 emissions is up to 32,000 tons annually.

6           Buster Biofuels is providing \$4.5 million in  
7 matched funding and the new facility will create up to  
8 28 contractual jobs through building and insulation, as  
9 well as 16 to 18 full-time jobs through the operation  
10 of the facility.

11           Thank you for your consideration and staff  
12 requests the Commission support this project.

13           Buster Halterman, CEO of Buster Biofuels,  
14 would like to make a comment and answer any questions.

15           MR. HALTERMAN: Hello, there.

16           Andrew, I'd like to thank you for bringing us  
17 here today, and the Commission, thank you very much for  
18 the opportunity to sit in front of you and have our  
19 proposal considered.

20           Brian Sakel, my partner, thank you for all  
21 your sweat equity to get us here as well, and the grant  
22 firm, our technical fabrication designing our  
23 equipment, and all our engineers, but I'll elaborate  
24 shortly.

25           We started as a company in 2009 and, you

1 know, realized that there was just a huge problem with  
2 biodiesel accessibility. Here we are in California  
3 where we should be making it more accessible than  
4 anywhere else. In talking with several companies like  
5 Lego Land, Padres, SDG&E, all these companies would  
6 love to have something dovetail into their green  
7 initiative, and we set out with a mission to reclaim  
8 this used cooking oil, recycle it into biodiesel and  
9 refuel companies like this and help them reduce their  
10 carbon footprints.

11           And evolving from that, it's enabling us to  
12 help California with their biodiesel deficit. You  
13 know, we need to really ramp up production. I think  
14 we'll be the eighth plant here in the state.

15           It's been a long road, an exciting road, and  
16 we're happy to bring this dream to fruition. We  
17 appreciate your support where we can create about 20  
18 jobs out of this project and, you know, beyond this  
19 there's bigger dreams to come with other biofuels that  
20 we'd like to get into.

21           So I'm here to answer any questions for you  
22 and appreciate the opportunity again, thanks.

23           CHAIRMAN WEISENMILLER: Well, thank you for  
24 being here.

25           Commissioners, any questions or comments?

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1           COMMISSIONER DOUGLAS: No questions. Just as  
2 a comment, this is a really interesting project. I  
3 certainly wish you luck with it and certainly working  
4 to bring biofuel to a company fleet is a nice way of  
5 getting this market going and helping take it through  
6 to the next step, so I'm very pleased to see it.

7           If there are no other questions, I'll move  
8 Item 7.

9           COMMISSIONER HOCHSCHILD: Second.

10          CHAIRMAN WEISENMILLER: All those in favor?

11          IN UNISON: Aye.

12          CHAIRMAN WEISENMILLER: This item also passes  
13 four to nothing. Thank you. Again, thanks for being  
14 here.

15          Motiv Power Systems, Inc., Number 9. Again,  
16 we're skipping 8. And this is possible approval of  
17 ARFVTP funding contract and this is for \$2,379,050, and  
18 Barry McLeod, please.

19          MR. MCLEOD: Good morning, Commissioners.  
20 I'm Barry McLeod from the Fuel and Transportation  
21 Special Projects Office. I am requesting approval of  
22 Agreement Number ARV-12-032 for Motiv Power Systems,  
23 Incorporated. This requests a grant of \$2,379,050  
24 combined with Motiv's matching funds of \$7,137,153 will  
25 be used to establish a production line capable of

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1 increasing production of their power control systems to  
2 meet their delivery goals.

3           The power control system is an electronic  
4 vehicle drive train that includes hardware and software  
5 that is compatible with any battery and electric motor  
6 combination. The key to Motiv's product is that their  
7 five components of the drive train are able to balance  
8 power from different age, capacity and chemistries of  
9 batteries and convert the power into useful energy to  
10 run any type of electric vehicle motor.

11           When using multiple batteries, if only one  
12 needs to be replaced, that can be accomplished with  
13 whatever new technology is in use at the time and the  
14 older batteries can stay in use.

15           These power trains can be installed in a wide  
16 variety of manufacturer's vehicle types. Due to great  
17 interchangeability of truck engines and transmissions,  
18 the Motiv power control systems can easily be installed  
19 in existing medium and heavy duty vehicles, such as  
20 shuttle busses and route delivery trucks.

21           Motiv Power Systems, Incorporated, based in  
22 Foster City, has received two previous grants from the  
23 Energy Commission. With the first grant in 2009 they  
24 produced a prototype electric shuttle bus using an  
25 existing bus frame and body, but replaced the diesel

1 drive train with their innovative power control system.

2           The bus was used as one of the vehicles  
3 operated by Bauer's Transportation in the San Francisco  
4 Bay Area. It's performance was monitored by Motiv  
5 through real time telemetry.

6           Their second CEC funding is through the Cal  
7 Start grant from 2011. Motiv is supplying four of  
8 their power trains to a vehicle manufacturer for them  
9 to install in three bus chassis to be operated by Bauer  
10 Transportation, and one service vehicle chassis for the  
11 City of Bakersfield.

12           The purpose of this grant is to establish a  
13 manufacturing line that is capable of producing 20  
14 power systems per month. Motiv anticipates that 30  
15 full-time and three temporary jobs will be created or  
16 saved due to this project.

17           Thank you for your time and I'd be happy to  
18 answer any questions you may have.

19           CHAIRMAN WEISENMILLER: Thank you.

20           Commissioners, any questions or comments?

21           COMMISSIONER DOUGLAS: No. Again, I think  
22 this looks like a really interesting project. I'll be  
23 very interested to see how this goes, because it's a  
24 really nice opportunity.

25           So with that, I'll move Item 8.

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1           COMMISSIONER MCALLISTER: I want to make one  
2 comment here.

3           COMMISSIONER DOUGLAS: I'm sorry, we're on 9.

4           COMMISSIONER MCALLISTER: Just very briefly.  
5 Oh, sorry.

6           COMMISSIONER DOUGLAS: We're on 9.

7           COMMISSIONER MCALLISTER: Okay. So I just  
8 wanted to point out that the transportation  
9 electrification of our fleet and various beyond that  
10 the sort of reorientation of our transportation fleets  
11 in the state is really a place where some very  
12 fundamental heavy lifting is going on right now, and  
13 this represents one of those projects, and it's a new  
14 way of doing things. It's got a lot to like in this  
15 technological approach that's got flexibility kind of  
16 built into it, and I think that adaptive capacity is  
17 really important going forward, so it's moving towards  
18 electrification but in way that can adapt and evolve  
19 and doesn't require massive change-outs of  
20 infrastructure. The controller can move with the times  
21 and battery chemistries and stuff. And also, it's  
22 scaling in a way that seems responsible and sort of  
23 engineering heavy to be robust, and so I inspire some  
24 confidence.

25           Even though we all acknowledge that this is

1 an interesting and transformational moment, so it's  
2 hard to tell what the future looks like, but this is a  
3 very good bet and I'm happy to vote for it, so I'll  
4 second.

5 CHAIRMAN WEISENMILLER: All those in favor?

6 IN UNISON: Aye.

7 CHAIRMAN WEISENMILLER: This item also passes  
8 four to nothing. Thank you.

9 MR. MCLEOD: As a closing comment, they'll be  
10 here next Tuesday morning with their shuttle bus if you  
11 want to see it at quarter to eight. They'll be taking  
12 people to the Cal Start conference at the Hilton Hotel.

13 CHAIRMAN WEISENMILLER: Well, that's very  
14 good. That's very good. Good idea.

15 Let's go on to Item Number 10, which is  
16 alternative fuel vehicle buy-down incentives, possible  
17 approval of a total of \$560,000 of basically the ARFVTP  
18 funding.

19 Andre Freeman, please.

20 MR. FREEMAN: Good morning, Commissioners.  
21 My name is Andre Freeman, I'm a staff member in the  
22 Fuels and Transportation Division Emerging Fuels and  
23 Technologies Office. Today I'm seeking your approval  
24 of the latest batch of incentive reservations for  
25 approving vehicles that will be funded through the

1 Alternative Renewable Fuel and Vehicle Technology  
2 Program.

3           As you know, the Energy Commission's Natural  
4 Gas and Propane Vehicle Buy-down Program is designed to  
5 promote the purchase and replacement of the aging  
6 gasoline and diesel fleets that exist in California.  
7 This program provides incentives for consumers to adopt  
8 technologies which help improve the air quality, reduce  
9 petroleum usage in the state, as well as boost our  
10 economy.

11           This batch of reservations will provide  
12 incentives for the purchase of 25 school busses and ten  
13 light duty trucks. These vehicles will all be operated  
14 at least 90 percent of their time within California's  
15 borders.

16           With that, I'd like to thank you for your  
17 consideration of this item and am available for any  
18 questions you may have.

19           CHAIRMAN WEISENMILLER: Thank you.

20           Commissioners, any questions or comments?

21           COMMISSIONER HOCHSCHILD: Yes, just what  
22 portion of the vehicle cost does the buy-down  
23 represent?

24           MR. FREEMAN: It varies. The incentives have  
25 been tiered by each gross vehicle weight to represent a

1 portion of the incremental cost going between the  
2 gasoline and propane vehicle, which can vary anywhere  
3 between \$3,000 for the light duty ones, which we kind  
4 of set our incentive for for those light duty tiers,  
5 all the way up to \$40,000, \$50,000 parts differential  
6 for the larger heavier duty vehicles.

7           COMMISSIONER MCALLISTER: So I will move  
8 Item 10.

9           COMMISSIONER DOUGLAS: Second.

10          CHAIRMAN WEISENMILLER: All those in favor?

11          IN UNISON: Aye.

12          CHAIRMAN WEISENMILLER: Item 10 passed  
13 unaniously four to zero.

14          MR. FREEMAN: Thank you.

15          CHAIRMAN WEISENMILLER: Thanks.

16          Let's go on to Item 11, Minutes, possible  
17 approval of February 28th business meeting minutes.

18          COMMISSIONER MCALLISTER: I'll move Item 11.

19          COMMISSIONER DOUGLAS: Second.

20          CHAIRMAN WEISENMILLER: All those in favor?

21          IN UNISON: Aye.

22          CHAIRMAN WEISENMILLER: Item 11 is also  
23 passes four to zero.

24          Let's go on to lead Commissioner or  
25 presenting member reports. Okay. A couple things I

1 was going to report on.

2 First, I was going to note that I've been  
3 selected to participate in the Governor's trip to  
4 China, so I will be missing the next business meeting.

5 And also, I wanted to cover some of the  
6 things I did last week in terms of travel.

7 So ACORE had an event down in San Diego on  
8 transportation and defense. I was there for the second  
9 day, one of the early morning keynote speakers and  
10 talked about our transportation program.

11 It was a fun panel in that there was the San  
12 Diego Clean Tech talked a little bit about what they  
13 were doing. And Dan Sperling talked about  
14 transportation in terms of the Air Board's overall  
15 policies and the issues in transportation. Pretty --  
16 anyway, very interesting presentation. I talked about  
17 basically 118 and how that fit into things.

18 So pretty well received in terms of, I think  
19 all the presentations were. They are posted on the  
20 ACORE website now in terms of who was at the meeting  
21 and all the various presentations. It was two days.  
22 Actually, Jackie Pfannenstiel had been there the day  
23 before to talk about energy efficiency, but I was more  
24 on the transportation part of it.

25 And then I went down to the Imperial Valley

1 Renewable Energy Summit in Holtsville, for those of you  
2 who have not been to Holtsville. But anyway, and that  
3 was actually, again, it was a good conference. I think  
4 they appreciated it. I was there on a panel with  
5 Commission Peterman and Karen Edson from the ISO, and  
6 Michael Picker. I was a keynote speaker.

7           And it's very clear there's a lot happening  
8 in Imperial Valley, particularly on solar. I think  
9 they were all, they frankly would wish to see more  
10 development of geothermal.

11           The first day of the conference they had a  
12 bus that took everyone onto the various sites, which  
13 was -- I was going to say, everyone assured it was a  
14 very long bus ride to see all the various projects that  
15 are occurring there.

16           And the economic development gentleman gave a  
17 presentation at lunch that was very effective. It was  
18 a slide, a picture of the project. Talked about number  
19 of jobs, talked about the cost, obviously power, and  
20 then talked about the direct benefits back to Imperial  
21 from the project.

22           At this point most of those projects are on  
23 basically the Sunrise power link. I think all the  
24 projects that are using that are now under construction  
25 and difficulties with IAD have been worked through.

1           It was interesting coming in. We talked a  
2 little bit about the wind adaptive stuff this morning.  
3 Pattern Energy has done a wind development that you see  
4 coming in going into Imperial Valley, and as I was  
5 going out I noticed there's all these big wind  
6 machines, and one of them was not rotating at all,  
7 spinning at all, and then at the same time I saw a  
8 bird, so I know that one of the things that that  
9 company has been very strong on is building radar in  
10 and basically trying to mitigate the impacts of avian  
11 impacts by basically stopping the machines if there's  
12 anything too close. So it was pretty impressive to  
13 actually see it working as you're going by on the  
14 freeway.

15           So anyway, a lot of interest there in  
16 renewable. You know, they certainly -- the employment  
17 situation in Imperial Valley is pretty dire. And there  
18 are issues with ag land. Obviously, I'm sure  
19 Commission Douglas in the DRACP context understands.  
20 And there was discussions about the trade-offs between  
21 water for projects, prime ag land, and jobs. For  
22 better or worse, our projects take a lot for  
23 construction, some for operating, but not nearly as  
24 much as, say, people working out in the fields.  
25 Obviously higher pay.

1           But anyway, and then finally I spent Friday  
2 at the Stanford Institute of Economic Policy Research.  
3 They had an all-day conference. Again, very  
4 interesting, very well attended. Actually, it was  
5 packed, you know, sold out is the bottom line. And a  
6 lot of very interesting research on economic research  
7 starting out with tax policy, health care.

8           I was on a panel at the end that was chaired  
9 by Secretary Schultz with a couple of Stanford economic  
10 professors talking about cap and trade, and basically  
11 greenhouse gas issues.

12           So I would say Secretary Schultz is really  
13 impassioned on these issues, had been back at D.C. the  
14 prior week arguing that there should be a revenue  
15 neutral carbon tax as part of the solution of  
16 greenhouse gas.

17           So anyway, it was a long four days but  
18 certainly pretty productive.

19           COMMISSIONER HOCHSCHILD: One thing. I have  
20 had the opportunity to do a couple site visits since  
21 I've been on. I was invited to go speak at IAP and  
22 when I was down there I went to go see the geothermal  
23 facility at Salton Sea, which is fascinating.

24           So there is now 1400 megawatts statewide of  
25 geothermal, and they told me there's another 3400

1 megawatts of potential geothermal development, which is  
2 exciting. I hadn't realized it was that significant,  
3 so if that all gets built out, you know, ten percent of  
4 the state's load, which is bigger than I had been aware  
5 of. But it was fascinating to get that tour.

6 I also went to go see the 550 megawatt  
7 facility, the first solar that was built in Desert  
8 Sunlight which is being built at a rate of one megawatt  
9 a day, and just seeing the scale and the speed with  
10 which these facilities are coming online now is very  
11 exciting.

12 So I also want to just take the opportunity  
13 to introduce everyone to my new advisor, Kelly Foley.  
14 Can you raise your hand? She started yesterday. She  
15 comes to the Energy Commission with a depth of  
16 experience in the energy sector in California. She  
17 worked for 11 years as an attorney both for Sempra and  
18 PG&E, and for the last few years have (inaudible)  
19 solar, and she just started yesterday and she's going  
20 to be a tremendous asset to my office. Very happy to  
21 have her on board and really want to thank the  
22 executive director and his team for working to bring  
23 her on so quickly. So happy to have her.

24 CHAIRMAN WEISENMILLER: Well, certainly  
25 welcome aboard. I would note, just following up on

1 your comment on geothermal, that I did have a very good  
2 dinner with Kevin Kelly down there, and there's  
3 basically the Salton Sea in terms of the potential  
4 environmental collapse of it has them really scared,  
5 and they would like to see another thousand megawatts  
6 of geothermal develop there as part of a public/private  
7 partnership that might come up with some funding to  
8 basically deal with environmental mitigation there.

9           We had a stakeholder group a long time ago  
10 that looked at basically the transmission line build-  
11 out for the development there, and so we talked about  
12 maybe trying to set up a stakeholder group down there  
13 with a game plan of coming up with an action plan to  
14 develop a thousand megawatts of geothermal and tie that  
15 into the restoration of Salton Sea. And so they're  
16 very interested in that.

17           The next morning I ran into Jonathan Weisgul  
18 from Mid American, and they must have called him just  
19 as he walked in the door because they had already  
20 approached him about that idea, and so certainly one of  
21 the things, the nice part about this part of our agenda  
22 is at least I can have a conversation with more than  
23 one Commissioner on a topic, and this is something  
24 where they reached out, they really would like us to  
25 help get this going, and obviously one of the issues

1 for us to sort through is you're now the renewable  
2 czar, and at the same point Karen Douglas has history  
3 down there on the Salton Sea issues, and so somehow we  
4 need to figure out a way to bring both of your skills  
5 and talents into this activity, but again, once you're  
6 down in Imperial Valley it's very clear they need the  
7 jobs, and if this can basically help us deal with a  
8 potential environmental -- I can't figure out the right  
9 adjective, but at least challenge if not disaster, that  
10 would certainly make a lot of sense to move in that  
11 direction.

12                   So with that, let's go on to chief counsel's  
13 report.

14                   MR. LEVY: Good morning, Commissioners. I  
15 have no report today.

16                   CHAIRMAN WEISENMILLER: Okay. Then let's go  
17 to executive director's report.

18                   MR. OGLESBY: Thank you, Mr. Chairman and  
19 Commissioners. Just an announcement I want to share  
20 with you.

21                   When I first came to the Commission a little  
22 under two years ago and discovered how much funds we  
23 awarded in grants and loans, hundreds of millions a  
24 year, I explored our internal capability to do audits  
25 and also monitor projects externally, and we've

1 frequently relied on outside resources to do this  
2 auditing function. It didn't have as robust of an  
3 internal auditing and overview function that I would  
4 like to see.

5           We went to the Legislature and got  
6 authorization for some positions to establish a more  
7 robust audit program and today I can announce that we  
8 have added an assistant executive director for audits,  
9 investigations and program review. Her first day was  
10 Monday and her name is Mary Kashmisrab and she's in the  
11 room, if you could stand just for a moment to be  
12 recognized.

13           And I'm very pleased to have her aboard. She  
14 has extensive experience and will be building a team to  
15 enhance our program oversight and operations on our  
16 financial obligations.

17           CHAIRMAN WEISENMILLER: That's great.  
18 Mr. McAllister has something.

19           COMMISSIONER MCALLISTER: Yes. I'm going to  
20 have to -- with all the announcements that's great.  
21 Congratulations to Kelly for coming on board, and  
22 certainly it's great to have better auditing and  
23 enforcement capacity here. I mean, I think that we're  
24 moving in a world where that's just more important than  
25 ever, and congratulations for making that happen. It's

1 a big improvement.

2           So I'm going to have to, you know, match the  
3 arms race here by announcing that I have a new primary  
4 advisor, Hazel Miranda, who's over here on my left,  
5 your right, who came on board a couple weeks ago now,  
6 but I believe this is her first business meeting. So  
7 I'm really happy to have her on board in my office  
8 working with Pat and me to move our agenda forward on  
9 energy efficiency and IPER this year. So very welcome,  
10 big welcome to Hazel.

11           CHAIRMAN WEISENMILLER: You're welcome.  
12 Thanks for coming.

13           Okay, let's go to public advisors report.

14           MR. ROBERTS: Nothing to report.

15           CHAIRMAN WEISENMILLER: Public comment?  
16 Nothing.

17           Okay, this meeting is adjourned.

18                           (Adjourned at 11:17 a.m.)

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