



Commissioners Present

Karen Douglas  
Andrew McAllister  
Carla Peterman

Staff Present:

Rob Oglesby, Executive Director  
Michael Levy, Chief Counsel  
Jennifer Jennings, Public Advisor  
Harriet Kallemeyn, Secretariat

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Dale Rundquist	3
Patrick Saxton	4
Charles Smith	6, 7
Andre Freeman	8
Darren Nguyen	9, 10
Jared Cachco	11, 12
Dan Gallagher	13
Amir Ehyai	14
Karen Perrin	15
Johann Karkheck	16
Sarah Williams	17

Also Present

Interested Parties (\* Via WebEx)

Kevin Bell, Palomar Energy Center	3
Adrianna Kripke, SDG&E	3
Bob Raymer, Building Industry Assoc.	4
Daniel Witt, Tesla Motors, Inc.	7
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P R O C E E D I N G S

OCTOBER 10, 2012 10:16 a.m.

COMMISSIONER DOUGLAS: All right, good morning, welcome to the California Energy Commission Business Meeting of October 10, 2012.

Please join me for the Pledge of Allegiance. (Whereupon, the Pledge of Allegiance was recited in unison.)

COMMISSIONER DOUGLAS: All right, so Item 2, just touching on some changes to the agenda, there's nothing on Item 2, so we won't be taking up Item 2.

Item 5 will be held until the next Business Meeting.

And we'll take up Item 7 probably a little later in the agenda, probably -- maybe not last, but towards the end of the agenda.

So, with that let's take up Item 1, the Consent Calendar.

COMMISSIONER PETERMAN: I move the Consent Calendar.

COMMISSIONER MC ALLISTER: I'll second.

COMMISSIONER DOUGLAS: All in favor? (Ayes.)

COMMISSIONER DOUGLAS: Item 1 passes unanimously. Item 3, Palomar Energy Center; possible approval

1 of the petition to amend the Energy Commission decision for  
2 the Palomar Energy Center to build a new bridge crane for  
3 turbine overhauls and general maintenance.

4 Dale.

5 MR. RUNDQUIST: Good morning Commissioners. My  
6 name is Dale Rundquist and I am the Compliance Project  
7 Manager for the Palomar Energy Center.

8 With me this morning is Kevin Bell, Senior Staff  
9 Counsel. Also present are representatives from the Palomar  
10 Energy Center.

11 Palomar Energy Center, a 500-megawatt combined  
12 cycle power project, owned by San Diego Gas & Electric  
13 Company, SDG&E, was certified by the Energy Commission on  
14 August 6th, 2003 and began operation on April 1st, 2006.  
15 It is located in the City of Escondido, in San Diego  
16 County, California.

17 On May 29th, 2012 SDG&E filed a petition with the  
18 California Energy Commission to amend the Energy Commission  
19 decision for the Palomar Energy Center.

20 SDG&E is proposing to build a new bridge crane  
21 for turbine overhauls and general maintenance of  
22 surrounding equipment.

23 A notice of determination was mailed to the  
24 Palomar Energy Center post-certification mailing list,  
25 docketed and posted on the Energy Commission website on

1 July 2nd, 2012.

2 On July 9th, 2012 Mr. Mark Rodriguez, an  
3 Escondido resident, sent an e-mail to staff stating, in  
4 part that, "The notice of determination to install a new  
5 bridge crane needs to be reconsidered and addressed only  
6 after additional mitigation measures are implemented  
7 because of the fire on December 22nd, 2010."

8 This comment immediately elevated the staff-  
9 approved project modification to amendment status.

10 On August 7th, 2012 a staff analysis of the  
11 petition to amend was sent to the post-certification  
12 mailing list, docketed and posted on the Energy Commission  
13 website.

14 Staff reviewed the bridge crane petition for  
15 potential environmental effects and consistency with  
16 applicable LORS and considered the objections provided by  
17 Mr. Rodriguez.

18 Based on this review and the conclusions of the  
19 August 10th, 2011 report on December -- on the December  
20 22nd, 2010 fire at Palomar Energy Center, staff determined  
21 that no significant adverse impacts pertained to any  
22 technical area are expected to be created by the proposed  
23 project modification.

24 A bridge crane is a minor modification of the  
25 heat recovery steam generator structure.

1           The August 10th, 2011 staff report on the  
2 December 22nd, 2010 fire at Palomar Energy Center  
3 recommended, in part, "That no additional mitigation be  
4 required for the Palomar facility or for new facilities to  
5 be permitted by the Energy Commission in the future."

6           The August 10th, 2010 staff report further  
7 states, in part, "That the incident notwithstanding, the  
8 risk to public health and safety from such events is not  
9 likely to be significant because of their rarity, the low  
10 toxicity of the oil that might burn, and the engineering  
11 measures that are already required to be in place to  
12 prevent the fire from spreading."

13           While further mitigations may be technically  
14 feasible, they are not needed and would offer uncertain  
15 benefit for the costs involved.

16           Staff attempted to contact Mr. Rodriguez on  
17 September 20th and September 27th, 2012 to discuss his  
18 objections and concerns about the construction of the  
19 bridge crane. Staff left messages on both occasions.

20           Mr. Rodriguez returned staff's call on September  
21 27th, 2012. Staff discussed Mr. Rodriguez's concerns and  
22 objections and assured him that the December 2010 fire had  
23 been fully investigated and no further mitigation measures  
24 were required due to the fire, and that the bridge crane  
25 does not have a link to the earlier transformer fire,

1 emergency response, or incident investigation.

2 Staff sent the official Escondido Fire Department  
3 report to Mr. Rodriguez for his review. Mr. Rodriguez was  
4 very pleased to receive the complete report.

5 Energy Commission staff reviewed the petition and  
6 finds that it complies with the requirements of Title 20,  
7 section 1769(a) of the California Code of Regulations, and  
8 recommends approval of the project modification based on  
9 staff's findings.

10 Thank you.

11 COMMISSIONER DOUGLAS: Thank you, Dale. I see we  
12 have Adrianna Kripke, Senior Counsel for San Diego Gas &  
13 Electric here, if you'd like to comment now.

14 MS. KRIPKE: Good morning Commissioners, I want  
15 to thank you and staff for considering this proposal for a  
16 bridge crane at Palomar Energy Center. And I simply wanted  
17 to confirm SDG&E's view, consistent with staff's view, that  
18 this project will have no effect on the environment and  
19 also has no link to the fire that staff mentioned.

20 I'm also available to answer any questions you  
21 may have. Thank you.

22 COMMISSIONER DOUGLAS: Thank you. Now, is Mr.  
23 Rodriguez in the room or on the line? Did he want to  
24 comment on this item?

25 MR. RUNDQUIST: No, he -- we offered him that, I

1 sent him the agenda and instructions on how to participate,  
2 but he did not want to do that.

3 COMMISSIONER DOUGLAS: Okay. All right, thank  
4 you. So, I do have a question or a comment, it's not  
5 really based on the bridge crane because, you know, that is  
6 a minor amendment. I think staff's analysis was solid of  
7 that and, you know, I think the bridge crane amendment is  
8 fine, I can understand why that would be beneficial.

9 But I guess the question I have for you, Ms.  
10 Kripke, is that SDG&E's come in, in the past year, with I  
11 think five amendments, and so you've got a bridge crane.  
12 You were in here a few months ago to install an elevator.  
13 There's a gantry crane, there's a storage warehouse,  
14 there's a switch gear enclosure expansion. And these are  
15 all pretty minor amendments.

16 I just wanted to suggest that it would be helpful  
17 possibly to you, but certainly to us, if these amendments  
18 could be planned for and consolidated so that we're not  
19 taking five amendments through in a year.

20 Are there any other amendments that you have on  
21 the horizon that are of this nature?

22 MS. KRIPKE: My understanding, based on  
23 conversations with the technical staff at Palomar Energy  
24 Center is that we don't have any of these smaller  
25 amendments on the horizon.

1           There has been some investigation into efficiency  
2 improvements at Palomar Energy Center, and that's in the  
3 very early stages of consideration. We would notify staff  
4 and the Commission very early on about that.

5           And also, based on your comment, I think make  
6 sure that any other small items, just in terms of enhancing  
7 efficiency or just the day-to-day operations at the Center  
8 were combined with that.

9           We appreciate your comment and all of the  
10 consideration of these various amendments throughout this  
11 year.

12           COMMISSIONER DOUGLAS: That sounds great. I mean  
13 we would certainly welcome amendments that would help you  
14 improve efficiency. And at the same time the -- I think  
15 you -- you heard the gist of my comment, which is that  
16 where it's possible to consolidate these and bring them in  
17 together, we would appreciate that.

18           I think that would be better from everyone's  
19 perspective, including the perspective of the public  
20 because they see these things and they have to get their  
21 heads around what they are, and doing that fewer, rather  
22 than more times, is really helpful all around when it's  
23 feasible. I understand that it's not always feasible.

24           So, I don't have -- you know, I recommend this,  
25 Commissioners, for your approval, but I wanted to see if

1 you have questions or comments, first.

2 COMMISSIONER MC ALLISTER: I would just second  
3 the, you know, thoughtful engagement in just sort of  
4 workload considerations. Here and around in the community  
5 I know that there have been issues and we'll be fine with  
6 that plan.

7 Good news to hear about the potential efficiency  
8 improvements. I think we're all aware of the challenges  
9 coming up. You know, a project like that probably isn't  
10 happening by summer of 2013 but, you know, I think keeping  
11 a broad perspective of what improvements might bring value  
12 to the system is a good idea. So, I would encourage that  
13 discussion and ideation, if necessary. So, thanks.

14 Should I move it?

15 COMMISSIONER PETERMAN: No other comments.

16 COMMISSIONER MC ALLISTER: So, I'll move Item 3.

17 COMMISSIONER PETERMAN: I'll second.

18 COMMISSIONER DOUGLAS: All in favor?

19 (Ayes.)

20 COMMISSIONER DOUGLAS: Item 3 passes unanimously,  
21 thank you.

22 Item 4, Energy Provisions of the California Green  
23 Building Standards Code; possible adoption following  
24 publication of proposed changes in 15-day language comment  
25 period of the proposed 2013 updates to the energy

1 provisions of the California Green Building Standards Code  
2 and the California Code of Regulations Title 24, part 11.

3 Patrick.

4 MR. SAXTON: Good morning Commissioners, they're  
5 just get the presentation on the screen for us.

6 I'm Patrick Saxton from the High Performance  
7 Building and Standards Development Office. I'm here today  
8 requesting adoption of the proposed 2013 energy provisions  
9 of the California Green Building Standards Code and the  
10 California Code of Regulations Title 24, part 11, also  
11 known as CALGreen.

12 The next slide, please. The policy drivers for  
13 the energy provisions of CALGreen are the same as those for  
14 the Energy Commission's Building Energy Efficiency  
15 Standards in Title 24, part 6.

16 Examples of these policy goals are those for  
17 newly constructed residential buildings to achieve zero net  
18 energy by 2020, and newly constructed commercial buildings  
19 to achieve zero net energy by 2030.

20 They also continue the long-standing policy that  
21 energy efficiency be placed first in the loading order when  
22 determining the resource requirements for the State. And  
23 there's the overarching goal of reducing greenhouse gas  
24 emissions.

25 The remaining items are relevant policy documents

1 which embrace these policy goals.

2           The next slide, please. The 2005 Governor's  
3 Executive Order which called for greenhouse gas reduction  
4 targets and was the predecessor to the AB 32 California  
5 Global Warming Solutions Act was an impetus for the initial  
6 CALGreen in 2008.

7           These graph indicate the prominent role that  
8 buildings play in GHG emissions, approximately 24 percent  
9 for California's current emissions and also the goal for  
10 the reductions to be achieved by buildings through energy  
11 efficiency.

12           Approximately 70 percent of the electricity and  
13 natural gas sector's reduction share.

14           The next slide, please. The public process for  
15 the energy provisions of CALGreen began with staff  
16 workshops in the fall of 2011. There were significant  
17 stakeholder engagement and their comments and feedback have  
18 informed the efficiency measures which were ultimately  
19 included in the proposed language.

20           The bullets on this slide indicate why it's  
21 important to have energy provisions in CALGreen and why,  
22 for the first time, the Energy Commission will be adopting  
23 those energy provisions rather than informing the overall  
24 CALGreen development process.

25           The provisions will become the energy chapter of

1 the California Green Building Standards. For the most part  
2 that language will be included in the voluntary appendices.  
3 The provisions will become the new construction program  
4 targets for utility incentive programs, which is  
5 increasingly important as the synergy between building  
6 codes and the utility incentive programs continues to grow.

7           The energy provisions will become the basis of  
8 green building codes, which may be adopted by local  
9 jurisdictions. These could include the CALGreen Tiers I  
10 and II, Green Point rated, LEAD or jurisdiction-specific  
11 codes.

12           And currently for the 2010 CALGreen, or I should  
13 say the combination of the 2008 Building and Energy  
14 Efficiency Standards and 2010 CALGreen, there have been  
15 over 40 local ordinances which have been approved by the  
16 Commission, with the most recent being on this morning's  
17 consent calendar.

18           And, finally, the measures that are present in  
19 the energy provisions of CALGreen are queued for possible  
20 migration to the Building and Energy Efficiency Standards  
21 in Title 24, part 6 in the future.

22           The next slide, please. We'll now discuss the  
23 specific measure recommendations for various building  
24 types. In the voluntary appendix, A.4, will be the  
25 language for newly constructed residential buildings.

1           We have recommended prerequisites, which are  
2 measures that we believe should be included in all Tier I  
3 or Tier II residential building projects.

4           There's a whole building energy design rating  
5 which provides a metric for whole building energy  
6 consumption, which I'll discuss more on the next slide.

7           Quality insulation installation ensures that the  
8 performance level of the installed insulation will meet  
9 specifications.

10          High efficiency indoor and outdoor lighting can  
11 provide significant energy savings due to reducing the  
12 wattage of the installed lighting load.

13          For the performance standard target the Tier I  
14 and II has a recommendation of 15 percent or 30 percent  
15 reduction in the energy budget that would otherwise be  
16 allowed by part 6.

17          The next slide, please. The whole building  
18 energy design rating is a metric which will encompass a  
19 greater percentage of the energy present in the residential  
20 building.

21          Currently, Title 24, part 6 covers approximately  
22 45 percent of the energy use, which would be space cooling,  
23 space heating, water heating, and for residential building,  
24 lighting controls.

25          This whole building energy design metric will

1 also include appliances, plug loads, and the actual  
2 lighting power densities for indoor and outdoor lighting.

3           The rating will be calculated by compliance  
4 software based on default values from the HERS Technical  
5 Manual, and does not require additional input from the  
6 users of the software.

7           The recommendation would be to generate and  
8 report the rating, not to achieve any specific rating.

9           We've had several questions if electric vehicles  
10 would be involved or provisions for future electric  
11 vehicles would be part of this rating system. And they  
12 would not be.

13           The next slide, please. Also in the voluntary  
14 appendix A.4 are the recommendations for additions and  
15 alterations to existing residential buildings.

16           The only prerequisite would be a recommendation  
17 for high-efficacy indoor and outdoor lighting for any newly  
18 installed lighting.

19           The energy budget reductions for the performance  
20 standard targets range from 5 to 15 percent and are based  
21 on the tier level and the number of mechanical systems  
22 involved in the project.

23           If the addition or alteration changes only the  
24 envelope, without any changes to a mechanical system, just  
25 the prerequisites would be recommended.

1           The next slide, please. Voluntary appendix A.5  
2 has the recommended proposals for all nonresidential  
3 buildings. This would include newly constructed and also  
4 additions and alterations to existing nonresidential  
5 buildings; a 10 percent reduction in outdoor lighting  
6 power, which can provide energy savings due to the reduced  
7 wattage of the installed lighting load; a recommendation  
8 that high-rise multi-family dwelling units and hotel/motel  
9 guest rooms comply with the residential indoor lighting in  
10 the voluntary appendix A.4.

11           And this preserves the same relationship for  
12 these space types as currently exists in Title 24, part 6.

13           And a final prerequisite for large restaurants,  
14 which are defined as 8,000 square feet or larger, that  
15 would include either a solar domestic hot water heating  
16 system, with a 15 percent solar fraction or a 95 percent  
17 thermally efficient water heater.

18           Energy budget reductions for the performance  
19 standard targets would range from 5 to 15 percent depending  
20 on the tier level and the number of energy systems involved  
21 in the project, either indoor lighting or mechanical  
22 systems, or both.

23           And again, if the project is for the building  
24 envelope, only, only the prerequisites would be  
25 recommended.

1           The next slide, please. If the 2013 energy  
2 provisions of CALGreen are approved today, then the post-  
3 adoption rulemaking activities will be merged with those  
4 for Title 24, parts 1 and 6, which were previously adopted  
5 by the Energy Commission in May of this year.

6           The combined rulemaking package would be  
7 submitted to the California Building Standards Commission  
8 for approval at its December meeting.

9           And, finally, all provisions of part 11, which  
10 had been approved by the Building Standards Commission  
11 would be merged such that the energy provisions are  
12 encapsulated with the other part 11 provisions for  
13 publication.

14           There's one last note that there's also a  
15 proposed adoption order for the 2013 energy provisions of  
16 CALGreen that's before the Commission today.

17           Adoption of the 2013 energy provisions of  
18 CALGreen would also include an adoption of that proposed  
19 order.

20           Thank you and I'm happy to address any questions  
21 or comments.

22           COMMISSIONER DOUGLAS: Thank you, Patrick.  
23 Questions or comments, Commissioners?

24           COMMISSIONER MC ALLISTER: Okay. I'm looking  
25 forward to hearing what some of the folks in the audience

1 have to say because I think there are a few people, at  
2 least, who want to comment on this.

3 I think this is kind of landmark stuff. Thanks,  
4 Patrick, for all your hard work on this and the rest of the  
5 staff.

6 You know, we have -- for new construction in  
7 residential we have -- we have to get to zero net energy by  
8 2020 and we don't have that long. We have a couple of  
9 Title 24 Code cycles and I think a lot of discussions about  
10 how we're going to do that, and what the pathways are --  
11 and this is a huge step in that direction.

12 And just by encompassing appliances and other  
13 plug loads that, in and of itself, is a big step and, you  
14 know, very important, and the experience we're going to  
15 learn with the local jurisdictions and other utilizers and  
16 adopters of CALGreen I think is going to be instrumental in  
17 figuring out what the best, you know, most efficient  
18 pathway forward to reach the zero net energy goal is going  
19 to be.

20 So, a lot of work's gone into it up to now,  
21 there's a lot more work to come in the implementation, but  
22 I think it's in the direction we have to go in and it  
23 complements the part 6 very well.

24 And, you know, I think in that respect it's the  
25 right thing at the right time, even a little behind

1 schedule because we really have a lot of time pressure here  
2 to get things done.

3 So, you know, appreciate the -- well, really  
4 appreciate the leadership from various agencies, including  
5 the Governor's Office on this and also, you know,  
6 definitely staff's done some heavy lifting for them, and  
7 Pat's been very engaged in that.

8 So, that's all I'll kind of say, high-level for  
9 now, and welcome comments from others.

10 BOARD MEMBER FIGUEROA: Great. So, I've got a  
11 card from Bob Raymer, with the Building Industry  
12 Association.

13 MR. RAYMER: Thank you, Commissioners. I'm Bob  
14 Raymer with the California Building Industry Association  
15 and I'm here today to support adoption.

16 And I've also been requested by Matthew Hargrove,  
17 of the California Business Properties Association to  
18 support adoption of the nonresidential provisions. So,  
19 both residential and commercial sectors, we'd support  
20 adoption.

21 And with that, kind of looking towards the  
22 future, as Commissioner McAllister just made reference to,  
23 with our goals of zero net energy, particularly in the  
24 residential sector, as you saw from Patrick's probably  
25 fourth or fifth slide, about 55 percent of the energy load

1 in the house is related to plug load.

2           And so over the next three- and six-year cycle  
3 CBIA, and I'm sure a host of others, would love to work  
4 with the Commission and the Department of Housing in trying  
5 to more aggressively go after the plug load. We've done  
6 what we can to support the CEC efforts in Washington D.C.  
7 And to that extent that -- doing that and aggressively  
8 going after that within, particularly, the next three years  
9 will help reduce not only the physical size of the PV  
10 system on the roof but, of course, the cost.

11           And so there's a nice synergistic effect of that.

12           One last item, as we do go forward to the next  
13 18-month and three-year cycle on CALGreen and the energy  
14 regs., we hope that we could get the other sort of sister  
15 agencies, namely the Department of Housing and Community  
16 Development, and the Office of the State Fire Marshall in  
17 on the work that the CEC's doing at the front end.

18           We've got lot to do at electric vehicle charging  
19 stations for residential sector, both single-family and  
20 multi-family. We fully anticipate that there will be  
21 mandates by the time we hit the 2017 code and we want to  
22 make sure that we're not sort of learning by trial and  
23 error how to hook that up.

24           And that means we're going to have to have both  
25 the manufacturers and the utilities working with this

1 process, something that's a little bit new to the normal  
2 building code process in the State.

3 There's also, of course, a host of other efforts  
4 that will be needed to link in with the Electrical Code,  
5 the Fire Code, the Building Code, plumbing and mechanical.

6 And so all of these we can't fix the problems at  
7 the end of the cycle, we need to kind of get the agencies  
8 working together at the front end.

9 So with that, once again, we support adoption  
10 today. Thank you.

11 COMMISSIONER DOUGLAS: Well, thank you, Bob, for  
12 being here. It's been a real pleasure to work with you  
13 through the whole cycle.

14 MR. RAYMER: Right.

15 COMMISSIONER DOUGLAS: Are there any other  
16 comments on this item? I don't have any other cards.

17 Mike?

18 MR. LEVY: Yeah, just a really technical change.  
19 Actually, the document should be dubbed a resolution, not  
20 an order, so if you could --

21 COMMISSIONER DOUGLAS: Ah, resolution, okay.

22 Thank you.

23 All right, well, Commissioner McAllister you made  
24 a couple comments just teeing this item up, and I want to  
25 really second the comments that you made.

1           You know, this is a really important step forward  
2 towards the State's zero net energy goals and towards  
3 building in and solidifying some of the interagency  
4 coordination that Bob Raymer was just talking about in  
5 terms of the REACH standards and how measures that we work  
6 on here, from an energy savings perspective, can also be  
7 coordinated with the State Fire Marshall and with others.  
8 We do that now, but there's a lot of implementation going  
9 forward that will, I think, put us in a position to really  
10 build those relationships. And CALGreen is certainly a  
11 real opportunity to do that at the front end.

12           So, I'm really pleased to see this item come  
13 forward. I want to thank staff, you know, for your hard  
14 work and also there's been a lot of stakeholder engagement  
15 on this item and that's been very helpful, too.

16           I don't think I have any additional comments.  
17 Andrew, do you? No, okay.

18           COMMISSIONER PETERMAN: I'll just echo that I'm  
19 also supportive of this initiative and thank Commissioner  
20 McAllister for his leadership on this area, as well as  
21 Commissioner Douglas with her leadership with the energy  
22 efficiency up until this point.

23           Any time we can encourage exemplary performance  
24 by buildings we should. And I think this document -- or  
25 resolution's a step in the right direction.

1 COMMISSIONER DOUGLAS: Great, thank you. So, do  
2 we have a motion on this item?

3 COMMISSIONER MC ALLISTER: Sure, I will move Item  
4 4.

5 COMMISSIONER PETERMAN: I'll second.

6 COMMISSIONER DOUGLAS: All in favor?

7 (Ayes.)

8 COMMISSIONER DOUGLAS: The item passes  
9 unanimately. Thank you very much.

10 MR. SAXTON: Thank you, Commissioners.

11 COMMISSIONER MC ALLISTER: Thanks Pat.

12 COMMISSIONER DOUGLAS: So, we are going to move  
13 into some AB 118 items, now, and I we are going to take  
14 them in order. So, hopefully, nobody left the room to go  
15 get coffee.

16 We'll go Item 6, now, Alternative and Renewable  
17 Fuel and Vehicle Technology Program Investment Plan;  
18 possible approval of modifications to funding allocations  
19 for the 2011 and 2012 Investment Plan, and the 2012 to 2013  
20 Investment Plan Update for the program.

21 Charles.

22 MR. SMITH: Thank you. Good morning  
23 Commissioners. My name is Charles Smith and I'm with the  
24 Fuels and Transportation Division's Emerging Fuels and  
25 Technologies Office.

1           Today staff is requesting approval of funding  
2 adjustments to the 2011-2012 Investment Plan and 2012-2013  
3 Investment Plan Update for the Alternative and Renewable  
4 Fuel and Vehicle Technology Program, also known as the  
5 ARFVTP.

6           These funding modifications are necessary to  
7 allow the ARFVTP to utilize program funds more effectively  
8 and within the program's established fiscal deadlines.

9           If approved, these changes will allow staff to  
10 prepare solicitations and funding awards based on revised  
11 investment plan allocations.

12           First, I'd like to present the changes for the  
13 fiscal year 2011-2012 Investment Plan.

14           This 2011-2012 Investment Plan allocated \$500,000  
15 for the deployment of propane fueling infrastructure.

16           In the most recent solicitation for alternative  
17 fuel infrastructure, the Energy Commission received no  
18 applications for this category.

19           Staff is therefore requesting these funds be  
20 redirected to the charging infrastructure investment plan  
21 category. Unfunded projects in this category exist that  
22 can utilize the additional funding.

23           The 2011-2012 Investment Plan also allocated  
24 \$500,000 to support sustainability studies. However, no  
25 priority tasks have been identified in this field that

1 could utilize these funds.

2 Staff is therefore requesting that these funds be  
3 redirected to the category titled, "Develop and Demonstrate  
4 Advanced Technology Medium and Heavy Duty Vehicles."

5 Here again, unfunded projects in this category  
6 exist that could utilize the additional funding.

7 The 2012-2013 Investment Plan Update allocated a  
8 combined \$100 million for all categories. However, the  
9 Budget Act of 2012 reduced the Energy Commission's ARFVTP  
10 appropriation by \$10 million.

11 Therefore, the total funding allocation within  
12 the 2012-2013 Investment Plan Update will need to be  
13 reduced by a corresponding amount.

14 Staff requests approval to evenly reduce all  
15 funding categories by 10 percent.

16 I'd like to note that these reductions will not  
17 affect any pending awards or active agreements.

18 All of these changes are highlighted in the  
19 tables included in your background materials.

20 With that, I thank you for your consideration of  
21 this item and am available for any questions you may have.

22 COMMISSIONER DOUGLAS: Thank you, Charles. Let's  
23 see, questions or comments? I don't think I have any  
24 public comment on Item 6.

25 COMMISSIONER PETERMAN: I'll offer a couple of

1 comments. Staff's proposals are to ensure that the funds  
2 collected for the 118 program are spent and are spent on  
3 projects that will meet the goals of the program and our  
4 State goals in terms of having cleaner transportation.

5           They're also meant to make sure that these funds  
6 are spent in a fiscally responsible manner. As decisions  
7 occur and sometimes funding is reduced, we wanted to make  
8 sure that we are being fair to all the parties who are  
9 applying for money, and I support the even 10 percent cut  
10 across the board in the funding categories.

11           I'd like to note that we had a very successfully  
12 AB 118 Advisory Committee meeting that was open to the  
13 public, a few weeks ago, to talk about the current status  
14 of technologies and fuels and alternative vehicles.

15           We brought up these issues and these proposed  
16 changes to the '11-'12 budget and got good feedback from  
17 the Advisory Committee on that.

18           And we continue to work to communicate as openly  
19 and often as possible with our stakeholders regarding  
20 program changes, and I'm supportive of the ones proposed  
21 today.

22           COMMISSIONER DOUGLAS: Thank you, Commissioner  
23 Peterman. I agree, I think it's essentially, obviously,  
24 that we move to put this money to work on good projects as  
25 soon as possible. So, I'm really supportive of it.

1           I will note that in terms of the under-  
2 subscription of the sustainability category I think it  
3 would be great as, you know, you work with the investment  
4 plan to really identify some of the forward-looking  
5 sustainability issues that would be good for us to get a  
6 start on so that -- you know, so that we've done some  
7 ground work in some key areas and are prepared when issues  
8 might or can come up.

9           But at the same time, you know, I think that the  
10 first priority is definitely putting the money to work, so  
11 I'm strongly supportive of the reallocation.

12           COMMISSIONER PETERMAN: That's a great  
13 suggestion, Commissioner Douglas, and I encourage staff to  
14 do the same as well.

15           COMMISSIONER MC ALLISTER: So, I agree with the  
16 comments of the other Commissioners.

17           And I want to ask a question about sort of, you  
18 know, do you see any particular reasons for the under-  
19 subscription on the propane side and sort of what do things  
20 look like going forward for any future solicitations for  
21 that?

22           MR. SMITH: As for the under-subscription rate,  
23 it's a little difficult to know for sure. It's possible  
24 that either there was, you know, insufficient demand for  
25 the funding as offered, or the possibility that the right

1 people just didn't hear about it.

2 But in general, I would note that we haven't seen  
3 a lot of interest in propane fueling infrastructure in  
4 general.

5 COMMISSIONER MC ALLISTER: I do know --

6 COMMISSIONER PETERMAN: I'd say at the last --  
7 Commissioner McAllister, I'll just add that at the last  
8 Advisory Committee meeting we had, we had some  
9 representation from the propane community and one of the  
10 issues raised was how do we get the word out more, and how  
11 does their association get the word out about the  
12 availability of funding?

13 This is an area we have provided funds for in the  
14 past.

15 COMMISSIONER MC ALLISTER: Okay, yeah, great, I  
16 guess that would be my suggestion as well, so I'm glad --  
17 I'm behind the curve there on that. So thanks, thanks for  
18 managing.

19 You know, we have to get the money to work so I  
20 think, really, it's sort of a lesson in, hey, we've got  
21 to -- everybody who could be availing themselves of these  
22 programs needs to pay attention and needs to be on the  
23 right lists, and getting the notices, and pulling their  
24 teams together in advance to put together proposals that  
25 are fundable.

1           So, I think this is a great opportunity for the  
2 State and for our industries and so, you know, hopefully,  
3 they can take that back and the next RFP that comes around  
4 for their sector they can get some good proposals in. So,  
5 thanks, I'm supportive.

6           COMMISSIONER PETERMAN: I'd like to move, then,  
7 Item Number 5.

8           COMMISSIONER MC ALLISTER: I'll second.

9           COMMISSIONER PETERMAN: Oh --

10          COMMISSIONER MC ALLISTER: Oh, oops. Oh, right,  
11 it's 6, right.

12          COMMISSIONER PETERMAN: It's 6, sorry, I'd like  
13 to move Item Number 6.

14          COMMISSIONER MC ALLISTER: I'll second.

15          COMMISSIONER DOUGLAS: All in favor?

16          (Ayes.)

17          COMMISSIONER DOUGLAS: Item passes unanimously.  
18 Thank you very much.

19          And now we'll go to Item 7, Tesla Motors,  
20 Incorporated; possible approval of Agreement ARV-12-008 for  
21 a grant of \$10 million to Tesla Motors, Incorporated for  
22 the expansion of Tesla's manufacturing capacity in Fremont,  
23 California, and introduction of new equipment specifically  
24 designed for the manufacture of components of the Model X,  
25 and for final assembly of a finished vehicle.

1 Charles.

2 MR. SMITH: Good morning again, Commissioners.

3 My name is Charles Smith, I'm with the Emerging  
4 Fuels and Technologies Office.

5 Today staff is seeking approval of ARV-12-008, a  
6 grant for \$10 million in Alternative and Renewable Fuel and  
7 Vehicle Technology Program funds to Tesla Motors,  
8 Incorporated.

9 Tesla responded to PON-11-604, a solicitation to  
10 support advanced vehicle technology manufacturing in  
11 California. And they will be providing \$50,200,000 in  
12 match funding for this project.

13 The goals of this project are to accelerate the  
14 adoption of electric vehicles through the introduction of a  
15 new model that meets the needs of consumers, to expand jobs  
16 in California, and to support the long-term reduction of  
17 the price of electric vehicles for all Californians.

18 The primary activities in this project include  
19 the expansion of Tesla's manufacturing capacity in Fremont,  
20 the introduction of new equipment specifically designed for  
21 the manufacture of components for the Model X, and the  
22 final assembly of the finished vehicle.

23 As the world's first pure electric, all-wheel  
24 drive crossover vehicle, the Model X will provide  
25 Californians with a clean alternative to an internal

1 combustion SUV.

2 This vehicle will have a driving range of more  
3 than 240 miles on a single charge, with zero tailpipe  
4 emissions.

5 It is anticipated that the Model X could be  
6 produced in quantities of 10,000 to 15,000 vehicles per  
7 year starting in late 2014.

8 As of mid-March 2012, Tesla employed roughly  
9 1,500 full time and contract workers in California. Almost  
10 600 of which are engaged in manufacturing.

11 The production of the Model X will directly  
12 support over 500 additional jobs at Tesla facilities in  
13 California.

14 In closing, staff asks the Commission to support  
15 approval of Agenda Item Number 7 for a grant agreement with  
16 Tesla Motors, Inc. in the amount of \$10 million.

17 I'm available to answer any questions you may  
18 have. Additionally, I believe representatives from Tesla  
19 are also here to provide comment and answer any questions  
20 you may have for them.

21 COMMISSIONER DOUGLAS: Thank you, Charles, that's  
22 great. Are there representatives of Tesla here today? If  
23 you could come forward?

24 MR. WITT: We should introduce ourselves, I  
25 guess. My name is Daniel Witt, I'm a Legislative and

1 Policy Associate for Tesla Motors.

2 MR. TAYLOR: And I'm Mike Taylor, Vice-President  
3 of Finance for Tesla Motors. Thank you for having us.

4 COMMISSIONER DOUGLAS: Well, thank you for being  
5 here. You know, we invite you to make a comment, if you'd  
6 like to, at this point. The Commissioners may have  
7 questions as well.

8 MR. TAYLOR: Sure. So, one, I'd like to thank  
9 everybody for inviting us here, and the staff for their  
10 very diligent work on considering our proposal.

11 I do think it is helpful that, you know, too  
12 often we're portrayed in the press as only producing an  
13 electric sports care and I think that kind of misses the  
14 point of what, really, Tesla Motors is trying to do, and  
15 why I think it's important for California.

16 So, our mission has always been, since the start  
17 of the company, it started in 2003, to aggressively promote  
18 increasingly affordable electric vehicles for the masses.

19 We started out with an electric sports care  
20 because we needed, because of the technology was rather  
21 high and we needed to get a car at a higher price point to  
22 generate the margin and to generate the enthusiasm for us,  
23 as a company, that enabled us to attract additional capital  
24 into the company.

25 We were successful at doing that. The Roadster

34

1 now has -- we've produced about 2,500 of them. They're on  
2 the road right now in 35 countries in the world. And we've  
3 put about 30 million miles, all electrically driven miles,  
4 to the credit of the Tesla Roadster.

5           On the back of that success we have embarked on  
6 our next vehicle, which is the Model S Sedan, which is a  
7 five-person sedan that has a range of up to 300 miles.

8           We're actually -- Daniel and I were lucky to  
9 actually drive here all the way from Palo Alto, and used  
10 about half the capacity of the vehicle in getting here to  
11 Sacramento.

12           We have just started production of that vehicle.  
13 Starting in 2010, where we were lucky enough to have the  
14 opportunity to revitalize the former NUMMI facility in  
15 Fremont, California. So, we took over that facility and  
16 since that point we've been developing the Model S. And in  
17 the course of it we now employ -- because of the  
18 partnership with California on a number of fronts, we now  
19 employ over 3,000 people at Tesla Motors, almost, I'd say,  
20 1,600 of those are in manufacturing at our Fremont  
21 facility. So, it's been a quite success story so far.

22           We have entered production of the Model S. And  
23 while we have slowed the production ramp for mainly quality  
24 reasons, we have over 13,000 people throughout the world  
25 that have put \$5,000 or more down for that vehicle, that

1 we're rapidly trying to satisfy through our increased  
2 production.

3 We will get to our goals of 20,000 a year in  
4 2013, right, and employ another few hundred workers in that  
5 endeavor.

6 So, that leads us here to Model X and sort of why  
7 Daniel and I are here to advocate support for the grant.

8 During the course of the Model S we faced daily  
9 decisions, in fact, we're a publicly traded company, we  
10 have to evaluate each and every one of these capital  
11 decisions about what types of things we're going to in-  
12 source at our Fremont facility and what types of things  
13 we're going to keep at our suppliers.

14 One of the reasons why we liked this grant was  
15 because it is for the manufacturing capital, which myself  
16 and my staff look at on a very detailed basis to try and  
17 figure out is the cost benefit such that it makes sense to  
18 relocate that capital and those production activities, and  
19 those jobs into Fremont.

20 The grant allows -- it changes the balance of  
21 those particular decisions and allows us to in-source a  
22 bunch more jobs into California. That would be with the  
23 projected volumes of Model S, in 10,000 to 15,000 vehicles  
24 per year. We think we can add an additional 700 to perhaps  
25 more jobs into California for that particular project.

1           So, with that I'm hopeful we did a good  
2 articulation of the goals. I'm hopeful that the Commission  
3 sees it in their power to approve the grant request.

4           COMMISSIONER DOUGLAS: Well, thank you, that was  
5 a very helpful summary. If you could stay there, that  
6 would be great. And let me go to a comment from Air  
7 Resources Board, Ryan McCarthy, and then we'll go to  
8 Commissioner questions and comments.

9           MR. MC CARTHY: Hello, Ryan McCarthy with the  
10 California Air Resources Board, it's my pleasure to be here  
11 to testify on this topic and I appreciate the time.

12           The California Air Resources Board is very  
13 supportive, obviously, of zero emission vehicles. We know  
14 that commercialization of zero emission vehicles is  
15 imperative for meeting our air quality and climate change  
16 targets, and we are very supportive of Tesla's efforts to  
17 commercialize zero emission vehicles, specifically battery  
18 electric vehicles in the proposal in front of you today.

19           Tesla has the distinction, a unique distinction  
20 of being the only automaker to ever ask us to actually  
21 increase our targets under the zero emission vehicle rule,  
22 which they have done twice.

23           And I think we are in agreement that they are  
24 clearly an innovator and a pioneer in the electric vehicle  
25 space. They have delivered a form and function of electric

1 vehicles that I think most people never thought imaginable  
2 and probably still don't believe imaginable, even though  
3 these vehicles are on the road today. And I think the  
4 Model X is going to be the next embodiment of delivering on  
5 that unique vision and capability.

6 I think your support, today, of their innovative  
7 efforts will continue to help them develop this technology  
8 further, bring down the costs and really make the promise  
9 of their early model vehicles more available to the masses.  
10 Perhaps in their gen 3 vehicle, that could really be,  
11 ultimately, a game changer for the electric vehicle market,  
12 and for air quality, public health, and energy use in  
13 California.

14 I just want to -- we've heard, already, about the  
15 manufacturing and I think that's worth re-emphasizing, the  
16 fact that Tesla and a few other California companies have  
17 brought auto manufacturing back to California in the form  
18 of electric vehicles, I think that's profound.

19 I think the fact that they have located, in the  
20 high-tech hub of the world, a manufacturing facility that  
21 has re-employed former NUMMI workers, as well as hundreds  
22 of others is worth our continued support.

23 I have had the opportunity to visit that  
24 facility, both when it was a NUMMI plant, and to see early  
25 production of the Model S. I was impressed with both

1 efforts and I looked forward to visiting again in the  
2 future. And I hope the Tesla operation is at the scale  
3 that I saw for the Toyota and GM operation.

4 So with that I urge your support, hope that you  
5 will help to bring that vision to fruition. And I  
6 appreciate your time.

7 COMMISSIONER DOUGLAS: Thank you, Ryan, thanks  
8 for being here.

9 Questions or comments, Commissioners?

10 COMMISSIONER PETERMAN: Commissioners, I'll have  
11 some comments, but first let me turn to you to see if you  
12 have any questions for Tesla?

13 COMMISSIONER MC ALLISTER: Yeah. Great, yeah, I  
14 do. Just a little anecdote here, I was at the Portable  
15 Power Conference maybe 10 or 11 years ago, I believe in San  
16 Francisco, and I had been doing a lot of research on  
17 portable electronics, and I had lunch at the conference  
18 with this young, you know, newly minted engineer from  
19 Stanford, whose name I don't remember, who was working for  
20 a company he couldn't tell me about, that was -- he was  
21 really excited about, very vehement, full of zeal, and he  
22 was talking about this electric sports car he was working  
23 on. He was a -- I believe he was a mechanical engineer.  
24 And so I drove him about it and he said, yeah, we're going  
25 for the upscale sports car market, you know, wealthy folks

1 that can afford these cars. And I at that point was living  
2 in Berkeley, did not have a car and was, presumably, eating  
3 a lot of organic food. Anyway, I'm being self-deprecating.  
4 All those things are wonderful, right, sincerely.

5 But I just kind of couldn't quite get my head  
6 around it at that point. So, clearly, that company must  
7 have been Tesla. And I think the business model that he  
8 expressed, which was to go for the IP, was to develop  
9 something that has some margins, able to develop the  
10 technology sustainably and with some profit margin, I think  
11 clearly the company has been pursuing with a high degree of  
12 focus since then.

13 And I think has produced results in the  
14 marketplace, creating new technology and IP, and being able  
15 to bring that in a measured way to the marketplace, in a  
16 way that fits California's policy goals.

17 So, I see the bigger picture now, more than I  
18 might have at that point. And I think for that reason I'm  
19 supportive of this grant.

20 So, I do have a couple of questions, though. One  
21 of the -- I have a long relationship with batteries, both  
22 from developing countries, lead acid batteries in remote  
23 places, all the way through to what I was talking about  
24 before.

25 Now, the Roadster and the other models you're

1 producing, you know, give new meaning to the phrase  
2 "portable electronics."

3           And I wanted to hear a little bit more, without  
4 breaching any touchy issues, about the battery lifecycle.  
5 And also, 200 plus miles is a long way and a lot of energy  
6 and I'm just wondering sort of what your projects of the  
7 battery lifetimes and things like that might be, and sort  
8 of how you're building that component of the supply chain  
9 and the maintenance chain for all of your models going  
10 forward.

11           So, I'd be interested in sort of hearing some  
12 high level insight about that.

13           MR. TAYLOR: So, in terms of the battery life, so  
14 those of you that don't know, the battery is the most  
15 significant cost of the electric vehicle. It's something  
16 that Tesla -- we literally scour the world to find the best  
17 batteries for our cars. We have over, probably, today,  
18 2,000 different cells on test in our lab and we're  
19 continually evaluating them not just calendar life, and not  
20 just lifecycle but, you know, performance in our vehicles,  
21 and how well they do in cold temperatures, how well they do  
22 in warm temperatures, so on and so forth.

23           So, it's something that we take very seriously.  
24 There have been improvements in both -- critical to Tesla  
25 is energy density, which is the amount of energy you can

1 pack either into a particular volume of space or for a  
2 particular weight, right. Both of those we take very  
3 seriously.

4 But our customers and ourselves also take very  
5 seriously about how long these batteries are going to last  
6 in their cars.

7 So, for the Tesla Roadster we have said that the  
8 batteries will retain -- so batteries degrade over time, so  
9 batteries retain after seven to ten years of their life.  
10 It depends on how you drive the car, how aggressively you  
11 drive. But after seven or ten years they still will have  
12 60 to 65 percent of their ability to hold a charge still  
13 present in the battery.

14 That equates to over 100,000 miles for the Tesla  
15 Roadster.

16 For the Model S things have improved. We have  
17 not made public comments as to sort of how much they've  
18 improved because we are currently looking at -- we have a  
19 battery replacement option for the Roadster that allows  
20 people to purchase a battery up front, purchase the option  
21 to buy a battery up front.

22 We're going to introduce the same for the Model  
23 S, right. The calculations about battery lifecycle go into  
24 that.

25 But suffice it to say that energy density has

1 improved about eight to ten percent a year, which enables  
2 us to pack more density into a pack, so you can go a  
3 particular mile for cheaper if you need to, right.

4 And lifecycle has improved pretty significantly.  
5 So, I think the public is going to be very impressed about  
6 what we're able to do for Model S.

7 COMMISSIONER MC ALLISTER: Thanks. No, I think  
8 I'm good for now. I'd welcome Carla, who has been more  
9 involved in this, or Karen first.

10 COMMISSIONER DOUGLAS: You know, I just had a  
11 brief comment which is that I've been strongly supportive  
12 of moving in to finding ways to help support or incentivize  
13 manufacturing in technology whether it's, you know, solar  
14 panels, or electric vehicles, or other related clean energy  
15 technologies in California.

16 So, I'm really pleased to see you here today. I  
17 think that it was helpful for me to hear you talk about the  
18 kind of calculation that goes into whether you expand the  
19 capacity in Fremont or outsource a certain component or a  
20 certain aspect of the manufacturing.

21 We certainly -- you know, over the past couple of  
22 years created the Clean Energy Business Financing Program,  
23 which has typically been financing -- been providing low-  
24 interest loans for photovoltaic production, although it was  
25 open to other types of technology when we did that

1 solicitation.

2           The AB 118 program has moved into manufacturing  
3 and that's been continued as a component, among many, in  
4 the investment plan.

5           So, I'm happy to see you there. You know, one of  
6 these days maybe I'd love to see the facility, myself, as  
7 Ryan as. Although, you know, sometimes it's hard to get  
8 out of the office.

9           But in any case, I certainly wish you success.

10           And let's go on to Commissioner Peterman.

11           COMMISSIONER PETERMAN: Thank you, and thank you  
12 for highlighting the various ways in which the Commission  
13 has tried to support both those dual goals of a cleaner  
14 environment, as well as business.

15           I'm supportive of this project and this grant. I  
16 think it is a true investment in cleaner air, reduction in  
17 greenhouse gases, as well as the California economy.

18           And I particularly applaud you for your continued  
19 efforts to diversify the vehicle fleet. I think we want to  
20 envision a world in which we're able to drive the variety  
21 of cars that we do now, but just on cleaner fuels. And so  
22 the introduction of the sedan and now the SUV model I think  
23 will allow for further penetration of this technology and  
24 broader mass adoption.

25           The further manufacturing of EVs will also help

1 the State in reaching its goals for 1.5 million electric  
2 vehicles on the road by 2025.

3 Governor Brown's Executive Order earlier this  
4 year called for that and this is one of those initiatives  
5 that will help the State move forward.

6 I'll note that we don't take any investments of  
7 public funds lightly and that being said, you know, I  
8 support this investment because it's leveraging other  
9 dollars as well.

10 I believe Tesla is providing \$50 million or so in  
11 match funding for this, as well as it's leveraging the  
12 existing investments in your manufacturing line, and  
13 assembly line for the Model S.

14 And I look forward to these cars becoming cheaper  
15 over time, to the point where even some of us government  
16 employees can afford them.

17 But I applaud your efforts and I vote -- I would  
18 propose we hear this item.

19 COMMISSIONER DOUGLAS: Great, do we have a  
20 motion?

21 COMMISSIONER PETERMAN: Yeah, I'll move Item  
22 Number 7.

23 COMMISSIONER MC ALLISTER: I'll second.

24 COMMISSIONER DOUGLAS: All in favor?

25 (Ayes.)

1                   COMMISSIONER DOUGLAS: The item is approved  
2 unanimately. Thank you.

3                   MR. TAYLOR: Thank you.

4                   COMMISSIONER DOUGLAS: Item 8, Alternative and  
5 Renewable Vehicle Buy Down Reservations; possible approval  
6 of a total of \$2,548,000 in vehicle buy down incentive  
7 reservations.

8                   Andre.

9                   MR. FREEMAN: Good afternoon Commissioners, my  
10 name is Andre Freeman. I'm part of the Fuels and  
11 Transportation Division's Fuels and Technologies Office.

12                   Today I'll be seeking approval of incentive  
13 reservations for 162 propane vehicles and 18 natural gas  
14 vehicles funded through the Alternative Renewable Fuels and  
15 Vehicle Technology Program.

16                   As you know, the Natural Gas and Propane Vehicle  
17 Buy Down Program is designed to promote the purchase of  
18 alternative-fueled vehicles to replace the aging gasoline  
19 and diesel fleet.

20                   This program provides incentives for consumers to  
21 adopt technologies which provide both environmental and  
22 economic benefits to the State of California.

23                   You may notice a few familiar company names, as  
24 well as the presence of Natural Gas Funding, which I  
25 previously mentioned had run out.

1           As part of our reservation process dealerships  
2 have 120 days to utilize their reservations or they will  
3 revert back to the program fund.

4           Now that we're several months into the program  
5 we're beginning to see this and 45 of the propane bus  
6 reservations that are before you today are incentives have  
7 expired and the dealerships have requested new reservations  
8 for.

9           Additionally, the 18 natural gas vehicles are  
10 ones that went utilized before and are being allocated to  
11 dealerships that have previously used up the entirety of  
12 their previous allotment, so we expect those to go pretty  
13 quickly here, especially with the demand for natural gas  
14 vehicles.

15           I just wanted to mention about Commissioner  
16 McAllister's comment on Item Number 6 that, at Commissioner  
17 Peterman's request, we have met with our natural gas  
18 stakeholders, which we actually met with yesterday to talk  
19 about infrastructure and vehicle issues, and we are in the  
20 process of setting up a meeting with our propane industry  
21 stakeholders in the next week or two to figure out better  
22 ways to get the funding out and, you know, determine what's  
23 the best way to support the industry over the next few  
24 years here through the investment plan.

25           COMMISSIONER MC ALLISTER: Great, thanks very

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1 much for that.

2 MR. FREEMAN: That's all I have so I'm available  
3 for any questions that you may have.

4 COMMISSIONER DOUGLAS: Thank you. Questions or  
5 comments?

6 COMMISSIONER MC ALLISTER: No, I don't have any  
7 questions. I think, you know, I got an independent  
8 briefing from staff on this and I'm comfortable with these  
9 incentives.

10 COMMISSIONER PETERMAN: I think this is another  
11 example of staff taking initiative to make sure that the  
12 funds are spent and that funds are spent in a timely  
13 manner.

14 I would encourage staff, as you know, to continue  
15 to reach out to some of the recipients of the funds,  
16 especially those who have since returned them, to  
17 understand more why they're not able to use the incentives  
18 in a timely manner.

19 But I'm glad we have opportunities to redirect  
20 them. And again, this is just an example of diversifying  
21 our fleet and providing options for those, particularly,  
22 who would like to use this fuel resource, so I'm  
23 supportive.

24 COMMISSIONER DOUGLAS: Great. Do we have a  
25 motion?

1 COMMISSIONER PETERMAN: Yeah, I'll move Item  
2 Number 8.

3 COMMISSIONER MC ALLISTER: And I'll second.

4 COMMISSIONER DOUGLAS: All in favor?

5 (Ayes.)

6 COMMISSIONER DOUGLAS: The item passes  
7 unanimously, thank you.

8 Item 9, Valley Garbage and Rubbish Company,  
9 Incorporated; possible approval of Agreement ARV-12-009 for  
10 a grant of \$300,000 to Valley Garbage and Rubbish Company,  
11 Incorporated to expand the availability of compressed  
12 natural gas infrastructure.

13 Darren.

14 MR. NGUYEN: Good morning Commissioners. I'm  
15 Darren Nguyen from the Emerging Fuels and Technologies  
16 Office. I'm here to seek approval of a grant for Valley  
17 Garbage and Rubbish Company to construct a CNG fueling  
18 station to support its existing fleet of 27 private CNG-  
19 powered solid waste collection vehicles in the City of  
20 Santa Maria, in Santa Barbara County.

21 The total funding for this amount -- for this  
22 project will be \$300,000 and the project team will provide  
23 \$1,025,350 in match funds.

24 Currently, there's a lack of fueling within the  
25 region and the closest fueling station is 25 miles away.

1 The fueling station will provide a public access and  
2 convenient source of fuel to local and regional goods  
3 movement fleets along the Highway 101 corridor.

4 This critical infrastructure project will provide  
5 solutions to overcome significant refueling barrier that  
6 has hindered the development and wide spread use of natural  
7 gas a transportation fuel in the Santa Barbara region.

8 It will also demonstrate the feasibility of  
9 constructing, owning, and operating a public access station  
10 to supply low-carbon fuel for transportation.

11 The economic benefits will impact the immediate  
12 and long-term future by injecting capital into the local  
13 economy and contributing the ongoing fuel tax revenues.

14 It will also provide an annual displacement of  
15 over 245,000 gallons of diesel, more than 2,400 metric tons  
16 of GHG emissions, and over 19 tons of LX emissions.

17 Thank you for your consideration of this item. I  
18 would like to introduce Chuck White from Waste Management  
19 and he's here to answer any questions you may have.

20 MR. WHITE: Thank you very much, Chuck White with  
21 Waste Management. Valley Garbage and Refuse is a wholly  
22 owned subsidiary of USA Waste of California, which is a  
23 wholly owned subsidiary of Waste Management.

24 I could have brought a picture showing our  
25 corporate structure here in California and you'd see a

1 diagram of about 60 boxes, and this is one of the 60 boxes  
2 there. So, just to clarify, it is a wholly owned  
3 subsidiary of Waste Management, and that's the legal entity  
4 which will be a recipient of the grant, we hope.

5 We really appreciate the opportunity to receive  
6 support from the Energy Commission to expand our natural  
7 gas fleet and also provide public access.

8 As Darren mentioned, this is in the 101 corridor.  
9 The only other natural gas fueling stations is a  
10 privately -- it's not public access, within 25 miles. This  
11 is really on the 101 corridor so it will really provide a  
12 key stopping point for natural gas vehicles traversing  
13 between Northern and Southern California. And we're  
14 certainly doing everything we can to make sure people are  
15 aware of the existence of this station and make sure that  
16 it is available for the public to take advantage of, as  
17 well as our own expanding natural gas fleet that is really  
18 made possible with these sorts of grants.

19 So, we appreciate it and I'm happy to answer any  
20 questions, if I can.

21 COMMISSIONER PETERMAN: Mr. White, thank you for  
22 being here, and I appreciate your comment about taking  
23 efforts to do outreach to consumers so that they know that  
24 a station is available.

25 The public access component of this project is

1 one of the parts which is particularly exciting to me and  
2 to the Energy Commission. And we would encourage you to  
3 take those efforts to make folks aware, and we will do  
4 through our channels as well.

5 So, one question I have and I think some of my  
6 co-Commissioners may have this as well, is what's the  
7 difference between garbage and rubbish?

8 MR. WHITE: Darren mentioned this to me and I am  
9 somewhat prepped for that.

10 COMMISSIONER PETERMAN: Okay.

11 MR. WHITE: There is no difference between  
12 rubbish and garbage.

13 COMMISSIONER PETERMAN: We read every line, at  
14 least the name of the company.

15 MR. WHITE: This is a situation where Waste  
16 Management has gone in and purchased a prior operating  
17 corporation or company and maintained that legal entity.  
18 We didn't have anything to do with naming it, it was  
19 basically the company that was operating in that area  
20 before we purchased it. It's one in the same.

21 I think if it was a company getting started today  
22 it would say "refuse and recycling" rather than garbage and  
23 refuse. In fact, we might probably change it to that were  
24 it not the problems with going to all the modifications to  
25 our corporate structure in California.

1           But it is a wholly owned subsidiary of Waste  
2 Management.

3           COMMISSIONER PETERMAN: Thank you.  
4 Commissioners, other questions?

5           MR. WHITE: One more comment I did have, yeah,  
6 we're a member of the California Natural Gas Vehicle  
7 Coalition, that publishes a booklet every year of all the  
8 fueling stations for natural as in California and we'll  
9 make sure we get this fueling station in there, and other  
10 outreach efforts as well.

11           COMMISSIONER MC ALLISTER: Great, thanks. I'm  
12 thinking maybe it was founded by a Brit or something.

13           MR. WHITE: It could very well be.

14           COMMISSIONER MC ALLISTER: So, I was going to ask  
15 that question, but I'll ask another one. So, I'm wondering  
16 about the rates issue, sort of how -- on the public access  
17 side is there -- and this maybe just shows, you know, my  
18 lack of engagement in this particular issue.

19           But as far as how much a refuel costs for a  
20 natural gas vehicle that's coming off the 101 to refuel,  
21 you know, probably their own vehicle, are there -- where do  
22 you go to get rates approved or sort of decide what to  
23 charge these folks?

24           MR. WHITE: That's a good question and I didn't  
25 come prepared. I was prepared for the refuse and garbage

1 question, but not for the rates issue, but I can certainly  
2 get back to you on that.

3 COMMISSIONER MC ALLISTER: It would be  
4 interesting to know, actually. There may be infrastructure  
5 that I'm not aware about and a whole process to decide on  
6 that, but I just would like to know that.

7 MR. WHITE: We're going to try to put a price  
8 that will cover our costs, but I think generally you'll  
9 find that the public access stations owned by Waste  
10 Management are extremely competitive, really priced in  
11 terms of what you normally would see on the market for  
12 public access stations.

13 COMMISSIONER MC ALLISTER: And you know the price  
14 of natural gas is notoriously fickle, so sort of how that  
15 plays out going forward for public access -- having said  
16 that, I absolutely agree with Commissioner Peterman that  
17 that's a great aspect of this project, that public access  
18 is essential.

19 And particularly for certain kinds of vehicles  
20 it's something that we have to build out, and so it's  
21 really great to see this progress, so thanks.

22 MR. WHITE: Thank you.

23 COMMISSIONER DOUGLAS: All right, well thank you.  
24 I thought I was going to learn something about the  
25 difference between garbage and rubbish, but instead I

1 learned something, you know, about the corporate structure  
2 of Waste Management, so there's --

3 MR. WHITE: Well, I wish I could say they're a  
4 difference, but they're a complete synonym for each other,  
5 rubbish and garbage.

6 COMMISSIONER DOUGLAS: Super, all right.

7 COMMISSIONER PETERMAN: It's not an official --

8 MR. WHITE: I might have to find the original  
9 owner of that operation to find out what he was thinking,  
10 or she. Thanks.

11 COMMISSIONER DOUGLAS: Well, thank you Chuck,  
12 thanks for being here. So, do we have a motion on Item 9?

13 COMMISSIONER PETERMAN: I will move Item 9.

14 COMMISSIONER MC ALLISTER: I'll second.

15 COMMISSIONER DOUGLAS: All in favor?

16 (Ayes.)

17 COMMISSIONER DOUGLAS: The item is approved  
18 unanimously, thank you.

19 Item 10, Quallion LLC; possible approval of  
20 agreement ARV-12-010 for a grant of \$2,230,595 to Quallion  
21 LLC to expand its manufacturing capacity for high volume  
22 integration of battery management system electronics into  
23 electric vehicle batteries.

24 Darren.

25 MR. NGUYEN: Good morning, again. I'm Darren

1 Nguyen from the Emerging Fuels and Technologies Office here  
2 seeking the approval of a grant for Quallion to expand its  
3 manufacturing capabilities to design, produce, and test  
4 advanced lithium ion battery measuring system, or BMS  
5 electronics.

6 Quallion will incorporate these electronics into  
7 batteries to meet the growing demands for electric vehicle  
8 applications.

9 This project is located in the City of Sylmar, in  
10 L.A. County. The project team will provide \$2,235,863 in  
11 match funds.

12 Currently, the facilities are inadequate to  
13 accommodate the increased workload Quallion anticipates  
14 from electric vehicle projects and the large, high-volume  
15 equipment needed to support these projects.

16 This project will expand the company's production  
17 capacity for larger vehicle systems. The BMS is a  
18 necessary component to the battery and to the electric  
19 vehicle. The battery cannot charge or discharge without  
20 the BMS to keep it operating within certain safety  
21 parameters.

22 This funding will support the expansion of  
23 Quallion's electronics workshop into a larger space, with  
24 enhanced equipment for higher volume production and  
25 integration.

1           It will help Quallion transition its lithium ion  
2 battery applications into broader markets for hybrid and  
3 electric vehicles.

4           This project will provide significant positive  
5 economic benefits in a low-income area. Quallion  
6 anticipates that the electronics workshop can support 20  
7 direct full time employment jobs and 40 indirect jobs as a  
8 result of the effect of manufacturing jobs.

9           This project will also support California's goals  
10 to expand the deployment of clean transportation  
11 technologies and ensuring there is local manufacturing base  
12 for these technologies.

13           Thank you for your consideration of this item.

14 Alex Fay, from Quallion, would like to speak.

15           MR. FAY: Thank you, Darren.

16           COMMISSIONER DOUGLAS: Go ahead.

17           MR. FAY: Commissioners, thank you for having me  
18 and good morning. Like Darren said, my name's Alex Fay,  
19 I'm the Business Development Manager at Quallion.

20           Quallion is a veteran-owned small business in the  
21 Sylmar area of Los Angeles. That's a low-income area and a  
22 State enterprise zone.

23           We employ about 170 people in a variety of jobs,  
24 from PhD chemists, electrical engineers, mechanical  
25 engineers, down to assembly line technicians that come into

1 us with a high school education.

2 On behalf of the men and women of Quallion who  
3 come to work every day to be part of a great technology  
4 company, but also to put food on the table and put their  
5 kids through college, I want to thank you for your support  
6 on this award and previously to help us grow our company.

7 We are a small company and we take big capital  
8 investments very carefully, and so the support from the  
9 Commission to help us leverage our own investments and  
10 other Federal funding is really key to growing our company.

11 A little bit about Quallion, we manufacture  
12 batteries for advanced applications, niche markets,  
13 aerospace, medical devices, defense applications, and  
14 moving more into the transportation projects.

15 What all those things have in common is the  
16 batteries have to meet very rigorous performance  
17 requirements, much more so than what you see in you cell  
18 phone or your laptop.

19 But our company's history comes from Japan, where  
20 the lithium ion industry was borne to provide batteries for  
21 Walkman's, and cell phones and laptops in the early  
22 nineties.

23 The company was founded by a serial entrepreneur  
24 named Alfred Mann, who has a number of medical device  
25 companies, and he found there was a shortage of capable

1 batteries to support his medical devices, and so he had the  
2 foresight to go to Japan and essentially poach some of the  
3 brightest battery scientists from the Japanese battery  
4 industry, and bring them to California and start Quallion  
5 as an R&D center.

6           The company's grown out of that and is now in  
7 full production of medical device batteries, both for  
8 implantable devices and external devices. We make a  
9 battery that will extend the life of a heart transplant  
10 patient until they can come up to the top of a transplant  
11 list.

12           Leveraging that medical success, we moved into  
13 satellite production and developed satellite batteries that  
14 are able to power a satellite through over 100,000 charge  
15 and discharge cycles. That's over ten years orbiting the  
16 earth at a low-earth orbit. And these are for applications  
17 such as remote sensing for scientific missions, for  
18 national security, and also for communications  
19 technologies.

20           Our satellite technologies have been vetting and  
21 funded by the Federal government to the tune of \$60 million  
22 to develop the infrastructure to build a vertically  
23 integrated process, where we can control the entire  
24 production line, from the raw materials, the lithium  
25 powders, and binders, and slurries that go into the

1 batteries, all the way through the finished product at a  
2 California facility.

3 And the Federal government's interested in making  
4 sure we have a secure supply of all those critical  
5 materials.

6 The benefit here is that we can use those same  
7 facilities to produce components for vehicle batteries and  
8 that's what we intend to do.

9 So, building on those advanced technologies that  
10 pushed our intellectual property and our manufacturing know  
11 how, we're really looking at new markets.

12 The challenges of a small company, we don't have  
13 the capabilities, now, to produce at scale to be cost-  
14 effective for vehicle applications. And that's where this  
15 money comes in and can help change that.

16 By supporting the BMS workshop we'll be able to  
17 integrate battery management systems with our batteries,  
18 design them, test them at a much higher rate and also  
19 safely deal with higher voltage battery management systems  
20 like those used in electric vehicles.

21 The BMS is a critical function, as Darren  
22 mentioned. It's the computer, it's the brain of the  
23 battery. It's a series of circuit boards and sensors that  
24 monitors voltage, current, temperature and other parameters  
25 in the battery to make sure it's operating safely.

1           A lithium ion battery is about as reactive as a  
2 bomb and when they blow up, bad things happen.

3           So the battery management system's primary job is  
4 to ensure safety.

5           From our background in mission-critical  
6 applications for the military and medical devices, we take  
7 that very seriously. So adding enhanced safety features  
8 into electric vehicles is critical because I think, as  
9 anyone here would agree, a big catastrophic fire on the  
10 freeway would probably drive a stake through the heart of  
11 the electric vehicle industry.

12           And they also improve performance. Most electric  
13 vehicles include a significant buffer capacity that is  
14 never used in order to ensure safety and extend life.  
15 Sometimes this is 40 to 50 percent of the entire battery.  
16 So, if you have a more advanced battery management system  
17 that can have smaller margins of error, you can reduce that  
18 buffer zone and essentially get much more performance, more  
19 range out of the same size battery.

20           This brings down battery cost, battery weight,  
21 and ultimately makes electric vehicles much more  
22 attractive.

23           Finally, to close, on a personal note, as a  
24 lifelong Californian and as a plug-in vehicle driver, I  
25 think it's great that my government, our government is

1 investing in these technologies to make our State a cleaner  
2 and greener place, and also has the wisdom to support  
3 manufacturing to ensure that our State benefits  
4 economically from the growing industry.

5 Thank you.

6 COMMISSIONER DOUGLAS: Thank you. Questions or  
7 comments, Commissioners?

8 COMMISSIONER PETERMAN: Yeah, I'll just comment.  
9 Alex, thank you very much for that further background on  
10 Quallion, and the history of the company, and how that's  
11 gotten the company to this point.

12 As you noted, the AB 118 Program, the Commission  
13 has supported the company previously and it is good to see  
14 your advancement and your desire to further scale your work  
15 in this area.

16 You know, I am supportive of this investment for  
17 all of the reasons that Alex has laid out in terms of both  
18 improving the quality, and the safety, and the availability  
19 of electric vehicles in California.

20 MR. FAY: I might add there's a lot of synergies  
21 here between the two programs. They're distinct, but  
22 essentially our current-funded program is building cells  
23 and modules, and then this program will come on top of that  
24 with the battery management system, so that with this  
25 production facility we'll be able to deliver a complete

1 battery.

2           And I think there's also potential synergies with  
3 other CEC companies, other ones today, Tesla, Zero, we  
4 talked to Boulder Electric Vehicles about how we might be  
5 able to use our products as demonstrations in their  
6 vehicles. A battery's not worth much on its own, you need  
7 a device that it's going to power.

8           And I think that's a great story that we can make  
9 an all-California made vehicle and battery.

10           COMMISSIONER MC ALLISTER: Well, you partially  
11 answered my question, actually. I was kind of wondering  
12 about whether, you know, are you producing the whole  
13 battery assembly with the charge device, the charging  
14 assembly as a whole, or are you also looking at selling the  
15 charging assembly to sort of put on other folks' batteries.  
16 I guess maybe that's a business thing you can't talk about.

17           But trying to get a sense of what your market  
18 niche that you're aiming at is. You know, it sounds like a  
19 fairly small company and producing batteries is a fairly  
20 industrial process, and so I'm kind of, you know interested  
21 in hearing about how you've managed to sort of keep it  
22 small and focused, but at the same time doing the high  
23 quality that you're obviously doing if you're getting  
24 batteries into satellites.

25           MR. FAY: Sure.

1                   COMMISSIONER MC ALLISTER:  So maybe you could  
2 talk about that a little bit.

3                   MR. FAY:  Yeah, so just as you heard earlier from  
4 Tesla focusing on a niche to get started, they're just  
5 focusing on high-end vehicles where the margins are high  
6 enough to support continued R&D and attract more  
7 investment, we've had a similar strategy focusing on higher  
8 margin products in medical devices, in satellites, and  
9 other military projects.

10                  COMMISSIONER MC ALLISTER:  Uh-hum.

11                  MR. FAY:  And what we see is there's a lot of  
12 synergy in similar applications.  So, I think the most  
13 immediate customers for the products that will come off  
14 this line will be our battery modules that are going into  
15 military ground vehicles and military renewable energy  
16 storage projects.

17                  These are perfect analogs for the kind of things  
18 we'd like to see in the commercial grid and on our  
19 commercial streets, but the price point just doesn't pan  
20 out to do full-scale adoption here, stateside.

21                  But when you're in the deserts in Afghanistan and  
22 the full-in price of fuel is about \$500 a gallon, not  
23 including the cost in life of transporting that through  
24 fuel convoys, the military puts a very high premium on fuel  
25 efficiency.

1           So to that end they've supported R&D to develop  
2 batteries to store renewable energy that's generated from  
3 distributed, solar and wind resources. We've build  
4 batteries for that, as well as projects to develop vehicles  
5 that can export power to recharge devices in the field.  
6 So, essentially function as nodes on a self-contained  
7 micro-grid.

8           And so all those projects, I think, are the first  
9 early adopters here that can support the technology at its  
10 current scale.

11           Based on that, proving out the technology and  
12 helping support our company's decision that this is a  
13 market that's real and exists, we can move ahead into  
14 larger production. And that would require further  
15 enhancement of our facilities.

16           Like you said, a battery factory that you might  
17 see Japan, Panasonic, or Sanyo, or any of these guys,  
18 that's hundreds of millions of dollars, it's the size of a  
19 football field and it runs day and night. We're not at  
20 that scale.

21           We may never be at that scale but I think to your  
22 point, because we're vertically integrated we can find  
23 points in the value chain that make sense whether we own  
24 it, or whether we outsource it, or whether we sell it.

25           So in many cases our customers are also our

1 competitors in some cases. And depending on the project we  
2 might sell these DMS technologies, or license them to a  
3 company like Tesla, or Zero, or someone else so that they  
4 can use their manufacturing expertise and their scale to  
5 take advantage of our intellectual property.

6 In other cases, in our niche markets we would  
7 probably use those ourselves to improve the performance of  
8 our own batteries.

9 COMMISSIONER MC ALLISTER: Right. Great, thanks  
10 for that, I really appreciate your level of knowledge and  
11 articulateness on these issues. I think, you know,  
12 batteries are a fascination of mine, for sure. And I will  
13 resist the temptation to talk about, you know your charging  
14 algorithms and, you know, how many FETs you're using and  
15 things like that.

16 MR. FAY: We can do that later.

17 COMMISSIONER PETERMAN: Probably get a briefing  
18 schedule for you.

19 COMMISSIONER MC ALLISTER: We can talk about that  
20 offline, I'm sure.

21 I would -- you know, this is a fascinating topic,  
22 it's one of these things that there's not that much  
23 information out there about and we rely on batteries every  
24 day and never see them, really.

25 But there's a nice little euphemism for the --

1 like lithium ion batteries are highly exothermic in the  
2 charge/discharge, right, so they produce a lot of heat, and  
3 you have to get rid of that heat. That's part of the  
4 limitations of those batteries.

5           And I got a letter -- well, in the course of my  
6 research I saw a letter talking about this, you know, one  
7 explosion in a laptop on somebody's lap, or in a cell phone  
8 while you've got up to your ear is just, you know, a  
9 nightmare for the companies, right, so they really want to  
10 avoid that.

11           And the term that they use for it is rapid  
12 deconstruction.

13           MR. FAY: We have another euphemism, thermal  
14 runaway.

15           COMMISSIONER MC ALLISTER: There you go, yes,  
16 exactly.

17           MR. FAY: But, basically, you don't want to  
18 nearby when one of these goes off.

19           COMMISSIONER MC ALLISTER: It sounds exciting.

20           MR. FAY: We've done some testing in our plant,  
21 we blow up a battery every once in a while and it's always  
22 the most fun, all the engineers get together and like to  
23 watch it.

24           COMMISSIONER MC ALLISTER: Yeah, I bet.

25           MR. FAY: We'll invite you to come down next to.

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1           COMMISSIONER MC ALLISTER:  Yeah, I'd love.  I  
2 spend a lot of time in Southern California, so it's not  
3 that far away.

4           COMMISSIONER PETERMAN:  And, Commissioners, I'd  
5 also like to add I participate in a number of public  
6 transportation energy forums and Quallion, and Mr. Fay in  
7 particular, has been very active on panels, communicating  
8 with a variety of stakeholders.

9           And that's the same for Chuck White, who was here  
10 earlier, and folks who will be presenting, companies who  
11 will be here for further items related to the  
12 transportation program, and that's greatly appreciated.

13           I know you all are very busy growing your  
14 companies and oftentimes you don't get to hear from those  
15 with the technical expertise, and I appreciate the efforts  
16 that Quallion has taken to communicate with communities,  
17 with various levels of government, with our environmental  
18 stakeholders and helping all parties to understand these  
19 complex and exciting technologies, as Commissioner  
20 McAllister has noted.

21           So, thank you for your engagement and look  
22 forward to continued engagement by Quallion, as well as  
23 others who are here with us today.

24           MR. FAY:  Sure, whenever there's an opportunity  
25 for us to speak directly to policymakers and make sure they

1 understand the technology and the market forces that are  
2 driving that, whether they're good, bad or indifferent, we  
3 like to take that opportunity. And the world of batteries,  
4 it's not all rosy. There's a lot of battery companies that  
5 are going out of business because they're over-built and  
6 the demand isn't quite there yet. So, you know, it's  
7 important to know all these things and we're happy to be  
8 that resources for the State.

9           COMMISSIONER MC ALLISTER: I really appreciate  
10 that. I did a project in Bangladesh once, this is maybe a  
11 little bit of a tangent, but batteries are something that  
12 are really behind the scenes and we kind of take the  
13 ability to store energy for granted, but it's actually  
14 really expensive to do that. And it's something that in  
15 the current reality in California we're really looking at  
16 developing the technologies for.

17           So, some of these storage applications and, you  
18 know, Smart Grid-related applications and all that I think  
19 are really relevant here, whether it's in the  
20 transportation realm or the other realms that we work in.

21           But, you know, I looked at the lead acid battery  
22 supply chain, really, in Bangladesh for Remote Power, and  
23 there were children, essentially, in unventilated rooms,  
24 replacing individual plates in lead acid batteries, with no  
25 ventilation, with no masks, you know, back there because

1 there was a need for this power and, obviously a very  
2 different setting, a developing country, very poor.

3 But that impacted me tremendously about how much  
4 technology can improve a situation. If we can improve that  
5 supply chain, make it affordable, make it safe, make it  
6 reliable that can have an impact all of the world. It's  
7 not just the high techs market in California, it's actually  
8 really important much beyond that because there are  
9 billions of people who miniscule quantities of energy  
10 compared to what we do here, but could really benefit from  
11 advanced batteries that are affordable.

12 So, I think, you know, it's part and parcel of --  
13 not that California, not that that's front and center for  
14 us here, in our policy discussions today, but I think there  
15 is a global view of this that elevates its importance.

16 So, thanks again for coming in, I appreciate it.

17 MR. FAY: From our perspective, I think the  
18 investment that the Federal government and the State  
19 government here make to improve these technologies is going  
20 to give us great expert opportunities when the rest of the  
21 world catches up and has growing demand for these things,  
22 and we're going to be in a great position to take advantage  
23 of that as a result of these investments.

24 COMMISSIONER DOUGLAS: That's great. So, do we  
25 have a motion on this item?

1 COMMISSIONER MC ALLISTER: I will move Item 10.

2 COMMISSIONER PETERMAN: I'll second.

3 COMMISSIONER DOUGLAS: All in favor?

4 (Ayes.)

5 COMMISSIONER DOUGLAS: Item 10 is approved, so  
6 thank you, thank you very much for being here.

7 Item 11, Zero Motorcycles, Incorporated; possible  
8 approval of Agreement ARV-12-006 for a grant of \$1,815,123  
9 to Zero Motorcycles to expand the company's full electric  
10 motorcycle production capacity in scale with systematic  
11 redesign and manufacturing line improvements.

12 Jared.

13 MR. CACHCO: Good day, Commissioners. My name is  
14 Jared Cachco from the Emerging Fuels and Technologies  
15 Office.

16 Before we begin I'd like to note a typographical  
17 error that was sent out on the agenda notice. The correct  
18 amount of funding for the grant should read \$1,815,123.  
19 This amount has been announced previously in the notice of  
20 proposed awards for the corresponding solicitations and is  
21 on record here at the Commission.

22 I'm here to ask approval for a grant to Zero  
23 Motorcycles for their project title, "Strategic Expansion  
24 of Volume Manufacturing Capacity for Electric Motorcycle  
25 Production Project."

1           Zero Motorcycles Designs manufactures and sells  
2 high-performance electric motorcycles, based in Scotts  
3 Valley, both the manufacturing facilities and jobs reside  
4 here in California.

5           They plan to expand their production capacity in  
6 anticipation of their model year 2014 products. Zero  
7 Motorcycles estimates they can quadruple their  
8 manufacturing capacity with our funding and have matched  
9 the grant with \$1.8 million of their own.

10           The project will advance the manufacturing  
11 techniques used to produce electric motorcycles today and  
12 it is an unique opportunity to expand green tech  
13 manufacturing on the Central Coast.

14           California manufacturing allows Zero Motorcycles  
15 to achieve high quality and better process control and this  
16 will keep the competitive advantage of a skilled labor  
17 force.

18           At least a dozen direct jobs will be created,  
19 adding to the 80 individuals Zero Motorcycles currently  
20 employs. These new jobs will be mostly manufacturing jobs,  
21 including technicians and mechanics.

22           This project will help a small California start  
23 up grow to a more established manufacturer of alternative  
24 energy vehicles, providing a platform dramatically  
25 increasing the production capacity of efficient and

1 practical electric motorcycles.

2 Staff requests the Commission's support and  
3 approval of this project.

4 And Jay Friedland from Zero Motorcycles is here,  
5 as well, to say a few comments and answer any questions you  
6 might have.

7 Thank you for your consideration.

8 COMMISSIONER DOUGLAS: Great. Well, welcome and  
9 we'd love to hear from you.

10 MR. FRIEDLAND: Thanks. Hi, I'm Jay Friedland,  
11 I'm the Vice-President of Strategy and Sustainability for  
12 Zero Motorcycles.

13 I want to thank the Commissioners for all your  
14 support and for hearing this particular item.

15 Zero started in 2006, in a classic kind of garage  
16 scenario. The first run of motorcycles was 24 motorcycles  
17 that were hand-built, hand-welded and hand-built. And two  
18 years ago we grew to about 55 employees and now we're about  
19 80 employees.

20 So, we're a little smaller than Tesla, but I  
21 think our customers are no less excited about the product  
22 which is, I think, one of the really, really interesting  
23 thing about this part of the market.

24 Electric motorcycles have actually seemed to be  
25 taking the market faster than electric vehicles, you know,

1 on the whole and I think that's because the parity in terms  
2 of performance and in terms of the expectations of the  
3 consumers is quickly, you know, sort of really, really  
4 matching.

5           And so we've sold over 2,000 vehicles so far, so  
6 that's a pretty exciting number for us. And these are  
7 fully freeway-capable vehicles. In fact our latest models  
8 that we just announced last week have 137 miles of range,  
9 up to 137 miles of range and top speeds of 95 miles an  
10 hour, although we would not recommend that people drive  
11 those on State highways, et cetera.

12           They're true zero emission vehicles and they  
13 impact, as Tom Turrentine likes to say, E-VMT, so electric  
14 vehicle models traveled. And, you know, what we're doing  
15 is really thousands of miles per vehicle per year is  
16 actually be replaced, so petroleum, GHG being replaced with  
17 these vehicles.

18           The Energy Commission's been incredibly  
19 supportive of our company. You know, we really got to this  
20 efficiency and power in the latest model leveraging a CEC  
21 grant that was basically approved almost exactly two years  
22 ago at an October business meeting in 2010.

23           That grant basically funded the research and  
24 development for our power train which, again, last week was  
25 introduced, and that power train is literally twice the

1 power of our previous model year. So, from 2012 model year  
2 to 2013 model we doubled the power to over 54 horsepower.

3 And again, so if you're a motorcycle rider,  
4 that's the equivalent of sort of at least a 500 cc class  
5 motorcycle and that's really, really, again, compelling for  
6 consumers. And that's really where we want to be, we want  
7 consumers buying these products.

8 The other thing that's really exciting is that  
9 that project created eight jobs and that team is in place  
10 and continuing to innovate. And it's engineers and high-  
11 quality, high-paying jobs, so really created a great set of  
12 jobs. And that team, again, like I said, is in place and  
13 growing.

14 As I said, in the process we went from 55  
15 employees to 80 employees. So, we believe that the CEC  
16 grant really actually helped our entire company grow to the  
17 point where it's at.

18 So again, we really want to just thank you for  
19 your past support and look forward to being able to  
20 quadruple our capacity and grow from about a thousand  
21 motorcycles a year, as what our capacity is today to,  
22 again, we'll get to 4,000 motorcycles a year which will  
23 really, again, have a significant impact.

24 COMMISSIONER DOUGLAS: Well, thank you. Thanks  
25 for being here. I know we've probably all got questions

1 so --

2 COMMISSIONER PETERMAN: Well, I'll just start and  
3 say Jay is another enthusiastic and active participant in  
4 clean energy education, and advocacy and awareness, and  
5 good to see you in this different hat.

6 And I'd offer the same comments that I offered  
7 when we considered the Tesla grant, and that these vehicles  
8 will help the State have cleaner air, lower greenhouse  
9 gases, provides manufacturing jobs, and really is moving  
10 the State in the direction which we'd like to go.

11 And appreciate the commitment that you have made  
12 to California and to the zero emission space. And I'm  
13 supportive, highly supportive of this grant.

14 COMMISSIONER MC ALLISTER: I don't have any  
15 battery-specific questions. But I am wondering how someone  
16 might chop one of your motorcycles?

17 MR. FRIEDLAND: There's actually -- it turns out  
18 there's actually a company down in Southern California  
19 called Hollywood Electrics, that likes to customize our  
20 motorcycles, and they have been doing this now, they've  
21 been a dealer now for about three years. And they have  
22 done Café Racers, they've done a variety of different  
23 things with our platform, so it's kind of interesting.

24 And to address your battery question, we actually  
25 have an interesting fact about our batteries which is we

1 have the highest watt hours per liter, so what I want to  
2 say is volume metric efficiency. Because, basically, you  
3 have to pack all those kilowatt hours between your legs  
4 when you're right and you also -- it's very important, it's  
5 between your legs so not only your -- you're sitting on it,  
6 but you really -- it's between your legs so it's very, very  
7 important that the technology's safe.

8           So, on our current model we have 11.4 kilowatt  
9 hours, you know, in the frame of the motorcycle. So, if  
10 you think about that, that's almost half of a Nissan Leaf  
11 inside -- inside this very, very small-framed electric,  
12 very light-weight electric motorcycle. So, we've really  
13 pushed the envelope in terms of being able to get to that  
14 volume metric efficiency.

15           COMMISSIONER MC ALLISTER: So, just to put that  
16 in perspective that's what, roughly about 20 car batteries?

17           MR. FRIEDLAND: Yeah, exactly. Exactly.

18           COMMISSIONER MC ALLISTER: Okay.

19           COMMISSIONER DOUGLAS: So, you know, I guess I'll  
20 just comment that I remember well when you guys came here  
21 in 2010 and in part this grant got my attention because,  
22 you know, when I was a kid I did tool around town on a  
23 little scooter, it was obviously gas, but I remember.

24           You know, I really strongly believe that it is  
25 important to move this technology into different parts of

1 the marketplace. So, I think electric bikes are great. I  
2 think, you know, electric motorcycles, and scooters, and  
3 sports cars and SUVs are great. The more than we can --  
4 the more that we see this technology diversify and take off  
5 for different parts of the marketplace, and consumers who  
6 are looking for different types of experiences and  
7 performance from their vehicles, you know, the better off  
8 we're going to be and the faster we're going to get to goal  
9 on zero emission technology.

10 So, anyway, I'm strongly supportive as well and  
11 wish you the best of luck with that. You know, I do not  
12 have an electric motorcycle, I don't think -- you know, but  
13 I do have a little kind of old electric bike and it is fun  
14 to tool around town on that. And when you're pulling two  
15 kids in a trailer, and it's a hundred degrees out, it's  
16 kind of nice.

17 So, you know, there's a niche for all sorts of  
18 vehicles out there and it's really good to see.

19 So, with that let me just see if there's a motion  
20 for Item 10.

21 COMMISSIONER PETERMAN: I'll move Item 10.

22 COMMISSIONER MC ALLISTER: And I'll second.

23 COMMISSIONER PETERMAN: Oh, wait, I'll move Item  
24 11.

25 COMMISSIONER MC ALLISTER: Item 11.

1 COMMISSIONER DOUGLAS: My bad, Item 11.

2 COMMISSIONER PETERMAN: You only get one grant,  
3 Quallion.

4 (Laughter)

5 COMMISSIONER PETERMAN: I move Item 11.

6 COMMISSIONER MC ALLISTER: And I'll second.

7 COMMISSIONER DOUGLAS: All in favor?

8 (Ayes.)

9 COMMISSIONER DOUGLAS: The item is approved  
10 unanimously. Thanks for being here.

11 MR. FRIEDLAND: Thank you, thank you very much.

12 COMMISSIONER DOUGLAS: Absolutely.

13 So, on to Item 12, City of Mt. Shasta; possible  
14 approval of agreement ARV-12-007 for a grant of \$200,000 to  
15 the City of Mount Shasta to provide a Comprehensive Plug-In  
16 Electric Vehicle Plan for Siskiyou, Shasta, and Tehama  
17 Counties.

18 Jared.

19 MR. CACHCO: Yeah, another one of mine. With  
20 this funding the City of Mount Shasta will create a plug-in  
21 electric vehicle or PEV Coordinating Council to create a  
22 comprehensive PEV readiness plan for the upstate region,  
23 which includes the counties you have mentioned.

24 This grant is similar to other PEV readiness  
25 awards that have been awarded and brought forward in the

1 past, most recently for Monterey, Southern California in  
2 Coachella Valley, all of which were approved last April.

3 This particular grant is the tenth and final  
4 award of the solicitation for the regional plan's support  
5 of PEV readiness.

6 The regional plan to be developed within two  
7 years will include planning for electric vehicle charging  
8 infrastructure at various sites. These sites include  
9 single- and multi-unit residential dwellings, workplaces,  
10 fleets, commercial and public locations, as well as long  
11 traffic corridors.

12 The Council will coordinate with utilities,  
13 automakers and local governments to provide consumer  
14 education and outreach, and they will also streamline  
15 processes for charging infrastructure such as permitting,  
16 installation and inspection practices.

17 The successful introduction of PEVs will require  
18 coordinated efforts among key stakeholders to overcome  
19 obstacles and ensure smooth market development, and this  
20 project addresses that need.

21 Much of the focus on early market development has  
22 been the State's metropolitan areas, but there is also a  
23 need to provide planning activities in the State's rural  
24 communities.

25 Coordinated PEV infrastructure in the up-state

1 region will also help to link areas along the Interstate 5  
2 corridor.

3 And petroleum displacement and pollution  
4 reduction benefits will come as an indirect result of this  
5 plan.

6 Staff requests the Commission's support and  
7 approval of this project.

8 I'll be happy to take any questions you might  
9 have.

10 By the way, the City of Mount Shasta and their  
11 partner, the Siskiyou County Economic Development Council  
12 send their regards and they're excited to be considered for  
13 this aware as well. Thank you.

14 COMMISSIONER DOUGLAS: Great. Well, thank you  
15 very much.

16 Questions or comments, Commissioners?

17 COMMISSIONER PETERMAN: Thank you, Jared, for  
18 that presentation. I'll just make a comment that, as Jared  
19 noted, this is the last of the planned PEV readiness  
20 grants. And I think this has been a very successful grant  
21 category for the AB 118 program.

22 We've spent a good portion of the day talking  
23 about opportunities for the vehicles and opportunity for  
24 manufacturing some of the fuels. And what these grants are  
25 about are about making sure that communities are ready to

1 accept these alternative vehicles, that they have -- that  
2 they're in compliance in terms of access for ADA  
3 compliance, that there's appropriate signage.

4           And considering the amount of money each grant  
5 is, a couple hundred thousand dollars, the impact and the  
6 education it can have as a part of that I think will go a  
7 long way.

8           And so I'm very supportive of this effort that  
9 the Commission is engaging in, and particularly expanding  
10 the readiness grants to include more rural areas and making  
11 sure that all Californians have access to plug-in electric  
12 vehicles and alternative transportation.

13           Commissioners, do you have any questions?

14           COMMISSIONER MC ALLISTER: I'd just -- well, not  
15 substantive, but I just want to commend the Fuels and  
16 Transportation Division, and Commissioner Peterman on, you  
17 know, pretty much the whole agenda so far today has been  
18 transportation and, many, many impressive initiatives.  
19 They all add up to a pretty impressive whole, comprehensive  
20 approach, which is exactly what the State needs, and I  
21 think that's very, I think, impressive and positive.

22           And, obviously, 118 has sort of provided the  
23 guidance and possibilities there, but just the  
24 implementation has been so well done that I think we're --  
25 as a State we're really benefiting from it. So, I just

1 wanted to give my kudos to the team.

2 COMMISSIONER PETERMAN: Thank you, Commissioner  
3 McAllister. Indeed, it has been a team effort. There have  
4 been a number of people within the Commission, within the  
5 Transportation Division, within the Executive Office that  
6 have worked to make sure that we continue to implement this  
7 program successfully.

8 And every day just gets better and I think what  
9 we've seen today in terms of the array of projects really  
10 represents the diversity of fuels and projects across the  
11 State that we support. I think it's also representative of  
12 the Commission's ability to continue to deal with kind of  
13 cutting edge issues, as well as the nuts and bolts of  
14 getting money out, getting money out to sometimes  
15 applicants who are less familiar with State contracting  
16 processes. And there are a lot of folks who don't come and  
17 present at the business meeting, but are in the back  
18 office, who are doing their best to get these contracts out  
19 in a timely manner, while still maintaining transparency.

20 And I think that's a really important point to  
21 make that sometimes there is that balance between  
22 efficiency and transparency. And I think the staff does a  
23 great job about communicating with the public, with  
24 stakeholders, and presenting this information in as many  
25 forms as we can.

1           So, thank you for your support of the group's  
2 efforts.

3           COMMISSIONER MC ALLISTER: Should I make a  
4 motion? Yeah, I'll make a motion. This is Item 11 --

5           COMMISSIONER PETERMAN: It's 12.

6           COMMISSIONER MC ALLISTER: Oh, 12.

7           COMMISSIONER PETERMAN: It turns out we can't  
8 count when the Chair's not here.

9           COMMISSIONER MC ALLISTER: Yeah, we can ask lots  
10 of great questions but we can't count.

11           COMMISSIONER DOUGLAS: We can't agree to what  
12 item we're on. We're on Item 12.

13           COMMISSIONER MC ALLISTER: Okay, so I'll move  
14 Item 12.

15           COMMISSIONER PETERMAN: I'll second that.

16           COMMISSIONER DOUGLAS: All in favor?

17           (Ayes.)

18           COMMISSIONER DOUGLAS: Item 12 has just been  
19 approved unanimously. Thank you.

20           MR. CACHCO: Thank you.

21           COMMISSIONER DOUGLAS: Item 13, University of  
22 California, Berkeley; possible approval of Contract 500-12-  
23 003 for \$200,000 with the Regents of the University of  
24 California on behalf of the Berkeley campus to develop a  
25 guidebook on Title 24 benefits for local governments as it

1 pertains to natural gas efficiency standards for new and  
2 retrofits of commercial and residential buildings.

3 Dan.

4 MR. GALLAGHER: Good morning Commissioners,  
5 my name is Dan Gallagher and I'm with the Energy Research  
6 and Development Division.

7 I am here today requesting approval of this  
8 contract that will provide an analysis of Title 24 benefits  
9 to local governments. This research will be conducted by  
10 an interdisciplinary team at UC Berkeley, including the  
11 Center for Resource Efficient Communities, the Center for  
12 the Built Environment, and the Fisher Center For Real  
13 Estate and Urban Economics at the Hass School of Business.

14 The California Energy Commission has the  
15 authority to adopt residential and nonresidential building  
16 efficiency standards for newly constructed buildings, as  
17 well as additions and alterations known as Title 24, part  
18 6, to minimize energy consumption and environmental  
19 footprint of buildings.

20 These standards are not directly implemented by  
21 the Commission but, instead, must be implemented by the 530  
22 plus local building departments across our State that issue  
23 permits for and inspections of construction activities.

24 The achievement of the standards-predicted energy  
25 and cost savings is therefore dependent upon vigorous

1 implementation enforcement by these local agencies.

2           Research providing information on the net  
3 benefits to local governments from the standards and other  
4 building efficiency standards is needed to inform future  
5 regulatory development and ensure that present and future  
6 energy efficiency and greenhouse gas emission goals are  
7 achieved.

8           According to the Air Resources Board, buildings  
9 represent the second largest source of California's  
10 greenhouse gas emissions. In order to reduce greenhouse  
11 gas emissions and natural consumption, while promoting more  
12 renewable energy sources and diversifying fuels, it will be  
13 necessary to design and retrofit buildings to be more  
14 energy efficiency.

15           Since 1978, when the building energy-efficient  
16 standards were first adopted, per-household consumption of  
17 natural gas has dropped from 838 therms to 454 therms, a  
18 reduction of nearly 48 percent.

19           Since the major standards update in 1998, per-  
20 household natural gas usage in California has dropped from  
21 609 therms to 454 therms, a decrease of more than 25  
22 percent.

23           This project will research and document the  
24 environmental, economic, and equity cost and benefits to  
25 local governments of mandatory Title 24, part 6, and

1 voluntary natural gas efficiency standards both for new  
2 buildings and for retrofits of existing commercial and  
3 residential structures.

4           The product of this work will be analysis of  
5 Title 24 benefits directed at the 530 plus local building  
6 departments across our State that enforce the building  
7 efficiency standards and implement energy efficiency  
8 upgrade programs, as well as select policymakers in those  
9 municipalities.

10           This analysis will be accompanied by an outreach  
11 program conducted in coordination with the Governor's  
12 Office of Planning and Research, as well as the Air  
13 Resources Board.

14           Staff has coordinated this research with both the  
15 Energy Efficiency Research Office and the Buildings  
16 Standards Office, who are very supportive of this project  
17 as it will assist them in communicating to city and county  
18 decision makers the value and benefits of compliance with  
19 the building energy efficient standards.

20           The Building Standards Office will review all  
21 deliverables.

22           Each California city and county has a building  
23 department with responsibility for enforcement of the  
24 building energy efficient standards. And with the current  
25 economic times, they report that they are severely under-

1    staffed.

2                   This analysis will provide local governments with  
3    explanation and documentation of the benefits their city or  
4    county will receive through increased compliance with the  
5    building energy efficient standards.

6                   With this increased knowledge the city and county  
7    decision makers can make more informed decisions on  
8    resource allocations within their building departments to  
9    achieve compliance with the standards and realize the full  
10   range of benefits.

11                  Local governments that support this project, as  
12   the analysis will be both useful and used by them, include  
13   the City of San Francisco, the City of Berkeley, and the  
14   City of Chula Vista, and San Diego County, of which we  
15   received letters of support.

16                  The research team leads from UC Berkeley's Center  
17   for Resource-Efficient Communities are here today to speak  
18   in more detail to the proposed research project, as well as  
19   to answer any questions.

20                  COMMISSIONER DOUGLAS: Thank you. Come on  
21   forward.

22                  MR. EISENSTEIN: Good morning. I am Bill  
23   Eisenstein, I am the Executive Director of the Center for  
24   Resource-Efficient Communities at UC Berkeley, and I  
25   appreciate your time and consideration of this potential

1 contract.

2 I did want to reemphasize and supplement some of  
3 Dan's comments with, as he said, a little more detail about  
4 some of the issues that we'll be investigating.

5 First of all, to reemphasize we are -- this is  
6 going to be a fairly comprehensive look at this issue, so  
7 Title 24, part 6 is central to the building codes that we  
8 will be examining, but we are also going to be looking at  
9 situations where local governments, local agencies may have  
10 programs that exceed Title 24 standards, as well as some of  
11 the retrofit activity that's now occurring under the AB 758  
12 initiatives.

13 And so we are looking at all types of  
14 development, essentially, both new and existing and  
15 including both residential and nonresidential, as Dan  
16 mentioned.

17 We see this research as very essential not only  
18 to encouraging more -- encouraging vigorous implementation  
19 of the standards that do exist today, but also in looking  
20 down the line at the more upgraded standards that are going  
21 to be coming into force in future years, and to ensuring  
22 that those standards both respond to some of the issues  
23 that may exist in local agencies, as well as are then  
24 vigorously enforced and implemented by those local  
25 agencies.

1           So, some of these potential benefits and costs  
2 that we're proposing to look at include things like the  
3 direct energy savings that local governments, themselves,  
4 may experience through more efficient buildings, that's a  
5 fairly obvious one.

6           But perhaps less obvious to many is the indirect  
7 fiscal benefits that local governments experience from  
8 improved energy efficiency and natural gas efficiency. So,  
9 these could be things like avoidance of hospitalizations  
10 and missed work days due to public health issues in local  
11 populations related to reduced emissions of natural gas-  
12 related air pollutants.

13           There's job creation effects, potentially, from  
14 required efficiency upgrades.

15           There can be local sales tax and local property  
16 tax benefits from improved efficiency of buildings and  
17 improved property values. There's already some literature  
18 documenting those sorts of improvements.

19           And then we also have the ways that those  
20 property value increases are reflected in tax revenues  
21 which, of course, are to the benefit of local governments  
22 and their priorities.

23           And as Dan mentioned, we are very much in a  
24 climate of budgetary constraint, budgetary scarcity for  
25 many of these local governments, so these are important

1 factors.

2 I did want to emphasize, as well, that the  
3 research will, in addition to looking at those issues  
4 directly and drawing upon existing literature, will also be  
5 identifying issues and concerns surrounding implementation  
6 of the standards that may either incentivize or impede  
7 achievements of the potential benefits.

8 The critical factors that affect the level of  
9 costs and benefits to local governments, the degree to  
10 which any of those benefits and costs vary across the  
11 State, different regions have different characteristics,  
12 both socially and climatically, and so the benefits may  
13 vary.

14 And then also looking ahead to potential long-  
15 term benefits from future efforts to meet more ambitious  
16 natural gas efficiency standards so, again, in recognition  
17 that this isn't the end of the road but in fact the  
18 beginning, in some ways, of a steeper upgrade trajectory  
19 toward your zero net energy goals, for example.

20 So, we'll be doing this through a lot of direct  
21 contact with local agencies and building department  
22 officials, and building policymakers at the local level  
23 that our methods will be driven heavily by robust  
24 interviewing and contact with those folks, both in the  
25 formulation of the study and the research.

1           And then particularly, as Dan emphasized, in the  
2 outreach phases when we do have the guidebook produces, we  
3 will be working with all the partners Dan mentioned as well  
4 as, I might add, CEC staff who, of course, have many  
5 contacts in that world, to get the guidebook into the hands  
6 of the people who really can and should benefit from it.

7           So, with that I think I'll thank you and ask for  
8 your questions, if you have any.

9           COMMISSIONER DOUGLAS: Great, thank you. We also  
10 have public comment from Mark Palmer, with the City and  
11 County of San Francisco. Mr. Palmer, are you on the line?

12           I'll just note that somewhere buried on my paper,  
13 Mark Palmer, from the City and County of San Francisco, did  
14 send a letter in on this topic, supporting this agenda  
15 item. And so, you know, we can certainly docket this  
16 letter.

17           He points out, "San Francisco's very strong  
18 energy efficiency and sustainability policy, and notes that  
19 the study will provide valuable information to help local  
20 governments make wiser building policy decisions and  
21 achieve better implementation of energy efficiency  
22 standards."

23           And so, he wrote in, strongly supporting the  
24 program, the project.

25           And Mr. Palmer, if you're on the line, just go

1 ahead and speak up and you'll have a chance to make  
2 comment.

3 I just had a brief question for you. It looks to  
4 me from the write-up that you're really focused on the  
5 natural gas aspects of the standards, is that correct?

6 MR. EISENSTEIN: Yes.

7 COMMISSIONER DOUGLAS: Okay, that's my only  
8 question.

9 COMMISSIONER MC ALLISTER: I'll just --  
10 Commissioner Peterman, did you want to make a comment?

11 COMMISSIONER PETERMAN: I'll just make a comment  
12 and then I imagine Commissioner McAllister, since you're  
13 more familiar with the topic, you'll have more to say.

14 I just think it's great that you are reaching out  
15 to local governments. A lot of products come out of this  
16 Commission, a lot of work, and I know that local  
17 governments are slimly staffed. And to the extent we can  
18 really highlight some of the benefits and opportunities  
19 from some of the regulations that are passed, or the work  
20 that's been done, and really focus on their needs and  
21 identifying the value for them, I think is great.

22 COMMISSIONER MC ALLISTER: So, is Mr. Palmer  
23 not -- are you hearing him on the line at all, anybody?  
24 No.

25 So, yeah, let's see, I want to just highlight the

1 importance of the local government connection along the  
2 lines of Commissioner Peterman's comments, and really that  
3 they have incredible limitations right now, yet they are  
4 empowered and indeed required to enforce the law of the  
5 land, of which Title 24 is a part.

6           And so it's difficult to manage for many local  
7 governments, most at this point, local governments. And  
8 the -- as we get towards zero net energy and really, the  
9 way we are today, you know, there are highly technical  
10 topics that come up with new construction and with just  
11 building projects in general. And there are a lot of new  
12 technologies coming out.

13           And the sort of permitting offices, the  
14 inspectors, those communities I think sometimes struggle  
15 with keeping up to date.

16           They're also under lots of different pressures at  
17 the local level that don't always combine very well with,  
18 you know, thick new standards.

19           So, I think it's really important that we work  
20 out ways to encourage and allow them to enforce the law as  
21 it is and sort of take some of those conflicts off of their  
22 plate, and homogenize, and streamline, and all of that kind  
23 of stuff and really make it more of a team effort.

24           And I think this is one great activity to figure  
25 out how to do that, so I appreciate this.

1 I'd also highlight that internally, to the  
2 Commission, you know, the PIER Program and the EPIC Program  
3 to come are highly -- they're extremely important for  
4 informing the policy areas across the Commission.

5 So, as the lead on energy efficiency, this  
6 particular activity is really important to me and I'm glad  
7 to see that the building standards group is engaged and  
8 will be reviewing, and sort of gut checking some of the  
9 stuff you guys come up with.

10 Also, I'll note that AB 758, we just had two  
11 workshops that were highly productive and very interesting,  
12 Monday and Tuesday of this week.

13 That legislation that we're implementing, really  
14 on the front end of implementing, enforcement and  
15 compliance is a very important front and center aspect of  
16 what we need to accomplish in the implementation of that  
17 legislation.

18 And so this project, and potentially others like  
19 it, will help us provide the right kind of flesh to the  
20 bones of the legislation to make sure that we can do it  
21 effectively and with as much consensus as we can garner in  
22 the marketplace.

23 So, for all those reasons, I think this is a  
24 great project and it fits well within a strategy that will  
25 really get us where we need to go for the long term. So,

95

1 that's for your presentation.

2 COMMISSIONER DOUGLAS: Great, good comments.

3 I understand that Mark Palmer might be on the  
4 line, but we're still having trouble connecting so --

5 MR. PALMER: Hello, this is Mark.

6 COMMISSIONER DOUGLAS: Oh, we hear you, go ahead.

7 MR. PALMER: Hi, I understand you may have read  
8 the testimony. Should I go ahead and deliver it?

9 COMMISSIONER DOUGLAS: I really summarized just a  
10 little bit of it. Why don't you go ahead -- you don't need  
11 to read it, but you can certainly underscore any key points  
12 that you'd like to.

13 MR. PALMER: Okay. Well, Commissioners, thank  
14 you very much for taking my comment today. And my name is  
15 Mark Palmer, I'm the Municipal Green Building Coordinator  
16 for the City and County of San Francisco, and I'm deeply  
17 involved in formulating and implementing San Francisco's  
18 building policies, especially those to do with energy  
19 efficiency and sustainability.

20 The City and County of San Francisco has very  
21 strong policies in this regard, with requirements that new  
22 commercial buildings be LEAD certified and that all new  
23 buildings achieve a 15-percent margin beyond Title 24 2008  
24 standards.

25 And to adopt or to maintain this type of a REACH

1 code local governments must complete a cost-effectiveness  
2 study, and local elected officials must make a finding that  
3 the Energy Efficiency Board requirements are cost  
4 effective.

5 And as Title 24 2013 narrows the gap between code  
6 minimum and best practice, particularly for nonresidential  
7 buildings, it increases the importance that the cost-  
8 effectiveness study be robust.

9 And this project, the "Local Governments Benefits  
10 From Building Energy Efficiency Standards Project" could  
11 enhance or be the basis for San Francisco's cost-  
12 effectiveness study.

13 And more generally, the study will provide  
14 valuable information that will help local governments make  
15 wiser building policy decisions and achieve better  
16 implementation of energy efficiency standards, and  
17 especially as those standards become stronger over time.

18 And many local governments are highly cost  
19 conscious and under strong budgetary pressure, so  
20 information on the economic and fiscal benefits of building  
21 energy efficiency standards is very timely and important.

22 Overall, I strongly support the project and urge  
23 you to approve it. Thank you very much.

24 COMMISSIONER DOUGLAS: Well, thank you. thanks  
25 for your comments and thanks for hanging in there with us.

1 Do we have a motion on this item?

2 COMMISSIONER MC ALLISTER: I'll move Item Number  
3 13.

4 COMMISSIONER PETERMAN: I will second.

5 COMMISSIONER DOUGLAS: All in favor?

6 (Ayes.)

7 COMMISSIONER DOUGLAS: The item's approved  
8 unanimously.

9 MR. EISENSTEIN: Thank you very much.

10 COMMISSIONER DOUGLAS: Thank you.

11 Item 14, County of Santa Clara; possible approval  
12 of Agreement 003-12-ECF for a \$2,991,209 Energy  
13 Conservation Assistance Act Loan to the County of Santa  
14 Clara to fund energy efficiency upgrades at the County  
15 Government Center.

16 Amir.

17 MR. EHYAI: Thank you and good afternoon,  
18 Commissioners. My name is Amir Ehyai and I'm with the  
19 Special Projects Office.

20 I'm here seeking your approval today of a low  
21 interest rate Energy Commission loan under the EECA Loan  
22 Program to the County of Santa Clara.

23 The County of Santa Clara has requested a  
24 \$2,991,209 loan to fund several energy efficiency measures  
25 at the County Government Center facility located in San

1 Jose.

2           When complete, these projects will contribute  
3 significantly to an effort currently underway to operate  
4 this building as a zero net energy facility.

5           A bit of background, in 2001 the County  
6 commissioned an energy study to develop a zero net energy  
7 strategy for the County Government Center. This strategy  
8 includes use of solar photovoltaic panels, renewable fuel  
9 cells, and a host of energy efficiency measures.

10           The solar PV system is currently operational and  
11 the fuel cells will be installed within the next few  
12 months.

13           The county is also negotiating a contract to  
14 supply the fuel cells with biogas so that the system's  
15 electricity will be renewable.

16           In total, the solar PV and fuel cell projects  
17 will generate an estimated 61 percent of the electricity  
18 use at this facility.

19           The remaining 39 percent of the building's annual  
20 baseline electricity use and 61,000 therms of natural gas  
21 use will be eliminated with the implementation of a broad  
22 range of energy efficiency measures.

23           It is these energy efficiency measures that will  
24 be funded with the Energy Commission loan.

25           The County Government Center is a large, multi-

1 story facility encompassing 400,000 square feet of office  
2 space. The facility was built in 1976.

3           The projects to be funded with the Energy  
4 Commission loan include a comprehensive lighting system  
5 retrofit, which will include occupancy-controlled LED task  
6 lights in lieu of reduced overhead lighting, high-  
7 efficiency T-8 floor lamps and ballasts, installation of  
8 occupancy sensors and daylight controls among -- and among  
9 other lighting measures.

10           IT projects include consolidation and  
11 virtualization of computer servers and the installation of  
12 desktop computer management software.

13           Plug load will be further reduced with the use of  
14 occupancy-controlled Smart power strips.

15           HVAC and mechanical projects include upgrades to  
16 convert the chilled water plant to an all-variable-flow  
17 chilled water plant. Two new condensing boilers will  
18 replace standard efficiency boilers in the boiler plant,  
19 and variable frequency drives will be installed on a number  
20 of pumps and motors to maximize efficiencies during part-  
21 load conditions.

22           Once these projects are complete, the new  
23 equipment will be commissioned and fault-detection software  
24 installed to monitor the energy systems and ensure long-  
25 term persistence of the savings.

1           In total, these projects will reduce annual  
2 energy use by approximately 3.1 million kilowatt hours of  
3 electricity and 61,000 therms of natural gas. These  
4 projects will save the County over \$470,000 in annual  
5 energy utility costs and will reduce annual greenhouse gas  
6 emissions by approximately 1,447 tons of CO2.

7           These projects also qualify for upwards of  
8 \$320,000 in utility company incentives.

9           Staff has determined that the loan request is  
10 technically justified and meets the requirements of an  
11 Energy Commission loan.

12           I appreciate your consideration of this item and  
13 I'm happy to answer any questions that you have.

14           COMMISSIONER DOUGLAS: Great, thank you. I mean  
15 it certainly looks like a really good loan and I'm really  
16 happy that the County of Santa Clara is participating in  
17 the program.

18           Other comments and questions?

19           COMMISSIONER MC ALLISTER: Just to reiterate what  
20 I said before about the ECCA Program, it really hits a  
21 sweet spot in what's needed and the local governments have  
22 had really positive, I think, experiences all around with  
23 it.

24           And to the extent we can keep it going and keep  
25 funding it and finding sources of capital, we should

1 absolutely do that. You know, this is a loan, it's not a  
2 grant, and it can live on for a long time, it has reflows  
3 associated with it.

4 So, I think it's a really great offering that the  
5 Commission -- that's relatively low cost to the State. It  
6 is a subsidized interest, but it is actually capital, it's  
7 a loan and will come back to us.

8 And the requirements around the kinds of things  
9 it's funded, of which is this a really, fairly typical  
10 example are great projects, with good cost effectiveness,  
11 and the capital is sort of in the right place at the right  
12 time to make it happen.

13 So, this project is no exception. I have a lot  
14 of faith in the vetting process at the Commission for what  
15 projects are worth funding and would strongly support this  
16 project.

17 Okay, so I'll move Number 14.

18 COMMISSIONER PETERMAN: I'll second.

19 COMMISSIONER DOUGLAS: All in favor?

20 (Ayes.)

21 COMMISSIONER DOUGLAS: Item 14 passes

22 unanimously, thank you.

23 And moving on, now, to Item 15, the City of Napa,  
24 possible approval of Agreement 002-12-ECF for a loan of  
25 \$1,907,136, at 3 percent interest to the City of Napa to

1 install 4,747 LED and induction streetlights.

2 Karen.

3 MS. PERRIN: Good afternoon Commissioners. I am  
4 Karen Perrin from the Special Projects Office.

5 And the City of Napa is seeking approval of a  
6 \$1,907,136 loan to retrofit their city streetlights.

7 The original lighting along the city streets is  
8 metal halide and high-pressure sodium. And Napa has  
9 completed some pilot programs already of their  
10 streetlights, using the PG&E Turnkey Program.

11 Based on the success of the projects and the  
12 energy savings, the City would like to retrofit the entire  
13 City streetlights and replace them with energy efficient  
14 lamps.

15 The City will retrofit over 4,700 fixtures to  
16 energy efficient LED and induction lights.

17 The City expects to receive \$260,000 in PG&E  
18 utility incentives.

19 The requested loan will save the City over  
20 \$173,000 annually in utility costs.

21 And staff is seeking your approval.

22 COMMISSIONER DOUGLAS: Thank you. Questions or  
23 comments, Commissioners?

24 COMMISSIONER MC ALLISTER: Any, Commissioner  
25 Peterman? No?

1                   COMMISSIONER PETERMAN: No. It's a really good  
2 project for all the reasons that you stated previously,  
3 Commissioner McAllister.

4                   COMMISSIONER MC ALLISTER: So, lighting is a  
5 really interesting use of ECCA funds. I think there's a  
6 lot of -- it has a lot of -- lighting is just interesting  
7 all around, it's sort of like batteries, I guess.

8                   But the local jurisdiction has to do a lot of  
9 work to make a street-lighting project work. The pilot  
10 projects, I think, have been really key to making sure  
11 there's public acceptance to testing out the new  
12 technologies.

13                   Oftentimes, I don't know in this case, but I  
14 suspect that there has been a lot of work with the fairly  
15 highly developed and knowledgeable advocates around the  
16 dark sky issues, and folks who want to look up into the  
17 heavens because street lighting is an impediment, really,  
18 to them to make it work if it's not done right.

19                   So, it's a really -- it's actually a fairly  
20 significant policy decision at the local government level  
21 to do this, particularly to do every single streetlight in  
22 a jurisdiction.

23                   So, kudos to the City of Napa and to the sort of  
24 foresight they have to be able to do this.

25                   The technologies that we have today are just

1 phenomenal and the quality of light, the advocacy, it's  
2 ripe for pretty much all streetlights to be retrofit. We  
3 know that they operate a lot of hours, you know, generally  
4 they're on all night, so the energy savings are there and  
5 they're very predictable.

6 So, again, ECCA's a great -- these projects are  
7 self-funding in a way, but the cities need the capital and  
8 so ECCA's a really great application for those funds.

9 So, I will go ahead and move Item 15.

10 COMMISSIONER PETERMAN: I'll second.

11 COMMISSIONER DOUGLAS: All in favor?

12 (Ayes.)

13 COMMISSIONER DOUGLAS: Item 15 passes  
14 unanimously.

15 Item 16, Pacific Gas & Electric Company; possible  
16 approval of Agreement PIR-11-004 for a grant of \$1,000,000  
17 to Pacific Gas & Electric Company to verify the performance  
18 of an advanced underground compressed air storage plant for  
19 providing ancillary services to the electric grid.

20 Johann.

21 MR. KARKHECK: Good afternoon Commissioners. My  
22 name is Johann Karkheck, I'm here with the Energy Systems  
23 Research Office, here seeking approval of Agreement PIR-11-  
24 004, with PG&E for \$1,000,000.

25 This grant will provide cost share for a project

1 funded by the U.S. Department of Energy's ARRA program to  
2 conduct an underground compressive air energy storage  
3 demonstration.

4 The project is a three-phase project totaling  
5 \$355 million. This grant provides cost share for the first  
6 phase of the project, which is \$50 million.

7 Work performance in this first phase involves  
8 analyzing geologic data of depleted gas reservoirs and  
9 performing an engineering cost benefit analysis to select a  
10 suitable site in California.

11 The compressed air energy storage demonstration  
12 will determine the system's reliability, durability, and  
13 ability to provide ancillary services that aid in  
14 integrating variable renewable energy resources into the  
15 electric grid.

16 Staff would request approval of this agreement  
17 and I'd be happy to answer any questions.

18 COMMISSIONER DOUGLAS: Thank you. And Valerie  
19 Winn is here, from PG&E, to comment on this item. Come on  
20 forward.

21 MS. WINN: Hi, Valerie Winn with PG&E. I just  
22 wanted to say thank you to the Commission for their support  
23 of this project. And I know Johann has talked about a few  
24 of the steps coming up, I wanted to give you a little bit  
25 more information on where we are in this process.

1           Of course, right, we're looking at a few  
2 different sites that we would acquire to do tests for this  
3 project, and we're hoping to complete the acquisition of  
4 those sites by the end of this year.

5           And then we would be able to start drilling some  
6 samples so that we could analyze those samples for their  
7 geological properties to see if it makes sense to have a  
8 compressed air energy storage facility in these locations.

9           So that drilling would start by the end of the  
10 year, first quarter of next year, and we'd do that  
11 analysis.

12           And then based on the results of that analysis,  
13 we will be selecting the best site, then, to do air  
14 injection testing because we'll want to see, you know, how  
15 well does the air hold at these locations or at one -- the  
16 best location.

17           In mid-2014 we'd be expecting to have a request  
18 for offer to seek feedback from people who might be  
19 interested in building this compressed air energy facility.  
20 And based on the air injection test and the RFO results, we  
21 would be able to perform a cost benefit analysis at that  
22 time, as to whether we would be moving forward with the  
23 project.

24           So, but thank you again for the support, it's  
25 really exciting and we think it will be -- could be a

1 really good project for helping to integrate the higher  
2 levels of intermittent renewables on the system. Thank  
3 you.

4 COMMISSIONER DOUGLAS: Yeah, thank you. I mean,  
5 obviously, storage projects are going to be very important  
6 for us in terms of integrating renewables as we go forward,  
7 and it's nice to see this project leveraging Recovery Act  
8 money, as well.

9 So, I don't know if Commissioners, if you have  
10 any additional questions?

11 COMMISSIONER MC ALLISTER: I'm curious about the  
12 site, what kinds of sites you might be looking at, whether  
13 you're looking at, you know, particular sites next to -- I  
14 mean, obviously, it's got to be next to the grid and I'm  
15 wondering sort of urban, rural, or if you're sort of really  
16 looking at strategically on, you know, loadings throughout  
17 the distribution grid, or the transmission grid, or sort of  
18 things like that.

19 I don't know if you can speak to those technical  
20 issues.

21 MS. WINN: No, I really can't speak to those  
22 technical issues.

23 COMMISSIONER MC ALLISTER: Okay, yeah.

24 MS. WINN: But I'd be happy to get more  
25 information for you.

1           My recollection is they are really porous rock  
2 formations, old oil field sites that maybe we're evaluating  
3 to see if they're suitable for this. But I'm not certain  
4 as to the exact location of the three sites we're looking  
5 to acquire by year end.

6           COMMISSIONER MC ALLISTER: Okay, and just on sort  
7 of functionally, this predates me, I think, as far as the  
8 whole ARRA development and the selection -- or your  
9 selection in the ARRA process, but this presumably was a  
10 match that we committed to at the time PG&E applied; is  
11 that right?

12           MS. WINN: I believe that's correct.

13           COMMISSIONER MC ALLISTER: Okay, so we're just  
14 following through with our commitment here, really.

15           MS. WINN: Uh-hum.

16           COMMISSIONER MC ALLISTER: Yeah, great. Yeah,  
17 great project, storage is, you know, a high priority in the  
18 State so we need all comers that work.

19           COMMISSIONER DOUGLAS: So, is there a motion on  
20 Item 16?

21           COMMISSIONER MC ALLISTER: I'll move Item 16.

22           COMMISSIONER PETERMAN: I'll second.

23           COMMISSIONER DOUGLAS: All in favor?

24           (Ayes.)

25           COMMISSIONER DOUGLAS: Item 16 is approved.

1 MS. WINN: Thank you, again.

2 COMMISSIONER DOUGLAS: Thank you.

3 Item 17, Bay Area Air Quality Management  
4 District; possible approval of Contract 600-12-2002 for  
5 \$3,000,000 with the Bay Area Air Quality Management  
6 District for the Bay Area e-Taxi Program.

7 Sarah.

8 MS. WILLIAMS: Good morning Commissioners, I'm  
9 Sarah Williams from the Emerging Fuels and Technologies  
10 Office.

11 I'm here to request approval of a contract for  
12 \$3,000,000 in Alternative and Renewable Fuel and Vehicle  
13 Technology Program funding with the Bay Area Air Quality  
14 Management District.

15 This will fund part of a \$25.75 million program.  
16 This programs includes funding from the San Francisco  
17 Municipal Transportation Agency, the City of San Jose, and  
18 the United States Department of Transportation.

19 The Bay Area Air Quality Management District  
20 plans to do a two-phase demonstration project to  
21 demonstrate zero emissions battery-electric taxis, with  
22 switchable batteries, along the corridor between the San  
23 Francisco International Airport and the San Jose  
24 International Airport.

25 The battery switch station automates the battery

1 change process so that the driver experience is similar to  
2 that of a car wash.

3 Our funding is for phase one, which will develop  
4 and deploy two battery switch stations and six battery-  
5 switchable electric taxis.

6 As a result of successful completion of phase  
7 one, phase two would demonstrate two additional battery  
8 switch stations and 55 additional battery-switchable taxis.

9 This program expects to create about 143 short-  
10 term jobs and 135 long-term jobs over three years.

11 These jobs include taxi operators, including taxi  
12 jobs created by the ability to generation zero emissions  
13 medallions.

14 I'm here to ask the Commission to support this  
15 project.

16 And Damien Breen, from the Bay Area Air Quality  
17 Management District would like to make a comment.

18 COMMISSIONER DOUGLAS: Thank you. Mr. Breen.

19 MR. BREEN: Thank you Commissioners. The \$3  
20 million project that you're considering today provides for  
21 those two battery switch stations and the six electric  
22 vehicles. We fully expect those vehicles to be  
23 manufactured here in California to provide additional jobs  
24 in the State.

25 And because of the nature of the technology we're

1 talking about, the battery switch stations and the  
2 vehicles, themselves, allow batteries to be switched in  
3 seconds. That means that these vehicles, similar to our  
4 gasoline internal combustion engines would essentially have  
5 an unlimited range.

6 We expect the project to be completed within the  
7 next two years, so along a very aggressive timeline, and we  
8 expect that to be a marquee project for the electrification  
9 of fleets here in California.

10 Battery switch stations, obviously, like all of  
11 our other technology solutions, aren't the silver bullet.  
12 They're not the panacea for everything. But for fleets  
13 with stationery locations, such as taxi fleets, they  
14 provide a very interesting and very, I think, good  
15 technology that could reduce the emissions of those  
16 vehicles to zero.

17 The project that you have in front of you would  
18 become part of a 60-vehicle project that would deploy four  
19 stations throughout the system that would run between  
20 Northern and the Southern Bay Area.

21 And it leverages \$18 million in private funding,  
22 along with \$6.6 million in Federal and local funding coming  
23 from the Air District, our partners, the Metropolitan  
24 Transportation Commission, and the City of San Jose,  
25 Federal Government and, additionally, the San Francisco

1 Department of the Environment.

2 And the project, itself, is very innovative and  
3 we believe it supports the State's goals of air quality,  
4 greenhouse gas emissions reductions, your employment goals  
5 and your energy security goals.

6 And we're hoping that you look favorably on this  
7 request for funding today, and I'll be happy to answer any  
8 questions that I can.

9 COMMISSIONER DOUGLAS: Great. Well, thank you,  
10 thanks for being here.

11 So with that, questions or comments,  
12 Commissioners, on Item 17?

13 COMMISSIONER PETERMAN: I'll just make a comment  
14 that I think this project is another example of how we're  
15 trying to get electric cars into a wider and more diverse  
16 group of Californians.

17 And particularly, to the extent we can help our  
18 fleets convert is good.

19 And not all of us, we talked about earlier, can  
20 afford an electric car, but now we can afford to ride in  
21 one.

22 And this is the advantage, the taxi program will  
23 give a much wider array of folks exposure to electric  
24 vehicles.

25 And I look forward to seeing the results of the

1 project and the work that you're doing with the other  
2 companies involved, and I'm supportive of this initiative.

3 I'll also just note, particularly what's  
4 attractive about this project is this opportunity to  
5 leverage Federal funds, as well as private funds, and funds  
6 from local governments. And so I really applaud the  
7 diversity of stakeholders that are contributing funding to  
8 this project.

9 COMMISSIONER MC ALLISTER: Yeah, I would just  
10 sort of acknowledge the Bay Area AQMD for all of its  
11 innovation on the air quality front.

12 And it's hard to manage an out-of-compliance  
13 district, right, when you have that many people and that  
14 many cars, and packed into a relatively small area. And I  
15 think the AQMD has historically done a terrific job of  
16 engaging stakeholders and coming up with innovative  
17 programs to mitigate criteria pollutants and sort of take  
18 a -- in very specific and well-informed ways, but also  
19 taking a strategic global view, and this certainly fits in  
20 to that, that schema.

21 So, it's very exciting. I'm glad to see that  
22 model sort of also playing a role, because I think in a  
23 concentrated geographic area, like we have in the Bay Area,  
24 it seems like it's very appropriate, and so looking forward  
25 to sort of the monitoring and information that comes out of

1 it.

2           Would note that there is a small portion of the  
3 funding that's coming from ECCA, and wondering a little bit  
4 about sort of what the break up and reasoning behind that  
5 might be? Is there some usage difference that the 160 K  
6 from ECCA is going to cover?

7           MS. WILLIAMS: I can address that. That was  
8 actually just a typo on our part.

9           COMMISSIONER MC ALLISTER: Oh, okay.

10          MS. WILLIAMS: It is all Alternative Renewable  
11 Fuels and Vehicle Technology Funding.

12          COMMISSIONER MC ALLISTER: Oh, great, okay. I'm  
13 looking at the contract request form and the boxes that are  
14 checked. So, yeah, anyway, thanks, appreciate it.

15          MS. WILLIAMS: Well, thank you for your careful  
16 read of that and we'll make sure that's corrected.

17          COMMISSIONER MC ALLISTER: Yeah, exactly. So,  
18 yeah, we'll make sure that that's all good.

19          I guess, so all of it, all \$3 million, then, is  
20 coming from the ARFVTF, right?

21          MS. WILLIAMS: Yes.

22          COMMISSIONER MC ALLISTER: Okay, great, perfect.  
23 Thanks very much.

24          COMMISSIONER DOUGLAS: Great. Well, good  
25 comments and good question, Commissioner McAllister.

1 I'll just note, and I think this has been said,  
2 but it certainly seems like a program with switchable  
3 batteries for taxis in the Bay Area has a lot of potential  
4 because of the concentrated geographic area, because there  
5 is a lot of taxi usage in the Bay Area.

6 And, obviously, being able to switch the  
7 batteries out quickly seems like a huge benefit for taxis.

8 So, you know, we'll be watching this program  
9 closely and we'll be looking for, you know, hoping to get  
10 good news out of it. It seems like a really good  
11 application.

12 So, with that do we have a motion on Item 17?

13 COMMISSIONER PETERMAN: I will move Item 17.

14 COMMISSIONER MC ALLISTER: I'll second.

15 COMMISSIONER DOUGLAS: All in favor?

16 (Ayes.)

17 COMMISSIONER DOUGLAS: So, Item 17 is approved  
18 unanimously, thank you.

19 Item 18, Minutes, possible approval of the  
20 September 12th, 2012 Business Meeting Minutes.

21 COMMISSIONER PETERMAN: I'll move Item 18.

22 COMMISSIONER MC ALLISTER: I'll second.

23 COMMISSIONER DOUGLAS: All in favor?

24 (Ayes.)

25 COMMISSIONER DOUGLAS: The Minutes are approved.

1           Item 19, Lead Commissioner or Presiding Member  
2 Reports. Go ahead.

3           COMMISSIONER MC ALLISTER: So, I just wanted to  
4 highlight the record, get on the record just the fact that  
5 we had workshops yesterday on AB 758, and the day before,  
6 Monday and Tuesday of this week.

7           I think it was a really huge step in the right  
8 direction. It was a big lift for staff. We had dozens of  
9 panelists over the two days, all of whom brought a high  
10 level of knowledge, and engagement, and commitment, and I  
11 think willingness to work with the process and with us  
12 going forward.

13           And it was a very informative, substantive, meaty  
14 set of topics about how we are going to get AB 758  
15 implemented and, specifically, how we are going to increase  
16 the probability of getting, you know, most of our existing  
17 buildings upgraded, retrofitted for energy efficiency and  
18 other qualities over the next few years, over the next  
19 decade or so.

20           And it's a big lift. I think we all recognized  
21 that.

22           We have the experience of the ARRA programs that  
23 has been invaluable, I think, in framing where we're going,  
24 going forward.

25           But it remains something that we need to scale

1 several orders of magnitude to hit the goals that we have  
2 both -- well, just across the board in the various policy  
3 arenas in the State.

4           So, we have the long-term strategic plan, the  
5 energy efficiency strategic plan, our energy and carbon  
6 goals for residential and nonresidential. Existing  
7 buildings are really where the energy savings lie to get to  
8 those goals. I mean in lots of places, but that is one  
9 critical area that we have to address and learn how to get  
10 action in.

11           And the -- I was just very motivated. I came  
12 away from the couple days very energized and very  
13 optimistic about our ability to put together a workable  
14 plan and to engage the right people, to have stakeholders  
15 across the State from the agencies, certainly, but also  
16 from the industries helping craft a suite of policies that  
17 can work together with the PUC, particularly, but also with  
18 the Air Resources Board and get us kind of on the same page  
19 as far -- get us well coordinated within the constraints  
20 that each of those agencies have, but to put some policy  
21 recommendations out there that are workable and that have  
22 some consensus around them.

23           So, I was really, really highly encouraged by the  
24 two days and it was a really fascinating set of panels.

25           And I think there were a lot of people there on

1 the web, and in the room, pretty much packing the place the  
2 whole two days, and with a high level of engagement.

3 So, it was really good to see it in one of the  
4 first workshops that I've sort of, you know, run with.  
5 And, you know, I think staff did a really great job of  
6 putting them all together, and making sure that we kept on  
7 time, and making sure that everybody was heard at the same  
8 time, so very encouraging.

9 Going forward the action plan is the next step,  
10 so we're going to figure out the best ways to keep the  
11 panelists and other stakeholders engaged with working  
12 groups, and trying to juggle sort of a level of formality  
13 with the flexibility for engaging those working groups  
14 going forward.

15 An action plan in draft by the end of the year,  
16 some workshops around various parts of the State, and a  
17 final plan early next year that the Commission can then  
18 adopt, hopefully, by the end of the first quarter.

19 And very encouraging that the PUC was here both  
20 days and provided substantive comment all around. And I  
21 think we acknowledged both the opportunity and the  
22 challenge of the -- opportunity to engage and get it right,  
23 you know, across commission, but also some of the  
24 constraints that we have that exist in the PUC process  
25 regarding data and cost effectiveness that are real

1 constraints, and really need a lot of discussion to figure  
2 out how to engage with directly, work around, et cetera.

3 So, a big lift, but very positive step and I'm  
4 really excited to keep the sleeves rolled up and pushing  
5 that one forward.

6 So, it could be a big -- AB 758 could really have  
7 impact in the State for generations. I mean the existing  
8 buildings are going to be with us for a while, so if we can  
9 get in them it could really help the Commission and the  
10 State move towards its goals.

11 So, I wanted to let everybody know about that.

12 COMMISSIONER DOUGLAS: Well, thank you,  
13 Commissioner McAllister, that sounds -- that's a great  
14 report and it sounds like really good news. So,  
15 definitely, keep us in the loop on the progress on AB 758.

16 COMMISSIONER PETERMAN: Yeah, and congratulations  
17 on your first series of workshops.

18 COMMISSIONER MC ALLISTER: Thanks.

19 COMMISSIONER DOUGLAS: With many more to come.

20 COMMISSIONER MC ALLISTER: Yeah.

21 COMMISSIONER DOUGLAS: Speaking of workshops, I  
22 wanted to report very briefly that on September 24th we  
23 held the third in a series of workshops on the Desert  
24 Renewable Energy Conservation Plan. We had one on Energy  
25 Infrastructure Planning and the DRECP some months ago.

1 Another on durability of mitigation on public land in the  
2 DRECP, and this one was on governance costs and financing.

3           So, you know, another big topic that needed  
4 public dialogue and input and it was a really helpful  
5 workshop. So, I definitely, really appreciate the  
6 participation of a very wide range of expert stakeholders,  
7 including representatives from a number of other  
8 conservation plans in California.

9           Secondly, Commissioner Peterman and I attended  
10 and spoke at the Southern California Energy Summit in Palm  
11 Springs. So that was another really good forum, really  
12 good opportunity to both talk about the Energy Commission,  
13 some of the work that we're doing, and also connect with a  
14 lot of people doing very interesting work in just this wide  
15 variety of areas in Southern California and statewide.

16           The back of the room there was full of all kinds  
17 of alternative fuel and electric vehicles. Commissioner  
18 Peterman probably spent a little more time looking at them  
19 than I did, but I walked by and noticed a very wide and  
20 diverse range of vehicles in the back of the room there, so  
21 that was also very good to see.

22           So, with that I think our reports are done.

23           Let's go on to Chief Counsel's Report.

24           MR. LEVY: Good afternoon, I guess now,  
25 Commissioners. I don't have a report today, thank you.

1           COMMISSIONER DOUGLAS: Very good, thank you.  
2           Executive Director's Report?

3           MR. OGLESBY: I'd like to mention a couple of  
4 things to advise the Commissioners and the public that the  
5 Energy Commission staff has been working closely with the  
6 Governor's Office, as well as our sister agency, Air  
7 Resources Board, to try and address the rapid rise in  
8 gasoline retail prices.

9           Late last week prices spiked to record levels at  
10 retail, resulting from two refineries being offline early  
11 in the week, Exxon Mobile, and Torrance had a complete  
12 shutdown due to a power outage of power provided by  
13 Southern California Edison.

14           And it took some time to get restarted. It takes  
15 a while to restart a refinery stage by stage.

16           Whereas Tesoro, in Martinez, has scheduled  
17 maintenance that brought the plant down and that plant  
18 should be up and operating now.

19           That, combined with Richmond refinery being down  
20 as a result of a fire in August, compounded the situation  
21 and led to marketplace conditions that drove the prices  
22 high.

23           In response and after consultations with the  
24 agencies involved, the Governor directed the Air Resources  
25 Board to relax the rules that relate to the formulation of

1 gasoline early, essentially switching to wintertime gas,  
2 which has a higher Reid vapor pressure a few weeks early.

3           The weather's been good and it seemed appropriate  
4 for the minimal environmental risk to allow a more generous  
5 Reid vapor pressure standard. And, fortunately, that has  
6 proven to be true so far as the weather goes.

7           That action essentially allows more blended  
8 components to go into the fuel, principally butane, and  
9 should increase the volume of the supply of gas into the  
10 marketplace.

11           The spot market responded immediately by a very  
12 rapid drop in wholesale prices. However, retail prices  
13 have been -- as typically happens, retail prices have been  
14 much slower to reflect a reduction.

15           They have peaked, they have begun to decline, but  
16 they haven't dropped like the whole prices have, which is  
17 quite dramatically.

18           So, the action should result in an acceleration  
19 of price reduction over what would have happened had the  
20 refineries come back online and slowly rebuilt the  
21 inventory. This allows more inventory sooner. It also  
22 provides a little more of a cushion should something else  
23 happen in the marketplace, because it should help rebuild  
24 the inventory.

25           But we're still monitoring constantly what's

1 going on in the marketplace and seeing how effective and  
2 how swiftly the market reacts to this action.

3           The second item I'd like to report on is an event  
4 that occurred last night, near Dana Point. The Nuclear  
5 Regulatory Commission had a public forum to provide the  
6 latest information on the San Onofre Nuclear Generating  
7 Stations.

8           It was not a decision making forum, it was a  
9 matter of sharing information and it was attended by  
10 hundreds, and a very intense and long meeting. Clearly, a  
11 local constituency would prefer the power plant stay shut,  
12 but it was also balanced by about half the room that  
13 represented the union workers who very much would like to  
14 see the plants opened right away.

15           The long and the short of the hearing was to  
16 describe the status and there was a great deal of interest  
17 because the week before Southern California Edison had  
18 indicated their request to the NRC to restart one of the  
19 two units, albeit at 70 percent power, run it for five  
20 months, take it off, check out the status of the steam  
21 generators.

22           That clearly added interest and intensity to the  
23 meeting. So, there were no decisions made at the meeting,  
24 it was a community meeting to share information and I  
25 attended and served on the panel.

