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BEFORE THE  
CALIFORNIA ENERGY COMMISSION

In the Matter of: ) Docket No. 09-ALT-1  
)  
2010-2011 Investment Plan for the )  
Alternative and Renewable Fuel and )  
Vehicle Technology Program )  
\_\_\_\_\_ )

FIRST 2010-2011 ADVISORY COMMITTEE MEETING FOR THE  
ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY  
PROGRAM

California Energy Commission  
1516 Ninth Street  
First Floor, Hearing Room A  
Sacramento, CA 95814-5512

THURSDAY, FEBRUARY 11, 2010

9:00 A.M.

Reported by:  
KENT ODELL



**ORIGINAL**

COMMISSIONERS PRESENT

James D. Boyd, Vice Chair and Presiding Member  
for the Alternative and Renewable Fuel and  
Vehicle Technology Program

Anthony Eggert, Associate Member of the  
Transportation Committee

ALSO PRESENT (via WebEx)

Leslie Brown Garland  
Bonnie Holmes-Gen  
Daniel Emmett  
Harry Simpson  
Tom Cackette  
Mark Leary  
John Shears  
Rick Shedd  
Janine Sharpless  
Pete Price  
Roland Hwang  
Peter Cooper  
Sharon Baker Brownstetter  
Andy Panson  
Karing Kazarian  
Jim McKinney  
Peter Ward  
Leslie Baroody  
Chuck Mizutani  
Jennifer Allen  
Will Coleman  
R. Brooke Coleman

Public Comment

Catherine Dunwoody, California Fuel Cell Partnership  
Danielle Fugere, Friends of the Earth  
Matt Peak, Prize Capital  
Dr. Matt Miyasato, South Coast AQMD  
Jaimie Levin, AC Transit  
Richard Schorske, Bay Area EV Corridor Project  
Tom Fulks, Mighty Comm  
Charles White, Waste Management  
Mike Ryan, Green Vehicles  
Ricky Hanna, Electric Vehicles International  
Russell Steele  
Steve Echert

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FEBRUARY 11, 2010 9:20 a.m.

MS. BAROODY: Well, welcome, members of the Advisory Committee, stakeholders, and those listening in on WebEx. We are really glad you could be here. I am Leslie Baroody and I just want to thank you for taking your valuable time to be with us today, to provide input into the 2010-2011 Investment Plan. Before I continue, I just have to take care of the housekeeping items regarding this building. Most importantly, the restrooms are in the back to the left, outside in the hallway there; there is a charming snack bar on the second floor underneath the white awning; and lastly, it is unlikely, but in the event of an emergency, the building would be evacuated and you would follow us out the doors here, we would go outside to Roosevelt Park, which is across the way here, diagonally across the building. And that is all I need to say right now. I would like to turn it over right now to Commissioner Boyd. Thank you.

COMMISSIONER BOYD: Thank you, Leslie. Welcome, everybody. Sorry for the slow start, but it is always predictable, so -- electronics and getting people settled. I want to add to the welcome and thank you all for being here today, particularly to those of you who were on the Advisory Committee, those physically present in the room,

1 and those I know are going to be on the WebEx out there,  
2 listening. We will not be able to read your body language  
3 over the telephone, but plenty of opportunity will be  
4 presented to afford you an opportunity to say whatever you  
5 want on various issues. For those listening on the phone or  
6 in the audience who do not know me, I am Jim Boyd, the Vice  
7 Chair of the Commission and Presiding Member of the  
8 Transportation Committee. To my right is the second member  
9 of the Transportation Committee and one of our brand new  
10 Commissioners, Anthony Eggert. I will give him a chance to  
11 say a few words in just a moment.

12 I am sure you all have a copy of the notice for  
13 this first meeting, which gives you the purpose and reason  
14 you are here. There are familiar faces around the table and  
15 definitely in the audience. And there are a few new faces  
16 on this newly reconstituted for this second go-round on the  
17 Investment Plan for this program, and we appreciate your  
18 willingness to participate in our Advisory Committee. As we  
19 go through the agenda today, you will certainly get a flavor  
20 of the status of the last Investment Plan that you all  
21 helped us with, which was a very Herculean task and a major  
22 effort by all since it was the first we had ever done, it  
23 was also, as you know, meant to cover two fiscal years  
24 because the legislation kicked in and we had a short time  
25 before we had to start one year, so it was an interesting

1 and educational experience for all. As you will hear, we  
2 finished that Investment Plan just in the nick of time for  
3 the economy to go to heck and for the Economic Stimulus  
4 Programs to kick in. And we tried to tag on as best we  
5 could for the State of California, and you will hear more  
6 about that later on when Chuck Mizutani reviews the program  
7 activities to date. I am pretty confident that everyone  
8 will be quite pleased with what has happened to date, some  
9 may not be pleased with the speed with which things have  
10 happened, and I will blame that all on the Federal  
11 Government, it certainly was not our fault at all. But  
12 trying to piggyback with them is like trying to wrestle a --  
13 I was going to say elephant, more like a rhinoceros to the  
14 ground and actually ride it along for the fun. In any  
15 event, we are very pleased to see this program still  
16 basically intact. I am very thankful to any and all of you  
17 who have played any kind of a role in helping keep it intact  
18 in these very difficult financial times, and am incredibly  
19 pleased that we are even able to be here to discuss the next  
20 year and hopefully forthcoming years in the future with  
21 regard to this program, which we think will aid California  
22 in its drive to address climate change and energy security  
23 through energy diversity, and to help stimulate California's  
24 economy and green businesses. Green jobs go hand in glove  
25 with what we are doing, which is one of the reasons we still

1 have a program with money to spend. So welcome to all. And  
2 I will turn the mic over to Commissioner Eggert for a few  
3 words that he would like to say -- or maybe not a few words  
4 -- before we go back to Ms. Baroody to run the rest of the  
5 agenda and before I run out of a voice here.

6 COMMISSIONER EGGERT: Thank you, Commissioner  
7 Boyd. And I just want to say that I am very pleased and  
8 honored to be a participant to this Committee and to be  
9 serving with the Presiding Commissioner Boyd. We first  
10 actually met way back when you were a Junior Commissioner,  
11 maybe about nine or so years ago, and so I am happy to be in  
12 that role and I can only hope that I will be able to provide  
13 the same leadership and input that you have over the years.

14 I did want to say just a few things about this  
15 meeting and also thank all of you for being here. I think  
16 this particular program, and especially the 118 Strategic  
17 Investment Plan, really requires input from outside parties  
18 and your insights today -- I hope that you will not be shy  
19 and feel free to provide a lot of constructive input on the  
20 program, and hopefully we can take those comments and  
21 improve the final product.

22 In terms of the goals of this, as I see it,  
23 certainly we are sort of seeing a tremendous amount of  
24 activity in the transportation space, both for vehicles and  
25 fuels. It is very exciting, it is one of, I think, the

1 shining lights of our economy -- our struggling economy --  
2 that there continues to be significant investment in low  
3 carbon fuels, advance vehicle technologies, and I think over  
4 the next several years we are going to start to see a  
5 significant transformation that will diversify our energy  
6 system, reduce our dependency on currently a singular  
7 commodity, that being petroleum, and start to put us on a  
8 path towards reducing greenhouse gas emissions to meet our  
9 goals of AB 32. And, you know, just to spend a second on  
10 that, obviously we have in statute the 1990 level target by  
11 2020, but certainly both within that Bill and the Executive  
12 Order by the Governor sets out a real target, which is an 80  
13 percent reduction by 2050, and we need to really think hard  
14 of how we are going to get there and what role this  
15 particular program plays in putting us on a path towards  
16 that endpoint.

17 I would say that the amount of funds that are  
18 available within this program, if you look at them in the  
19 context of what is needed to make this transformation, the  
20 government really is a bit player in this game. The level  
21 of investment is vastly more than anything we can  
22 accomplish, and I think it would not be appropriate for us  
23 to be the sole provider of those funds, so we should be  
24 looking at how we best leverage our investment against the  
25 investment of the private sector, and really sort of figure



1 where we are going to put those monies to maximize the  
2 chance of success for the technologies that we want to see  
3 succeed.

4 I think we are going to, when we get into the  
5 discussion we will sort of maybe invite more specific  
6 discussion on certain topics, but I am very interested in  
7 not only sort of where we put our money, but sort of how we  
8 are investing it, what types of mechanisms we use to get the  
9 maximum leverage. And then, finally, I would say, you know,  
10 this is in the context of a policy overlay, obviously AB 32,  
11 the Low Carbon Fuel Standard, the zero emission vehicle  
12 standard, all of those policies exist and are pushing the  
13 industry in a particular direction, and we should again be  
14 thinking about our role in that process. So, with that, I  
15 will turn it back over.

16 COMMISSIONER BOYD: Thanks. I would like  
17 everybody now to introduce themselves. We will go around  
18 the table, and once we finish here, we will ask the members  
19 who are participating by WebEx to also chime in and identify  
20 themselves so folks have an idea of who we all are and who  
21 you all are, so during the course of the day we can put a  
22 face to the voice that is heard over the loud speaker  
23 system. So, Pete, why don't we start over here?

24 MR. PRICE: Pete Price with the California Natural  
25 Gas Vehicle Coalition.

1 MR. HWANG: Roland Hwang with Natural Resource  
2 Defense Council.

3 MS. BAKER: Shannon Baker Brownstetter with  
4 Consumers union.

5 MS. GARLAND: Leslie Garland with Western Oil and  
6 Gas Association.

7 MR. SHEDD: Rick Shedd with the State Department  
8 of General Services.

9 MS. HOLMES-GEN: Bonnie Holmes-Gen with the  
10 American Lung Association of California.

11 MR. COOPER: Peter Cooper with the California  
12 Labor Federation.

13 MS. SHARPLESS: Jan Sharpless. I am labeled  
14 Public at Large.

15 COMMISSIONER BOYD: Thank you, Jan.

16 MR. FLETCHER: Bob Fletcher from the Air Resources  
17 Board.

18 MR. KAZARIAN: Karing Kazarian, Business,  
19 Transportation and Housing.

20 MR. LEARY: My name is Mark Leary and for those  
21 that have been paying close attention, I am listed as the  
22 California Integrated Waste Management Board, but with the  
23 passage of Senate Bill 63 last session, that board no longer  
24 exists, and I am now part of the new California Department  
25 of Resources, Recycling, and Recovery within the National

1 Resources Agency, and that combination resulted from the  
2 former Waste Board Programs being divided with California's  
3 Bottle Bill Program to unify all solid waste efforts in the  
4 state under one department. Thank you.

5 COMMISSIONER BOYD: Mark, glad to see you  
6 employed.

7 MR. LEARY: Me too.

8 MR. EMMETT: Daniel Emmett, Energy Independence  
9 Now.

10 MR. SHEARS: John Shears with the Center for  
11 Energy Efficiency and Renewable Technologies.

12 COMMISSIONER BOYD: Now, would the folks on the  
13 phone, the Advisory Committee members who are participating  
14 by WebEx, would you so identify yourselves?

15 MR. COLEMAN: Will Coleman with Mohr Davidow  
16 Ventures.

17 COMMISSIONER BOYD: Good morning, Will.

18 MS. SEXTON: Chelsea Sexton --

19 COMMISSIONER BOYD: We could not hear that last  
20 person. Could you try again?

21 MS. SEXTON: Sure. Chelsea Sexton.

22 COMMISSIONER BOYD: We are still not picking you  
23 up. Is that you, Chelsea?

24 MS. SEXTON: Yes, now we hear you a little louder.  
25 Apparently the phone connection -- you are going to have to

1 work hard at being heard when you want to say something.

2 MS. SEXTON: I am used to that.

3 COMMISSIONER BOYD: Thank you. Next.

4 MR. COLMAN: Brooke Colman, New Fuels Alliance.

5 COMMISSIONER BOYD: Good morning, Brooke.

6 MR. COLMAN: Good morning.

7 COMMISSIONER BOYD: Is it still morning?

8 MR. COLMAN: Good afternoon.

9 COMMISSIONER BOYD: Anyone else?

10 MR. BONNER: This is Brian Bonner with Air  
11 Products.

12 COMMISSIONER BOYD: Brian, we are just asking the  
13 Committee members to identify themselves. Others who are  
14 listening in and want to participate will get to comment  
15 during the public comment period, but glad to hear you are  
16 there, anyway. Have we got all the Advisory Committee  
17 members, please? I am assuming we do, so to just restate  
18 and reinforce what has been said so far with regards to the  
19 Transportation Committee members here, we have before all of  
20 us a staff draft report of a product that represents, I  
21 know, a lot of effort on the part of the staff to bring to  
22 you a reasonably concrete proposal based on the experiences  
23 of last year and the experiences of finalizing a plan and  
24 having it in the public record, and having had a lot of  
25 discussion and debate and activity revolve around it,

1 modified, amplified, whatever, by of course all the economic  
2 stimulus work. So we will get into detailed comment during  
3 the course of this meeting. And as Commissioner Eggert  
4 said, we are anxious to hear from you all, appreciative of  
5 your views with regard to how we should proceed in the  
6 future, what lessons learned from experience to date, what  
7 ways can we maximize both the speed with which we are able  
8 to move the program along, and maximize the opportunities  
9 for everyone to participate in the program. And, as  
10 Commissioner Eggert said, we are really interested in the  
11 leveraging of our -- to us, it seems like a lot of money --  
12 but in the scope of things, our small, but steadfast amounts  
13 of money to help leverage other activities and  
14 synergistically maybe provide greater opportunities for  
15 meeting our program goals and objectives in really helping  
16 folks in business in California contribute to the California  
17 economy. So with that, Leslie, I am going to turn it over  
18 to you and we are actually right -- more or less on  
19 schedule. We are giving you back 10 minutes because no way  
20 could Anthony and I have consumed an entire half hour with  
21 our remarks. So, Leslie, please.

22 MS. BARODY: Thank you very much, Commissioner  
23 Boyd and Commissioner Eggert. Well, we have a very full  
24 agenda today and we want to give everybody who would like to  
25 speak an opportunity to do so. As you can see on the

1 agenda, in the morning we will have staff making  
2 presentations regarding the program's purpose, last year's  
3 investment plan, and a review of the 2010-2011 Investment  
4 Plan. And then, in the afternoon, the Advisory Committee  
5 members will have an opportunity to speak and provide input  
6 and I would keep it to about five minutes per member, and if  
7 we have time to go around again, we will do that. Later in  
8 the afternoon, about 3:30 or so, 3:40 after our break, we  
9 will invite public comment and that will be about three  
10 minutes per person. And then we hope to adjourn about 5:00.

11 We do have blue cards and those are available with  
12 Joelle, if you would raise your hand, Joelle? If you are  
13 going to speak during the public comment period, if you  
14 would see her and fill out one of the blue cards that would  
15 be great, and return it to Joelle. Thank you.

16 If you have any clarifying questions about the  
17 morning, about the process, do not hesitate to ask, however,  
18 if you have questions on the Staff Draft Investment Plan, we  
19 would prefer if you could wait until this afternoon to talk  
20 about that.

21 I am going to just quickly go over the program,  
22 spend a few minutes describing it.

23 As most of you know, the Alternative and Renewable  
24 Fuel and Vehicle Technology Program was established by  
25 Assembly Bill 118 in October of 2007, and later amended by

1 AB 109 in 2008. The purpose of the program is to develop  
2 and deploy innovative technologies that transform  
3 California's fuels and vehicle types to help attain the  
4 state's climate change policy.

5           Since 2003, key policies have been adopted in  
6 California to achieve the state's petroleum reduction and  
7 climate change goals. Prior to AB 118's adoption, Executive  
8 Order S305 had established the goal of petroleum fuel use  
9 reduction to 15 percent below 2003 levels by 2020. And in  
10 2006, AB 32 was adopted, which established the goal of  
11 reducing greenhouse gas emissions in California to 1990  
12 levels by 2020, and 80 percent 1990 levels by 2050.

13           The AB 1007 Pavley Bill adopted in September of  
14 2005 required the Energy Commission to develop a plan to  
15 increase the use of alternative fuels in California. The  
16 resulting State Alternative Fuel Plan set a goal of  
17 increasing alternative and renewable fuel use to 11 percent  
18 of on-road and off-road fuel demand by 2012, 13 percent by  
19 2017, and 26 percent by 2022. Finally, Executive Order S606  
20 established an in-state biofuels production goal of  
21 producing in California 20 percent of biofuels used in the  
22 state by 2010, 40 percent by 2020, and 75 percent by 2050.

23           In order to provide a market mechanism to carry  
24 out these policy objectives, AB 118 authorizes the Energy  
25 Commission to develop and deploy innovative fuel and vehicle

1 technologies to achieve the state's key climate change and  
2 energy policy objectives. The program spans seven and a  
3 half years and has a sunset date of January 1<sup>st</sup>, 2016. In  
4 Fiscal Year '08-'09, \$75 million was awarded, and in Fiscal  
5 year '09-'10, \$101 million was awarded. And in 2010-2011,  
6 Fiscal Year, we are requesting \$108 million. These awards,  
7 however, are to be made without adopting or advocating any  
8 one preferred fuel or technology. They also cannot be used  
9 for projects that are required by state, federal, or  
10 district rules or regulations.

11           The program addresses the state's need for  
12 workforce training for the emerging green economy and the  
13 need for job creation. And the Energy Commission must also  
14 establish sustainability goals to make sure the program's  
15 projects do not adversely impact natural resources. Getting  
16 the word out about the program through marketing and public  
17 education and outreach is essential to ensure the success of  
18 the program. Finally, there is an ongoing need for  
19 technical assistance, as well as environmental market and  
20 technology analysis to support the development of the  
21 Investment Plan.

22           The Energy Commission is required to develop and  
23 adopt an annual investment plan which determines the  
24 priorities and opportunities for program funds. This plan  
25 must include input from the Advisory Committee throughout



1 its development. The role of the Advisory Committee is to  
2 inform, advise, and make recommendations regarding the  
3 Investment Plan. The Committee is to convene a public  
4 meeting such as this one at least twice annually, and  
5 membership on the committee includes mandated agencies,  
6 groups representing mandated interests, and groups  
7 representing interests selected by the Energy Commission's  
8 Transportation Committee.

9 Just one caveat is that organizations that  
10 directly participate on the Committee may not apply for  
11 program funds. And that about wraps up the Introduction.  
12 And once again, we do appreciate your presence here. And I  
13 would like to introduce the Office Manager for the Emerging  
14 Fuels and Technologies Office, Chuck Mizutani.

15 MR. MIZUTANI: Thank you, Leslie. I am Chuck  
16 Mizutani of the Energy Commission and I guess I would like  
17 to give a year-end review on our program activities, from  
18 the use of the Fiscal Year 2008-2010 program funds.

19 COMMISSIONER BOYD: Did everybody hear Chuck? You  
20 are soft-spoken, Chuck, so make sure you are on top of that  
21 microphone.

22 MR. MIZUTANI: Thank you, Commissioner. On April  
23 22<sup>nd</sup>, 2009, the Commission adopted the first Investment Plan  
24 and it allocated \$176 million from the two Fiscal Years, \$75  
25 million from Fiscal Year 2008-2009, and \$101 million from

1 Fiscal Year 2009-2010. This is a summary of the Investment  
2 Plan that was adopted by the fuel categories with the  
3 additional non-fuel categories called Market Development and  
4 Program Support.

5           So, the year in review. Some of the funds we  
6 encumbered by way of entering into the agreements and  
7 contracts. We entered into an interagency agreement with  
8 the State Department of General Services to convert some of  
9 their basically 50 Toyota Prius to plug-in hybrid electric.  
10 That was for about \$612,000. The 50 vehicles have been  
11 retrofitted and DGS is in the process of placing those  
12 vehicles in operation.

13           In the area of workforce development, we allocated  
14 \$15 million and what we have done so far is we have entered  
15 into an interagency agreement with EDD for \$4.5 million and  
16 with the California Community Colleges Chancellor's Office  
17 for \$4.5 million. The EDD interagency, some of the funds  
18 have been offered up in our solicitation with other funding  
19 and, in particular, some of the ARRA funding, and that has  
20 resulted in six agreements with various educational  
21 entities. And right now we are in the process of developing  
22 an interagency agreement with EDP for \$6 million.

23           We are working with our interagency agreement with  
24 the Department of Food and Agriculture's Division of  
25 Measurements and Standards for \$4 million to address

1 metering and fuel quality for Hydrogen, as well as for  
2 biodiesel. The relevance of that is, in terms of Hydrogen  
3 filling stations, currently an individual cannot purchase  
4 Hydrogen fuel similar to how we do it for gasoline and for  
5 diesel, and so the funds, or the work that the Division of  
6 Measurements and Standards will be doing will allow  
7 consumers to basically purchase Hydrogen at public fueling  
8 stations.

9           And then, lastly, we have encumbered a million  
10 dollars in technical assistance for a variety of activities,  
11 one being getting expert support in reviewing of proposals,  
12 as well as providing technical assistance in terms of  
13 troubleshooting of facilities that we have funded.

14           Around the time that the Investment Plan was  
15 adopted, the Federal Government released solicitations from  
16 funds for the American Recovery and Reinvestment Act, the  
17 ARRA Funding. We saw that as an opportunity to leverage our  
18 funds in a significant manner. As a result of participating  
19 in the ARRA process, California companies were awarded \$93.6  
20 million in ARRA funds with a cost share from the Energy  
21 Commission of \$36.2 million. In addition, there are other  
22 cost shares from other entities of \$127.8 million.

23           Lastly, there were some California proposals that  
24 were submitted without our match share, and that totaled  
25 \$125.4 million.

1           This is a table that shows the amount of monies  
2 that were awarded from the various solicitations in ARRA in  
3 the various categories such as transportation education,  
4 Clean Cities, RFP which is more of a research and  
5 demonstration program, advanced battery manufacturing, the  
6 diesel and emission reduction solicitation, applied  
7 research, the ticker, which is the transit fund, and also  
8 integrated bio-refineries and then, finally, the Class A  
9 trucks -- and, I am sorry, there is one last one which is a  
10 funding effort with the National Labs in the area of algae.

11           We were moderately successful in transportation  
12 education and Clean Cities. The area of most interest to us  
13 was the advanced battery manufacturing and the integrative  
14 bio-refinery, but we were not successful at all in those  
15 areas. And the other thing, what I wanted to show was the  
16 last column, we identified -- those are ARRA awards that did  
17 not have AB 118 match. The results of the awards are that  
18 there were a number of alternative fuel infrastructure  
19 projects, as well as vehicles that will be funded. Within  
20 California in terms of infrastructure, there are two LNG  
21 filling stations and 30,191 electric charging points.  
22 Outside of California, you can see that there were other  
23 fuels that were funded in terms of infrastructure and, in an  
24 area of vehicles, the fuels that I think were the winners  
25 were natural gas and electric hybrid vehicle technologies.

1           The additional solicitations that we are  
2 undertaking to encumber the remaining of the \$176 million,  
3 currently we have solicitations that were released and, on  
4 January 25<sup>th</sup>, proposals were submitted to us and we are in  
5 the process of reviewing those proposals now. The total,  
6 about 126 proposals, again, I think in terms of ARRA, one of  
7 the takeaways from that was we were surprised, positively  
8 surprised, at the number of proposals and projects that are  
9 out there looking for funding.

10           The first of the three solicitations is the  
11 biomethane production. We have identified up to \$21.5  
12 million available for funding. Of that solicitation, there  
13 were 24 projects that were submitted for requesting a total  
14 of \$144.9 million. The second solicitation was the medium-  
15 and heavy-duty advanced vehicle demonstration solicitation.  
16 We had identified up to \$9.5 million. We received 50  
17 proposals requesting about \$147.6 million. In the medium-  
18 and heavy-duty vehicle solicitation, it is not just hybrids  
19 or efficiency technology; it does include all the  
20 alternative fuels. The last solicitation that we received  
21 proposals on was the alternative fueling infrastructure. We  
22 have identified \$13.8 million available for funding. We  
23 received 52 proposals totaling \$74.4 million. Again, there  
24 are multiple fuel types that were eligible, in particular,  
25 it is Ethanol, electric, and natural gas.

1           We are in the process of developing and releasing  
2 solicitations in these other categories. We are looking at  
3 releasing a solicitation of Hydrogen filling stations for  
4 \$22 million. We also have three solicitations that we are  
5 working with the State Treasurer's Office to also administer  
6 some of the funds. One of them is what we are calling the  
7 New Fuel Production Plant; those are basically bio-refinery  
8 plants, and the purpose of that really is to try to better  
9 utilize our in-state biomass waste resources. The second  
10 solicitation we are working on with the Treasurer's Office  
11 is the manufacturing incentives. For the most part, those  
12 probably would be advanced technology, but, in particular,  
13 electric vehicle and electric component manufacturing  
14 facilities. And then, the last one is for existing Ethanol  
15 facilities to provide a production incentive to allow them  
16 to start operating and producing in-state Ethanol. For  
17 these three, the primary reason we are working with the  
18 State Treasurer's Office is their ability to provide loans  
19 to the project proponents. In the new fuel production  
20 plants and the manufacturing centers solicitations, there  
21 will be a combination of grants and loans that would be  
22 funded for projects that would be for pre-production  
23 demonstration, as well as revenue generating proposals.

24           Other solicitations that we are working on are we  
25 are looking to send out a solicitation for propane school

1 buses. In addition, an RFP, a competitive solicitation to  
2 establish a Center of Excellence in the area of medium- and  
3 heavy-duty advanced vehicles. And then, in addition, we are  
4 developing a project with the FEB Research Center to look at  
5 the plug-in hybrid retrofit projects. And then, finally, we  
6 have about \$2 million that we want to fund various  
7 sustainability studies and, in particular, in the forestry  
8 area. And that concludes sort of the status of our efforts  
9 to award the \$176 million of the first Investment Plan.

10 COMMISSIONER BOYD: Folks, if you have any  
11 questions of Chuck, now would be a good time to raise them.  
12 Bonnie?

13 MS. HOLMES-GEN: Yeah, I am just curious if you  
14 could clarify where you have moved funding between  
15 categories from where the Investment Plan had targeted  
16 funding, you know, where you have shifted funding around and  
17 where it has gone.

18 MR. MIZUTANI: I can, but it might be better if I  
19 sort of provided -- if I had time to produce a document that  
20 would show that. There has been movement, but --

21 MS. HOLMES-GEN: I mean, is it -- Hydrogen is one  
22 key area?

23 MR. MIZUTANI: Hydrogen is one, but, in addition,  
24 on the ARRA, we received awards or those projects received  
25 awards and they are in the process of contract negotiations

1 now. And there may be movement in those projects, so there  
2 are going to be some modifications as time goes by.

3 MS. HOLMES-GEN: Can you just give some general  
4 comment on, you know, when funding was moved, for example  
5 with Hydrogen or with some of the ARRA projects, then what  
6 has been the impetus for shifting the categories, or  
7 shifting from the original targets?

8 MR. MIZUTANI: For Hydrogen, we looked at the  
9 OEM's proposed roll-outs and basically tried to match the  
10 building needs with the roll-outs and, as it turns out, the  
11 numbers have been revised downward and so we are looking at  
12 probably a lesser need right now of these for Hydrogen  
13 fueling stations, so that is one example. In terms of ARRA,  
14 there are in the negotiations some of the proposers may not  
15 be able to come to an agreement with DOE or the Federal  
16 Government in terms of the negotiations. And if that  
17 happens, if they cannot, then that money is sort of  
18 available, if you will.

19 COMMISSIONER BOYD: Jan, I think you were next.

20 MS. SHARPLESS: Thanks. It kind of goes along  
21 with Bonnie's question, but slightly different. I am having  
22 a little bit of a difficult time, and perhaps this is  
23 another question that will be hard to answer at this point,  
24 I am trying to track the money. I do not know what part of  
25 it is loans, what part of it is grants, what part of it is



1 revolving loans, so it is hard to know what the status of  
2 the fund is right at this point, even, let alone what it  
3 might be at the beginning of the next round, 2010-2011  
4 Fiscal cycle. Is there some way -- I mean, even just  
5 generally, Chuck, of telling us broad percentages maybe, or  
6 how you even determine which Fiscal mechanisms you are using  
7 in which programs, that some are more likely to be grant  
8 programs, some are more likely to be loan programs, some are  
9 more likely to be revolving -- whatever your -- do you have  
10 that information?

11 MR. MIZUTANI: So in terms of the snapshot,  
12 basically the interagencies are funds that have been  
13 encumbered. There have only been a couple of sort of  
14 results from the use of those monies, one is the Department  
15 of General Services retrofits of the Toyota Priuses, and the  
16 other one is initially --

17 MS. SHARPLESS: Was that a loan program?

18 MR. MIZUTANI: No, that was a grant. For the most  
19 part, all of our funds or solicitations will probably be  
20 grants, with the exception of the three that I mentioned  
21 with the Treasurer's Office.

22 MS. SHARPLESS: And they are the loans?

23 MR. MIZUTANI: Those are loans. And in those  
24 three solicitations, what I said was there is a combination  
25 of grants and loans. The grants, we will administer, and

1 those would be for feasibility studies or demonstration  
2 projects. Loans, we would identify if a proposal really is  
3 going to be a revenue generating -- we think the more  
4 appropriate mechanism will be a loan mechanism. And those  
5 would be administered by the Treasurer's Office just because  
6 they have the ability, the experience, and the capability to  
7 sort of manage those types of projects. And it is not  
8 necessarily the project, but rather it is the funding  
9 mechanism that they would be doing.

10 MS. SHARPLESS: Do you know at this point what  
11 percentage in the program would be for grants vs. loans, you  
12 know the programs -- 60 percent grants, 40 percent loans, so  
13 we know where the money might be coming back into the  
14 program?

15 MR. MIZUTANI: About a third of the funds right  
16 now, at least identified as possible loans, but again, it is  
17 going to be dependent upon the proposals that come into  
18 these three solicitations.

19 COMMISSIONER BOYD: Roland?

20 MR. COLEMAN: Chuck, this is Will Coleman on the  
21 phone. Is there a reason why it is just grants and loans?  
22 Is there a structural reason for that?

23 MR. MIZUTANI: No. If there are other mechanisms  
24 or other, well, other mechanisms within the statutes, we  
25 definitely would be very interested in hearing about that.

1 MR. COLEMAN: There is a number out there that  
2 they have used in other settings; I am just curious if there  
3 was a restriction there, but we can talk about that later.

4 COMMISSIONER BOYD: Roland?

5 MR. HWANG: Thank you, Commissioner Boyd. And  
6 first of all, Chuck, and the rest of the Energy Commission  
7 staff and the Commissioners, I want to congratulate you in  
8 getting some of this money out, I know it has been a very  
9 tough environment and a lot of things have been changing.  
10 And a lot of us who work very hard on the legislation are  
11 very appreciative of the fact that we are finally starting  
12 to see some of this money flow to the actual recipients who  
13 are going to make some of this low carbon future happen.  
14 Having said that, I want to raise a question that has come  
15 up within my organization and try to figure out the  
16 relationship between this program and the other activities  
17 going on at their sister agency, the Air Resources Board.  
18 Commissioner Eggert mentioned the fact that the AB 118  
19 programs, the context of these other programs, certainly the  
20 AB 1493, certain the Zero Emission Vehicle Program, and  
21 certainly the Low Carbon Fuel Standards, also. So my  
22 question, very specifically, and I know this is a little  
23 awkward a question to raise in this context, but we do have  
24 three lawsuits against your sister agency, the California  
25 Air Resources Board, and the Low Carbon Fuel Standard. On a

1 previous slide, you showed potential solicitations and  
2 agreements, and we were looking at new production plants,  
3 and Ethanol production incentives. I have no indication  
4 right now that there is a such an issue or a conflict, but  
5 the question I have for the Commission and general state  
6 policy is we clearly do not want to be working at programs  
7 and agencies working across purposes, and so the question I  
8 raise specifically is, does the Energy Commission, or the  
9 State, in general, have a policy about grant recipients of  
10 State money to participants in active litigation against  
11 California's air pollution laws, or other laws, as the case  
12 may be? Again, I have no indication that there is such an  
13 issue currently out there. I think with the SCAG Pearson,  
14 the 85 issue, it was an unfortunate issue, I have no  
15 indication, of course, that [inaudible] getting those  
16 participants were involved in a lawsuit, but my question  
17 very specifically is, is there a state policy, Energy  
18 Commission policy, about recipients of state funding to  
19 participants in active litigation against state air  
20 pollution laws? And if not, should there be one, I guess,  
21 is a question.

22 COMMISSIONER BOYD: I am sure the staff is  
23 speechless at the moment. You honestly bring up a subject  
24 that, to the best of my knowledge, has not been debated. It  
25 is not a subject that we did not suddenly become aware of in

1 the last couple of weeks, but you bring up a good point. We  
2 work very closely with our sister agency on the multiple  
3 programs and how they tie together, but to the best of my  
4 knowledge, we have not had a policy discussion relative to  
5 what has just happened with regard to the suits, and you put  
6 an interesting question on the table. Quite frankly, I  
7 guess, we never anticipated this would be a bridge we would  
8 have to cross, so we have not -- we did not, to date, even  
9 put something like that in the plan. But interesting  
10 dilemma. I do not know if Tom wants to add anything from  
11 the standpoint of -- he would not dare.

12 COMMISSIONER EGGERT: Or, I guess one suggestion  
13 could be to just take this issue under consideration and  
14 perhaps consult with our legal staff, as well as the program  
15 staff, but, yeah, and I guess the situation is not facing us  
16 today, as you said. That is something definitely worth  
17 thinking about.

18 MR. HWANG: Yes, I would appreciate that. I think  
19 it would be good to get ahead of the curve in case the  
20 situation does come up. I would hate to see a cross  
21 solicitation embroiled in a controversy associated with  
22 this, you know, potential for a conflict. So much  
23 appreciated if the Commission could look into this and tell  
24 us if there is any other precedent here, or any other policy  
25 or legal issues associated with this, it would be very

1 helpful.

2 MS. SHARPLESS: Commissioner Boyd?

3 COMMISSIONER BOYD: Yes, Jan.

4 MS. SHARPLESS: Along those lines, it might be  
5 interesting, since you are leveraging money, to see what the  
6 public policies are in a similar arena, as some of this  
7 money is being leveraged and if any have conflicting  
8 policies, or similar policies. I do not know what  
9 [inaudible]. Thanks.

10 COMMISSIONER BOYD: Yeah, and interesting. I will  
11 not speculate about the federal reaction to all of this  
12 might be, not having heard one yet, I will not even dare  
13 speculate. John?

14 MR. SHEARS: Then I guess that kind of segues into  
15 the question that I had which was, you know, I too would  
16 like to give kudos to the staff and to the Commission for  
17 all the hard work and for getting the program out and  
18 rolling. And the question that I have, Chuck, you gave us  
19 the breakdown across all the different tranches for where we  
20 had state funding, and where we were successful in garnering  
21 federal funding, and I am just wondering if you had like the  
22 two kernel numbers for, you know, we had \$176 million that  
23 we are hoping to deploy through the first round of the  
24 Investment Plan; what is the total amount of federal funds  
25 that we have been able to garner so far on that?

1           MR. MIZUTANI: There is a line -- for the federal,  
2 it is a total of \$93.6 million under the ARRA -- there is a  
3 line missing on this table, it would have shown the \$93.6  
4 under the ARRA column. In terms of the 118, it is \$36.2  
5 million.

6           COMMISSIONER BOYD: John, does that give you  
7 enough information? You have to do a little calculating on  
8 your own.

9           MR. SHEARS: Yeah, I am just curious, again, there  
10 is so much federal stimulus activity out there, we are also  
11 still hoping to leverage some of the other programs, and do  
12 we have a sense of what might potentially out there that we  
13 are going to be trying to leverage? Or --

14          COMMISSIONER BOYD: Chuck, I do recall you  
15 mentioned some of the most recent federal proposals. I  
16 guess the question is what are the plans to try to use 118  
17 money to leverage against them?

18          MR. MIZUTANI: Truthfully, it was a painful  
19 process in competing for ARRA funds. And the likelihood  
20 that we would be successful, I think, would be probably  
21 similar to what our success rate on those solicitations that  
22 we did compete on. But right now, what we are doing is we  
23 are basically putting together solicitations ready for our  
24 -- just ARRA funds, and with cost share from the applicants  
25 or the proposers.

1                   COMMISSIONER EGGERT:  And, Chuck just to clarify  
2  -- I guess my interpretation, looking at this chart, is  
3  that, you know, where we were successful as a state, you  
4  know, we were also successful in leveraging AB 118 funds, so  
5  for things like Clean Cities and transportation  
6  electrification, and is it correct to say that it is the \$36  
7  million of 118 funds leveraged, about \$93 million in the  
8  ARRA awards, and then for a total of \$127 million of both  
9  federal and private funds?

10                   MR. MIZUTANI:  Yeah.

11                   COMMISSIONER EGGERT:  Is that -- okay.  So for  
12  those particular programs, I would say we were quite  
13  successful.  For some of the other programmatic areas like  
14  advanced battery manufacturing, the state, I do not think,  
15  got hardly anything, and therefore there was no money to  
16  match on those programs, as well.

17                   COMMISSIONER BOYD:  Pete?

18                   MR. PRICE:  I have a question that I think goes  
19  back to what Bonnie was asking, and this may be captured in  
20  the discussion of the new Investment Plan because it deals  
21  with that, as well.  But you know, in the text of the new  
22  Investment Plan, I think I was able to ferret out how much  
23  money from the current plan had been spent and how much had  
24  not been spent, but my question is, it seems it would be  
25  helpful to have just a simple table with the first



1 Investment Plan and the second Investment Plan, and showing  
2 how much of the funds from the first Investment Plan was  
3 either spent or, if not, is it rolling over and creating  
4 part of the total we now see in the second Investment Plan?  
5 Or is all the money in the new Investment Plan "new" money  
6 because these are fee-generated, it keeps rolling in? So  
7 just a '08 through '10, and a '10-'11 comparison would be  
8 helpful.

9 MR. MIZUTANI: Okay, just a note, Pete. The \$108  
10 million in this Investment Plan is new, it is not -- it does  
11 not contain any of the 2008 monies.

12 MR. PRICE: Right. What -- understood, but we  
13 have not -- certainly have not spent all the money from the  
14 first Investment Plan, so that is what I am wondering, how  
15 that is being accounted for.

16 MR. MIZUTANI: Right, point well taken.

17 MR. PRICE: Yeah, okay.

18 MR. EMMETT: There is a table in your presentation  
19 where it lays out the funding for the first Investment Plan.  
20 That would definitely benefit by a second column that just  
21 showed the anticipated allocation by the end of this  
22 Investment Plan. So I am not sure if that is something we  
23 could see today after a break or something, or if we can see  
24 at a later date, but that, I agree, would be helpful.

25 COMMISSIONER BOYD: Anthony and I were just

1 talking, I mean, we have seen said tables internally and I  
2 would think the staff could generate something and have it  
3 available during the course of this meeting. I am a little  
4 surprised, frankly, that we do not have this side by side  
5 comparison that we have talked about internally, and deal  
6 with internally quite a bit. Building on -- I mean, just  
7 from the perspective of the Commissioners on the Committee,  
8 and kind of speaking to Pete's issue, the first Investment  
9 Plan monies are all, you know, programmed to be utilized and  
10 spent, there is no roll-over, as Chuck said, that what we  
11 are looking at now is the next tranche of money that the  
12 budget request calls for. And because we have the benefit  
13 of a two-year encumbrance period, which is atypical in state  
14 government, you know, we do not have to play the roll-over  
15 game, etc., etc. So we are going to make sure that all the  
16 money that has been budgeted does get spent. I am sure some  
17 of the staff's difficulty with answering some of the  
18 questions, same difficulty we have had internally, is the  
19 delay caused by trying to figure out how to match -- provide  
20 match for ARRA dollars, and the slow process of the federal  
21 system in, you know, making their proposals such that we can  
22 figure out how to do the match, which has left us farther  
23 behind schedule than we would like to be. Sometimes I  
24 wonder if the juice was worth the squeeze in terms of the  
25 delay we purposely put in place to try to maximize the ARRA

1 dollars was worth it, but I guess we did get dollars; we had  
2 great disappointments, and we did not like the rumors  
3 swirling around Washington about "California being bankrupt,  
4 so don't rely on them," but nonetheless, you know, I think  
5 you could almost correlate that discussion with where there  
6 are some goose eggs in some of the columns, but I cannot  
7 prove any of what I just said, but I can feel it in my gut.  
8 In any event, as far as we know on policy perspective, and  
9 Chuck, Peter, Mike, anybody can jump to this, you know, all  
10 the money that was scheduled in the Investment Plan is going  
11 to get out the door in the time required to see that the  
12 money does not fall by the wayside. And secondly, just,  
13 again, staff can generate a table, I mean, we look at this  
14 quite often, and oftentimes I have wondered were we straying  
15 significantly from the original Investment Plan that you all  
16 saw and that the Commission adopted, you know, are we badly  
17 straying, or straying very much, in order to do this ARRA  
18 match? And quite frankly, my recollection -- and I guess if  
19 we get a chart today, hopefully it confirms what I am about  
20 to say -- but my recollection is that, categorically, other  
21 than Hydrogen, there was not a significant -- or there was  
22 not much of any straying from the original amounts that were  
23 shown in the Investment Plan, but hopefully staff will make  
24 an honest person out of me by producing a report that says  
25 that. The only thing I know the report will show is that

1 some of the Hydrogen money was, therefore, moved to other  
2 categories where there was a greater opportunity to get the  
3 money used right away while we and the Air Board struggled  
4 mightily ever since we last met in this room to ascertain  
5 where the Hydrogen program is going, and how fast it is  
6 going to materialize, and so on and so forth, which led to  
7 the final recommendation for this year, not to say there is  
8 not money as you see in the plan for future years in that  
9 area, but I do not want to get ahead of the later discussion  
10 about the next plan. But can I get a head shake from Chuck,  
11 Leslie, Mike, Peter, somebody, that indeed we can produce  
12 the side-by-side chart real quick? Probably just pull it  
13 off your computer somewhere. All right, I got a lot of head  
14 shakes. Tom?

15 MR. CACKETTE: Well, that is exactly what I know  
16 we were looking for, and if you could go back to the third  
17 slide of your presentation, the summary of -- go back -- it  
18 is the one that shows the allocation plan the first year --  
19 yeah, that. I guess to put a fine point on it, I understand  
20 and appreciate the fact that this is in transition and that  
21 you do not know exactly what is going to happen with the  
22 ARRA readjustment and with the results of the solicitation,  
23 but the information I would like would be two more columns  
24 on this chart, the second column would be what has been  
25 spent so far for each one of those categories, and you could

1 define "spent," I do not know what that means, whether it is  
2 your solicitation, or actually committed, or whatever, but  
3 where you are planning from the existing solicitations to  
4 spend the money; and then, for the money that is leftover,  
5 where do you think it will go. That money, I think, has to  
6 be committed by the end of the fiscal year, right? Or only  
7 part of it?

8 MR. MIZUTANI: Seventy-five.

9 MR. CACKETTE: So where you think it is going to  
10 go. That would give us, you know, sort of the projected end  
11 point for the first Investment Plan, so that we could see  
12 what really has changed and if it is what you said changed,  
13 it will be pretty much the same. But I guess that was one  
14 of -- that seemed like a very critical piece of information  
15 that we do not have. But, for me, that simple table would  
16 solve the problem.

17 COMMISSIONER BOYD: John, or Pete, let me give  
18 someone a chance who has not had a chance to say something.

19 MR. COOPER: Peter Cooper with California Labor  
20 Federation. I am also active with the Green Economic  
21 Stimulus Coalition, which is a group of labor, environmental  
22 and community groups looking at stimulus money. And, for  
23 both groups, I can say that we were very pleased with the  
24 way the Energy Commission had an open process and has been  
25 able to leverage some of the work force and job training

1 money with 118, with some of the programs that are effective  
2 here in the state. So just kind of kudos and I appreciate  
3 the open process in that regard. I do have one comment to  
4 build on something that Roland had mentioned regarding how  
5 funding is used and policies going forward, given that this  
6 is a multi-year program. I just kind of wanted to put this  
7 on the table as something to consider in the next coming  
8 weeks for the Advisory Committee. Is there a policy, is  
9 there language in the plan regarding applicants that come  
10 back to the Energy Commission requesting additional funding?  
11 I think it would be worthwhile to consider requiring such  
12 applicants to -- and they maybe already do, you can probably  
13 let me know -- describe how they have used the money, you  
14 know, how they have been accountable for the funding that  
15 has been provided to them. So I just wanted to put that on  
16 the table for further discussion later on.

17 COMMISSIONER BOYD: Chuck, would you want to  
18 respond to any of that, or table it for the later on  
19 discussion?

20 MR. MIZUTANI: Late on, in terms of any grant  
21 agreement or contract agreement, that is one of the sort of  
22 deliverables is what was the results of the funds, you know,  
23 was it successful and what could we learn from it. So that  
24 typically is one of the things that we would require in  
25 terms of closing out a contract.

1           COMMISSIONER BOYD: John. And folks on the phone,  
2 you are going to have to chime in because there is no way  
3 for me to tell if you have got your hands raised or not, so  
4 feel free. We will accommodate anybody out there on the  
5 Advisory Committee who wants to ask a question. John  
6 Shears.

7           MR. SHEARS: Yeah, I was not sure if I should  
8 raise this point or, when we move forward, to talk about the  
9 2010-2011 Investment Plan, but I know the Energy Commission  
10 and the Committee and all of the stakeholders are all  
11 working together and going through sort of a learning  
12 process and I just was curious, I noticed that in the first  
13 round of solicitations, you know, there were 14 criteria  
14 that were used to evaluate the proposals and, by my  
15 calculations, you know, to go with the nomenclature in the  
16 proposal guidelines, the sustainability evaluation criteria  
17 in the first round of solicitations accounted for 50 percent  
18 of the proposal scoring, and that the new round of  
19 solicitations that went out in November, it seems like the  
20 sustainability, greenhouse gas, and environmental criteria  
21 have dropped to -- depending on how you slice and dice and  
22 how you use the weighting factors or not -- 20-24 percent at  
23 a minimum, somewhere maybe slightly above that when you  
24 factor in some of the other criteria have some environmental  
25 aspects, and I was just curious as to what thinking was

1 involved in making those adjustments because I think, going  
2 forward, when we talk about the 2010-2011, and the ongoing  
3 program, I think we are going to want to think about any of  
4 these kinds of adjustments and possibly even a strategy for  
5 how those criteria are used as projects mature. So I do not  
6 know if that is germane now, or if we should tee that up to  
7 discuss a little bit later, but I just wanted to raise that.

8 MR. MIZUTANI: Jennifer Allen will address that.

9 MS. ALLEN: On the first solicitation, the  
10 technical portion of the criteria was based on whatever the  
11 Feds were requiring for technical. So our solicitation  
12 appeared to be skewed heavily on the sustainability, just  
13 because we were relying on the technical portion to be  
14 whatever the Feds required. I will guarantee you that you  
15 will never see another solicitation like that again, so from  
16 the -- now our solicitations have our own technical portion  
17 associated with it. So it appears as if the sustainability  
18 portion is now a smaller percentage of the entire criteria  
19 because we have our own technical in the solicitations going  
20 forward. In that very first one that was tied to ARRA  
21 funding, because we were tying to solicitations prior to  
22 them coming out, we had no idea what the technical  
23 requirements were going to be. We basically just said,  
24 "Here is our criteria that are going to be overlapping and  
25 superimposed on the Federal technical criteria," and that is



1 why it appears to be skewed.

2 MR. COLEMAN: This is Will Coleman. And just to  
3 follow-up on that question a little bit and tie it back to  
4 the evaluation, you know, I agree with the folks who would  
5 like to see a tracking of the dollars, that would be nice.  
6 But in terms of going one level deeper, is there a score  
7 carding system that we can see, or that is being used to  
8 evaluate the impact of the dollars as they go out? So, I  
9 would imagine the criteria is the front-end filter, but on  
10 the back-end, it would be nice to see if we had some sense  
11 of the efficiency of the dollars going out, so what kinds of  
12 private investment has been leveraged, but also on the  
13 sustainability issues whether it is carbon reductions or  
14 anything else, what the impact has been. Is that something  
15 that is part of the process already or could be developed?

16 MR. MIZUTANI: In terms of the scoring criteria,  
17 part of that is what we score on; in going forward, once we  
18 have an award, there will be a negotiated contract, we will  
19 be identifying sort of data that the project proponent would  
20 have to either collect and provide to us in order for us to  
21 ascertain the progress and success of the project.

22 MR. COLEMAN: And what are the metrics that that  
23 is typically based on?

24 MR. MIZUTANI: Well, the first one, it would be in  
25 terms of what the output would be from the project, so if it

1 is gallons dispensed, or the number of vehicles used, or  
2 miles driven, we would probably use that as one of the  
3 markers in terms of how much money was being provided. In  
4 addition, you know, there are other markers such as  
5 emissions and things like that.

6 MR. COLEMAN: I think at some point it would be --  
7 I do not know exactly how that would roll up, but it would  
8 be nice to be able to see that evaluation, so not on an  
9 obviously project-by-project basis, but just on a roll up  
10 basis in terms of the impact of the dollars going out the  
11 door and the effectiveness of those dollars.

12 COMMISSIONER EGGERT: So I guess maybe to  
13 translate that, for example, is there an expectation as part  
14 of the reporting requirement of the use of the funds, that  
15 there be sort of an as-built assessment of actual greenhouse  
16 gas emissions reduced, or fuel saved, specifically -- in a  
17 quantitative sense.

18 MR. MIZUTANI: Specifically on certain greenhouse  
19 gas emissions, since that is the purpose of the program,  
20 that definitely is going to be information that would be  
21 tracking and required of the project proponent -- before as  
22 well as after.

23 COMMISSIONER EGGERT: John.

24 MR. SHEARS: Just a follow-up, because I am not  
25 quite sure about the mechanics again on the shift and the

1 scoring. So, granted, the hope was to get a lot of matching  
2 federal funds and -- but I am still not quite sure how, you  
3 know, if the Energy Commission had 50 percent of the  
4 criteria or the scoring for the proposals being related to  
5 environmental performance criteria, I am still not quite  
6 sure what the mechanics -- how the mechanics on that relates  
7 to the drop-down when it goes to a completely non-leveraged  
8 round of funding. Are you saying that -- so 50 percent of  
9 it was if you managed to get federal funds, you got through  
10 the door, and then from this it seems like you had these  
11 other 50 percent that were now Energy Commission criteria,  
12 and so if you got above 20 percent to get the 70 percent  
13 score, or whatever, en toto, then you were in? Or I am not  
14 quite sure how that relates to them dropping it down to 24  
15 percent in an Energy Commission only context.

16 MS. ALLEN: The percentages are an artifact  
17 because what we did was we had regulatory requirements that  
18 said a project had to meet one or more of certain things.  
19 We knew that those regulatory requirements were not going to  
20 be involved with the scoring criteria that the Feds were  
21 going to be putting out with their solicitations. So what  
22 we did is we just made sure that our scoring criteria had  
23 what our regulatory requirements were. As far as the  
24 technical portion of the project, whether or not it was  
25 technically feasible, whether or not it made sense

1 economically, whether that the company was sound, we relied  
2 on the federal solicitation and the federal criteria to weed  
3 those parts out. And so all we did was we superimposed our  
4 regulatory requirements on top of the Feds' scoring  
5 criteria. That is why it appears, percentage-wise, to be  
6 very high, but that is an artifact of us just focusing on  
7 what we had to accomplish with AB 118 funds. Now, from  
8 going forward, our new solicitations, we are having to also  
9 now look at all of the things that we relied on the Feds for  
10 in the previous solicitation. We have gone back to our  
11 standard operating procedure, which is we look at the  
12 company, we look at the technical aspects of the project, we  
13 look at all of these things that we normally would have  
14 covered. So the ARRA solicitation was unique and it was  
15 very -- the solicitation was very specific to a situation in  
16 which we were basically piggybacking on Federal  
17 solicitations.

18 COMMISSIONER BOYD: Jan.

19 MR. SHEARS: Okay, I will have to follow-up with  
20 you because I am still not getting how the filters worked on  
21 this, so --

22 MS. SHARPLESS: I think one of the messages of  
23 this questioning is that, from someone who is trying to  
24 apply for Federal money, or state money, it is very time  
25 consuming and costly to put together a proposal and go

1 through the process. And when you put two governmental  
2 processes together, it really does not surprise me that we  
3 were as unsuccessful in some of those categories as we were.  
4 And I think we would behoove maybe some back room discussion  
5 about what the take home lessons were on why those were not  
6 successful. In some states, they were, and here they were  
7 not. But to an organization that is trying to get money out  
8 the door, and looking at staff restrictions and limitations,  
9 to be aware. And I think Chuck's answer to some of that  
10 was, you know, is the juice worth the squeeze, basically,  
11 because it takes a lot of time. And even after you are  
12 granted, then you have to go through yet another  
13 negotiation, and you have to go through accounting  
14 procedures to make sure that you can account for the federal  
15 and state money. So it is very difficult for people in the  
16 outside world to come in and apply for this money, even  
17 though it seems like there is money out there, you know, it  
18 is -- you have to kind of judge whether or not you are going  
19 to be successful at getting this money and if it is worth  
20 it. But to the other point of criteria, I think if it is  
21 loan program, there is a different set of criteria when you  
22 are looking at these programs about whether or not, you  
23 know, you are going to get return on investment and those  
24 kind of criteria. When it is a grant program, I think it is  
25 a different set of criteria, but I do not hear the

1 differentiation being made. And perhaps it is because we  
2 are not asking those questions of the staff. But depending  
3 on what the program is, and to the point, I mean, I totally  
4 agree it is kind of confusing to figure out where we are and  
5 how much we have, and how much we might have. But you have  
6 to add on to that, you know, are we going to get some of it  
7 back through some loan programs? Over what period of time?  
8 What percentage of that is going to be part of the program?  
9 Or is it all just going to go out the door as a grant and we  
10 will just continue to have the \$100 million, \$100 million,  
11 \$100 million? So it is kind of hard to react to it from my  
12 level without more information.

13 COMMISSIONER EGGERT: Jan, you just brought up a  
14 thought in my mind that, having been involved in this, it  
15 seems like the only thing more difficult than giving away  
16 money as a government agency is being the recipient of  
17 government money. And then I guess I would invite any  
18 comment in terms of what we might have learned from the ARRA  
19 effort, in considering that there could be future Federal  
20 stimulus solicitations, how we might apply that to the next  
21 round.

22 MR. MIZUTANI: My takeaway from this discussion is  
23 that it would be a good idea to incorporate these types of  
24 questions in coming back and showing what has happened with  
25 the funds that we have spent, as well as not only to the

1 Advisory Committee and the Commissioners, but also as input  
2 to the next Investment Plan. So the takeaway is basically  
3 this would be a good thing to do in terms of evaluation,  
4 program evaluation.

5 COMMISSIONER BOYD: Roland.

6 MR. HWANG: Okay, just very quickly, I just want  
7 to follow-up John's questioning about the scoring system. I  
8 guess I am still very confused, and my understanding may be  
9 not perfect, or I may not have my facts right, but I guess I  
10 am a little confused about the scoring system because, from  
11 what we had seen in the first solicitation, April 22<sup>nd</sup>, there  
12 was a very elaborate scoring system which we actually liked  
13 very much -- very elaborate, but a transparent system, less  
14 subject than, I think, the current solicitation dated  
15 November 25<sup>th</sup>. And, as John said, the net effect of these  
16 solicitation changes in the scoring has been to diminish  
17 greenhouse gas sustainability weighting; furthermore, I  
18 think it also creates more subjectivity and I also think  
19 that is an issue of transparency. I am not sure if  
20 applicants can really understand how these things are going  
21 to be scored. From our perspective, the original ARRA  
22 solicitation scoring actually was something that we were  
23 comfortable. The current, November 25<sup>th</sup>, scoring is  
24 something which, as far as I am aware of, we had not been  
25 consulted with -- my organization has not and we have been

1 working with Energy Commission staff -- in terms of the  
2 changes between April and November. And there could be  
3 excellent reasons for why the change occurred. I would say  
4 that we prefer very strongly the April, the original ARRA  
5 scoring. So I think -- it may be greatly appreciative --  
6 and I do not understand why between ARRA, the original, from  
7 our perspective, better scoring system, why we have come to  
8 a system which seems from our perspective not nearly as good  
9 for transparency and environmental sustainability of  
10 greenhouse gases. So, I mean, one question or one request,  
11 perhaps, would be just to kind of clarify what the facts  
12 are, what the different systems are, what system are we  
13 going to move forward with, because I guess we are not  
14 comfortable with the scoring system of November 25<sup>th</sup>. But we  
15 could be if we understood it better. I mean, could staff  
16 come back this afternoon like they have with the  
17 distribution of the funding, and better explain to us the  
18 scoring systems -- the two scoring systems -- why they  
19 changed? Because, from my perspective at least, these are  
20 two very key aspects of the 118 program here, one is the  
21 allocations, and this is something we talk about within the  
22 Investment Plan, but from my perspective, the allocations  
23 and the scoring system, combined, those two things combined  
24 really are kind of the key elements of how this program is  
25 going to apportion funding to the right kind of projects



1 from our original envisioning of the 118 legislation. I  
2 think this is a very critical aspect, the scoring, I think  
3 it is very critical to gain some transparency and also gain  
4 some kind of understanding with the next round of  
5 solicitations what the scoring system is going to look like,  
6 and what is the opportunity for us to work with the staff to  
7 look at reverting back to the April, quite frankly, the  
8 April 2009 scoring system.

9 MR. MIZUTANI: I do not know if we would be  
10 efficient enough to turn it around this afternoon, so an  
11 alternative suggestion would be, if we could provide sort of  
12 a write-up that describes both of them and, in addition, we  
13 would be available for further discussion. But if that  
14 would be satisfactory as an alternative?

15 MR. HWANG: As long as it happens very quickly, I  
16 think that, you know, if you are not able to do that today,  
17 if we could have a follow-up meeting very quickly on this  
18 with the right folks at the table, we would be very  
19 appreciative.

20 MR. SIMPSON: Would this be shared with all  
21 committee members, this write-up on the sort of scoring  
22 criteria?

23 MR. MIZUTANI: Yes.

24 MR. SIMPSON: By the way, this is Harry Simpson  
25 with Simpson, Renewable Energy and California Biodiesel

1 Alliance. I would like to say I echo the comments made by  
2 Roland and support those. And at some point, I do not know  
3 if we could maybe have a quick review of what the primary  
4 criteria were that were applied to the allocations of the  
5 first Investment Plan and whether these will change, or what  
6 criteria is being used in the second plan.

7 MR. MIZUTANI: I am sorry, there was a question of  
8 me and I did not hear it.

9 MR. SIMPSON: My question is, could we review sort  
10 of the criteria that have been applied, you know, just go  
11 through how you guys -- what were the primary criteria that  
12 was applied to determining the allocations between, you  
13 know, electric drive, Hydrogen, Ethanol, etc., in the first  
14 Investment Plan and in the second Investment Plan?

15 MR. MIZUTANI: What was the criteria?

16 MR. SIMPSON: Yeah, I mean, so, for example, you  
17 know, the Draft 2010-11 plan, it states that the CALCARS  
18 model was one of the core analyses used to determine the  
19 Investment Plan for a possible scenario for introduction and  
20 use of alternative and renewable fuels in advanced vehicle  
21 technologies. But, you know, I see a disconnect, for  
22 instance, between looking at getting alternative fuels and  
23 renewable fuels into the market and looking at GHG intact  
24 vs. the first Investment Plan on how things were actually  
25 allocated. I mean, for instance, if you look at -- if GHG

1 reduction was a major determining criteria in the  
2 allocations, you know, how does Hydrogen -- and I am using  
3 prior to LCFS data for actual lifecycle carbon or GHG  
4 reductions, you know, how does Hydrogen end up with 26  
5 percent of the allocation in the first funding -- in the  
6 first Investment Plan when it has got a lifecycle carbon  
7 reduction of roughly -- I mean, it is showing on LCFS  
8 according to CARB, it is 76 grams per mega joule, which off  
9 of a petroleum base line of 94.7 or whatever it is, it is  
10 not a hugely significant reduction relative to some of the  
11 other categories.

12 MR. WARD: If I could comment, Mr. Simpson. In  
13 establishing the --

14 COMMISSIONER BOYD: Who is speaking?

15 MR. WARD: Peter Ward, your Manager for AB 118.  
16 We took a look at the goals we have for GHG reduction and  
17 also the available opportunities for our funding. Those two  
18 were meshed together to come up with the values that we have  
19 with funding allocation. I would also like to address maybe  
20 Roland's question briefly, we will get back to that in a  
21 more detailed manner. I would like to say, we were catching  
22 up with a train that was moving fairly quickly and the  
23 Federal solicitation did not incorporate much of the  
24 sustainability and other environmental criteria that are in  
25 our statute. So we caught up with theirs and added ours

1 because they already had their technical review criteria  
2 established. And it had to be successful at the Federal  
3 level for us to fund it, to provide our matches. So, as we  
4 go forward with our next solicitations and the ones that we  
5 just received, it may appear to be lesser than that because  
6 the Federal did not have any and we caught up with it, but  
7 we have tried to be true to the statute in all the 11, 12  
8 criteria that are in the statute, and include a guide to  
9 criteria for that, for every solicitation and the weighting  
10 therefore. So we are trying to be true to our origins and  
11 not to the origins of the ARRA solicitations.

12 MR. HWANG: I think that responds, Peter, and it  
13 probably would be good if we could just follow-up with staff  
14 --

15 MR. WARD: Sure.

16 MR. HWANG: -- to have a more detailed discussion  
17 because I think there is probably just a lack of  
18 understanding on each side about what transpired and then  
19 why the system looks like it currently does, and so maybe we  
20 can reach a better understanding after more detailed  
21 conversations, and we look forward to that.

22 MR. WARD: Okay, and in answer to Mr. Simpson's  
23 question, yes, we are trying to stay true to the purposes  
24 and the primary goals of the program as we go forward. And  
25 I think our share of solicitations reflect those criteria

1 that are in our statute better than the ARRA solicitations  
2 did.

3 MR. HWANG: Okay, we look forward to that  
4 conversation to see how those match.

5 MR. COLEMAN: Brooke Coleman on the phone.

6 COMMISSIONER BOYD: Yes, Brooke.

7 MR. COLEMAN: I have got a question for you, just  
8 following up on this, but not in greater detail. It seems  
9 there is concern about the formula for making decisions,  
10 which, of course, has been applied to the DOE process, as  
11 well, to ironically some of the concern about the criteria  
12 for not receiving or receiving awards that DOE could  
13 replicate itself here. Is there an opportunity and a remedy  
14 for this to -- or a potential opportunity and a remedy for  
15 this -- to spend some of the dollars, the 118 dollars, on  
16 this process? In other words, creating not just a gap  
17 analysis that I know TIAX did, but taking it a step further  
18 and helping to -- or going through the process of creating a  
19 formula or a metric and doing a tipping point analysis on  
20 some of these options that we have, moving forward, so that  
21 we can give applicants more guidance moving forward, as  
22 opposed to allowing the applicant to sort of define what the  
23 opportunities are.

24 COMMISSIONER BOYD: Chuck, my initial reaction,  
25 and both Commissioner Eggert and mine, are that, didn't that

1 end? Don't you have an expenditure program in the next  
2 Investment Plan -- we are not there yet -- to do exactly  
3 what I just heard from, well, in fact Commission Eggert is  
4 pointing to page 79, the bullet in the middle of the page  
5 that basically says all those things, so I think you can  
6 respond yes, but I do not want to put things in your mouth.

7 MR. MIZUTANI: Yeah, there is, and I think one of  
8 the discussions or comments that I think we were looking  
9 for, also, are there other opportunities or other needs that  
10 would improve the use of the funds. So this would be a good  
11 example of that kind of comment or input.

12 COMMISSIONER BOYD: Thank you. Bonnie and then  
13 Pete.

14 MS. HOLMES-GEN: Thanks, Commissioner Boyd. And  
15 thank you for the helpful feedback on the scoring criteria  
16 that I am hearing you say that you are trying to get back to  
17 the criteria that was earlier adopted, so I appreciate that.  
18 And if it is possible today, it would be helpful at some  
19 point during the day just to get a sense if you are clear on  
20 it, as to what percentage or what portion of the scoring --  
21 what value would be given to the sustainability criteria in  
22 those non-ARRA projects going forward, if that is possible.  
23 I will check in with you later about that. And I just also  
24 wanted to mention, there has been some discussion about  
25 evaluation of projects that are being funded and I just

1 wanted to remind all of us that the Energy Commission,  
2 according to the statute, is in the next year -- not this  
3 year, but the next year -- going to be conducting an  
4 evaluation of the projects that would include a listing of  
5 the projects and the expected benefits of the projects in  
6 terms of air quality, petroleum use reduction, greenhouse  
7 gas emissions reductions, technology advancement, and  
8 progress toward achieving benefits in all these areas, and  
9 the overall contribution of the projects to our promoting  
10 the transition that we all are desiring to see toward clean  
11 alternative fuels and reduced petroleum dependency. So I  
12 think this is a helpful process that was built into the law,  
13 and since we have been discussing about how we are going to  
14 be tracking these projects, I thought it would be helpful to  
15 bring that up. I do not know if the Commission has any  
16 comments on that, but that is supposed to be part of the  
17 IEPR Report in 2011.

18 COMMISSIONER BOYD: I saw a head shaking from the  
19 staff, but that does not register very loud, so if you could  
20 just confirm yes?

21 MR. MIZUTANI: Yes, thank you, Bonnie, for  
22 identifying that. We do for 2011 have to do a program  
23 evaluation for the 2011 IEPR update, and there is a  
24 possibility that, even beyond that, it would be a good thing  
25 to have a program evaluation on an annual basis.

1 COMMISSIONER BOYD: Pete Price.

2 MR. PRICE: Two questions. Not going into the  
3 criteria that the Feds use for ARRA funding, but I am just  
4 curious because I have heard it said -- and I do not know if  
5 this is the case -- that the Feds did overlay those criteria  
6 with a -- I guess a proportionality test or something, in  
7 other words, the money was going to be spread around the  
8 country in some kind of rough proportion to population, or  
9 some other metric. Is that the case? And my second  
10 question is, I could be wrong, but I am assuming that  
11 California is one of the very few states, but just  
12 coincidentally while this ARRA funding was rolling out, was  
13 putting up significant funds to promote alternative -- state  
14 funds -- to promote alternative fuels. And I am wondering  
15 if the Feds looked at that as a good thing and made it more  
16 likely they liked our projects, or perversely said,  
17 "California has got money, we are going to help the states  
18 that do not," or were they indifferent to that?

19 COMMISSIONER BOYD: Mr. Ward, do you want to  
20 venture into this one?

21 MR. WARD: Well, I think it might be said --

22 COMMISSIONER BOYD: But watch the profanity that  
23 we all used inside the walls of this building as we wondered  
24 if the juice was worth the squeeze, so to speak.

25 MR. WARD: Yeah, I will try and give a calm



1 response to our reaction from the Federal Government's  
2 evaluation of the proposals. I think in some cases they did  
3 a fair and equitable job, you know, I think we stood a very  
4 good chance of leveraging our funds for the first time in  
5 many many years that I am familiar with, we did have state  
6 match. I think in some areas of the solicitations, it was,  
7 as you say, possibly they were thinking, "Well, California  
8 has money, let them go ahead and spend their money." In  
9 other areas, I think it was completely disregarded. And it  
10 is very very unfortunate, perhaps, in one of the largest  
11 categories, and I think that was a mistake, or maybe an  
12 error in their judgment. And whether or not ARRA funds were  
13 solvent has come to light from some of the debriefings from  
14 some of the ARRA participants that we were willing to  
15 provide match to, they have confirmed that basically it was  
16 disregarded, or ARRA funding was looked askance. I have to  
17 say, I did not receive any phone calls inquiring from DOE or  
18 any other federal agency as to whether or not our funding  
19 was solvent. I certainly would be anxious to take those  
20 calls, but they never came. As a matter of fact, we did not  
21 get phone calls returned very often, so -- it is very  
22 disconcerting as not only citizens of California, but a  
23 citizen of the United States, that our efforts here were a  
24 bit disregarded and, in some cases, totally disregarded.

25 COMMISSIONER BOYD: And we will not carry it much

1 further than this, but be assured that at the very highest  
2 levels of this state, to very high levels in the Federal  
3 Government, there were inquiries, if not protests lodged  
4 about what went on. But be that as it may, we took what we  
5 could get and then went back to, okay, let's get our way  
6 behind schedule 118 program rolling with its, I thought,  
7 better criteria and more meaningfulness to the state.  
8 Frankly, one of my initial thoughts was to just flop down  
9 the Investment Plan in front of the Secretary and say,  
10 "There's \$176 million in here and there are a lot of rigid  
11 programs, just match us dollar for dollar and set us loose  
12 and we will deliver you a good program." But, no, we had to  
13 go through all the hoops. And they had to invent hoops as  
14 they were going along. Sometimes they wrote checks and  
15 said, "Don't run with it because we haven't got the criteria  
16 figured out yet," etc. etc. So, you know, I have gone  
17 farther than I should have in a public forum, but we were  
18 not, you know, this was not a happy place -- over the  
19 incredible amount of work that this entailed. And Jan  
20 Sharpless may be right that it may have frustrated a lot of  
21 people. Although, quite frankly, we were heavily over-  
22 subscribed in people willing to give us, you know, if we had  
23 to deliver on all the potential commitments, we could not  
24 have done it, but the Feds took care of that problem big  
25 time. But in any event -- and I knew all this, you know,

1 that had transpired was going to complicate life in this  
2 first meeting, most likely. And indeed that is true  
3 because, you know, if we cannot figure out what is going on,  
4 how can we expect you sometimes to figure out what is going  
5 on when you volunteer your time to help us through this  
6 process. So hopefully when we get around to discussing the  
7 next Investment Plan, which will be 100 percent state  
8 controlled, so to speak, we will get the train totally back  
9 on the track it is intended to be on. I mean, we got more  
10 money than we would have otherwise if had just said thanks,  
11 but no thanks, as some states have done, but you can  
12 understand why some people say, "We don't want anything to  
13 do with this Federal money, it is too complicated."

14 MR. PRICE: Jim, can I just -- I did not hear  
15 whether they were also using this rule of proportionality  
16 around the spreading the money around.

17 COMMISSIONER BOYD: They would deny it. They did  
18 deny it. You just pick up the paper and watch where money  
19 was spread and that makes you curious, but they claim and  
20 can prove, theoretically, a very allegedly transparent  
21 evaluation system. We think we found some obvious and  
22 sometimes purposeful glitches in it, but so be it. We have  
23 registered our feelings and that is that. Maybe somebody  
24 else got some positive results out of our concerns. Peter.

25 MR. COOPER: Yes, I just had a question. If the

1 staff had a breakdown, we are talking about geographical  
2 dispersion, and if there is a breakdown by different regions  
3 in California, how the funds were awarded, I think that  
4 would be useful to look at, you know, at the very beginning  
5 of the 2010-2011 document, there is a reference to the next  
6 '10 report, which I thought was very useful. And I would  
7 just like to compare some of the areas where they see  
8 potential for economic development region by region  
9 throughout the state with how we are doing as far as this AB  
10 118 funding program. Is that something that is available?

11 MR. MIZUTANI: It is not available, but we do have  
12 in terms of the ARRA awards, we have a general location, a  
13 regional location for the various projects. But we have not  
14 overlaid that on the sort of economic zones or anything like  
15 that.

16 MR. WARD: In the discussions I have had with the  
17 Federal Government, they contend that they evenly  
18 distributed funding across the country. That may not be my  
19 conclusion, but it is definitely what they have responded.

20 COMMISSIONER BOYD: Shannon.

21 MS. SHARPLESS: To Peter's point -- Peter Cooper --  
22 - in reading the document, the Investment Plan, you could  
23 glean from certain parts of the narrative, although it was  
24 not put together in such a way that you could -- I mean, you  
25 needed a piece of paper to try to keep sort of track of what

1 was speculative and then what was definitive, and that is  
2 one of the issues that I have with this report, it is kind  
3 of in some cases, and I think Tom said, it is a fishing  
4 expedition, and in other cases there is greater specificity  
5 and definition, so it is really sort of hard to track what  
6 we might be talking about in the 2010. But, Chuck, to  
7 Peter's point, it would seem like in some areas we know that  
8 vehicles are being delivered mainly in the Southern  
9 California area, and therefore that would mean that this  
10 money, grant money, would be going down from rebates for  
11 certain types of vehicles that were being delivered there,  
12 whereas some of the infrastructure stuff that is happening  
13 in Northern California because of some of the Clean Cities  
14 stuff. Is there any way to kind of graph that out? Is that  
15 getting up to even --

16 MR. COOPER: Yes, there is a little bit of that in  
17 some parts of the report, but there is not one table, one  
18 kind of aggregate overview, which would be helpful for  
19 probably some of the people -- for the public and also for  
20 some of the advisory members.

21 MR. MIZUTANI: Jan and Peter, if that -- we could  
22 do what Jan was suggesting. Again, it would not be this  
23 afternoon, but we could provide that sort of visual or  
24 mapping for the ARRA projects. But to just let you know, on  
25 some of the projects, they were not very specific in terms

1 of a city or a location, it could be more regional. So you  
2 are not going to get crystal clear clarity in terms of the  
3 placement of the various vehicles or filling stations.

4 MR. COOPER: All right, thank you. I will follow-  
5 up with you.

6 COMMISSIONER BOYD: All right, Shannon. But let  
7 me just say one thing. I appreciate Peter's earlier  
8 compliments to the staff about the workforce training part  
9 of this thing because that was one of the early starts and  
10 staff worked very hard to help educate some of the people  
11 out there on how to even make these solicitations and how to  
12 form groups that should come together to make those  
13 solicitations, so a huge effort was put into that, and to us  
14 that was one of our prouder moments in this whole thing, the  
15 workforce development and educational component that moved  
16 so early and seemed so logical in these recessionary times,  
17 and the whole economic stimulus area. And I do know, as we  
18 debated and discussed, you know, we found holes in the state  
19 where people were not responding and encouraged people to  
20 respond, and sometimes they were able to, and sometimes  
21 local folks just were not able to get it together, and so  
22 lessons learned, and that was not just limited to this  
23 agency -- all the agencies involved in that activity  
24 benefitted. And this was an example of an area where I saw  
25 my pet peeve of agencies not working well together totally

1 turned on its head, because there was an incredible  
2 cooperative effort amongst all the agencies to get involved  
3 in those kinds of activities, and this whole effort has done  
4 that -- the flip side is, it has been horribly consumptive  
5 of the limited resources that all the agencies have in light  
6 of furloughs and Furlough Fridays, and everything else.  
7 But, in any event, Shannon now finally you get to --

8 MS. BAKER BROWNSTETTER: I have a very specific  
9 question that is a little bit different from some of the  
10 prior discussion. For both the ARRA funding and the AB 118  
11 funding for electric infrastructure, what percentage of that  
12 has gone to residential infrastructure for electric  
13 vehicles?

14 MR. MIZUTANI: Off-hand, I could not tell you.

15 MS. BAKER BROWNSTETTER: Is it any? I mean, is it  
16 half? Just a ballpark would be great.

17 MR. MIZUTANI: Well, the primary one in terms of  
18 ARRA was the E-Tech Nissan Proposal, and I would imagine  
19 that, with the number of charging stations that it would be  
20 a combination of both residential and public, but I cannot  
21 say for certain.

22 MS. BAKER BROWNSTETTER: And then of the AB 118,  
23 we are specifically dedicated to residential charging  
24 stations?

25 MR. MIZUTANI: No, it is one of -- I mean, both

1 public and home charging would be available for our current  
2 solicitation.

3 MS. BAKER BROWNSTETTER: To apply.

4 MR. MIZUTANI: Right.

5 MS. BAKER BROWNSTETTER: Thank you.

6 MR. SHEARS: Yeah, Chuck, I have been involved and  
7 SEMPRA has held a bunch of workshops and stuff on that, and  
8 so some of that money is going to be going to pay for the  
9 residential. But this is all -- the E-Tech SEMPRA Nissan  
10 project is really meant to be, you know, a big pilot and  
11 launch, and there is also a lot of research around consumer  
12 behavior and stuff that is tied up in that whole project,  
13 but certainly some of those dollars go to pay for  
14 installation within residences.

15 COMMISSIONER EGGERT: I will note a time check, or  
16 maybe a quick comment here. Tom?

17 MR. CACKETTE: Is there a list of the ARRA  
18 projects that actually say -- the successful ones -- that  
19 actually says what they would be expended on, like what John  
20 just described? These tables just sort of show titles like  
21 "Electric Transportation" got \$7 million, but it is not  
22 clear -- it would help us figure out if stuff went to sort  
23 of the 118 objective, or whether they go to something else.

24 COMMISSIONER EGGERT: Right, good question.

25 Chuck, do you --



1           MR. MIZUTANI: We have the information, but again,  
2 in terms of our report, we summarize it, but we have that  
3 detailed information we can provide.

4           COMMISSIONER EGGERT: Thank you. I think seeing  
5 no additional comments, this has been an excellent  
6 discussion on the existing program and I will note we are a  
7 little bit behind schedule, but I think that was definitely  
8 worthwhile to have that discussion and I think a lot of it  
9 will feed in to this next part of the agenda, which is a  
10 review of the 2010-2011 Investment Plan. So go ahead,  
11 Chuck.

12           MR. MIZUTANI: Thank you, Commissioner. One of  
13 the first things I would like to just first put before the  
14 Advisory Committee is our sort of tentative schedule, moving  
15 forward. The February -- today is our first Advisory  
16 Committee meeting and it is on the staff draft. After this  
17 Advisory Committee meeting, we are planning to have three  
18 public workshops on our revised draft in the March  
19 timeframe, and then have a second Advisory Committee meeting  
20 in late March or April. After that committee meeting and in  
21 the April timeframe, we would then make the modifications to  
22 our report and a committee draft report would be produced.  
23 We would plan to post the committee draft report in the  
24 month of May, have a public hearing on the committee report,  
25 and then go to a business meeting in the June-July timeframe

1 to adopt the Investment Plan.

2           So what I want to do now is to just provide a  
3 summary of our draft Investment Plan and how the draft  
4 Investment Plan is organized by the fuel types, there are  
5 six fuel categories, and then there are also two other  
6 categories, one is called the Innovative Technology and the  
7 second one is the Environmental Market Assessment. So I  
8 would just basically be going through and summarizing the  
9 contents of the Draft Investment Plan.

10           In the area of the on-road medium- and heavy-duty,  
11 there are about a million vehicles that are registered, with  
12 an additional million vehicles that are on the road. We see  
13 this in the first Investment Plan, as well as this one, as  
14 an opportunity to create a significant reduction in not only  
15 environmental impacts, but also petroleum reduction impacts.  
16 ARB is currently funding deployment of these medium- and  
17 heavy-duty type technologies, and in sort of collaboration  
18 with them, what we are looking at is to provide funding for  
19 the development of additional medium- and heavy-duty  
20 technology, in particular in the alternative fuel area, in  
21 the area of on-road medium- and heavy-duty technologies. In  
22 this one, in particular what we are talking about is the  
23 TSE, Truck Stop Electrification. And there are basically  
24 seven Truck Stop Electrification projects in California,  
25 there are about 300 sites. In the ARRA funding, they

1 awarded \$22 million for 50 TSE sites outside of California.  
2 We see this as an opportunity to, again, reduce  
3 environmental impacts, as well as petroleum use. And so we  
4 are recommending \$2 million for TSE deployment.

5 In the area of the infrastructure and related  
6 activities, there are 3,000 public stations and about 1,500  
7 community and municipal sites; 58 percent of those are in  
8 L.A., 21 percent are in the Bay Area, 4 percent in  
9 Sacramento, and 4 percent in San Diego.

10 In the area of the electric drive, an anticipation  
11 of the electric vehicle roll-outs as a result of the  
12 mandates and other activities, we see that there is an  
13 additional need to provide funds in this category to either  
14 add to the population of electric chargers, or to upgrade  
15 existing electric chargers to meet the SAEJ1 1772 Standards,  
16 and we have identified \$3 million for that.

17 One of the areas that we saw a tremendous  
18 potential as a result of the ARRA solicitation was in the  
19 area of electric vehicles and component manufacturing  
20 facilities here in California. And we were not successful  
21 in leveraging ARRA funds, but we see that there is a  
22 tremendous potential to realize by providing funds in this  
23 area. And in this area, we are recommending \$7.5 million  
24 and the \$7.5 million would go for a combination of both  
25 grants and loans, similar to what we are developing with the

1 State Treasurer's Office for our existing program funds.

2 MR. CACKETTE: That second bullet, non-road  
3 medium- and heavy-duty, that is Truck Stop Electrification  
4 [inaudible]?

5 MR. MIZUTANI: Again, in our Investment Plan, we  
6 identify Truck Stop Electrification, but if there are  
7 others, we definitely would want to consider it, but --

8 MR. CACKETTE: I was just looking for clarity.

9 MR. MIZUTANI: Right. So in the area of Hydrogen,  
10 we are in the process of developing a solicitation for  
11 fueling stations using \$22 million from our existing fund.  
12 And, again, the purpose of this is to be able to try to  
13 match the Hydrogen vehicle roll-outs and match them with the  
14 demand for fuel. Initially, in the last Investment Plan, we  
15 focused entirely on new Hydrogen fueling stations; this \$22  
16 million will be looking beyond just funding new fueling  
17 facilities, it could include sort of refurbishments of  
18 existing stations, or paying for the operation, management  
19 and maintenance of existing stations, and it also may go  
20 beyond just the stations in what we are defining as cluster  
21 areas. So we are trying to be a little more flexible and  
22 expansive with this solicitation. And we believe that the  
23 \$22 million will be sufficient to meet any of the vehicle  
24 roll-outs; however, we have identified \$14 million to  
25 basically be used as a result of the results from the

1 solicitation for the \$22 million.

2           In the area of Ethanol, the prime mover for  
3 Ethanol is really the Federal RFS. If you look at it from a  
4 fair perspective, we would have to produce about 3 billion  
5 gallons by the year 2022, and if you look at the  
6 requirements of the Low Carbon Fuel Standard, where  
7 California gasoline will probably go from E6 or 7 to an E10,  
8 that would eat up about half of that supply. And then the  
9 other half of the supply would have to find a market. And  
10 we see that market potentially is going to be E-85. And so  
11 what you are looking at is basically a 1.5 billion gallon  
12 per year by the year 2022 for E-85 stations.

13           MS. SHARPLESS: Are these loans, Chuck?

14           MR. MIZUTANI: Right now, I would say these are  
15 grants. We have a current solicitation for E-85 stations  
16 along with natural gas and electric chargers, which are  
17 grants.

18           MR. COLEMAN: Hi, Chuck. This is Will Coleman on  
19 the phone. In the Investment Plan, there was a note about  
20 FFV's and the limitation on deploying FFV's in California.  
21 Can you talk a little bit about that and whether or not --  
22 or why FFV's are not part of this plan?

23           MR. MIZUTANI: The comment in terms of Investment  
24 Plan on the FFV's is that the OEM's have been producing  
25 FFV's in large quantities, but recently there appears to be,

1 I think, a question that is the reason in terms of whether  
2 or not the OEM's will continue to produce FFV's. And that  
3 was sort of -- more of an observation or a comment. We do  
4 not see that there is a need really for funding in terms of  
5 FFV's because they are pretty much -- that is the price of a  
6 gasoline vehicle. And so there really is not an incremental  
7 cost, but it is going to be really -- the decision is really  
8 going to be from the OEM's, not from any other entity. So  
9 that was the comment in the Investment Plan.

10 COMMISSIONER BOYD: John?

11 MR. SHEARS: Yeah, I think the issue is the fact  
12 that, going forward with where California is looking to go  
13 with its vehicle emissions regulations, it is not so much  
14 that the OEMs are going to stop producing them, it is just  
15 that, in the California context, whether FFV's will be able  
16 to meet the emissions criteria that we are anticipating  
17 through the revised regulations that are underway at the ARB  
18 right now, and so I think that is the crux of the issue, as  
19 to whether FFV's will be available in California, or an  
20 expanded fleet of FFV's would be available to sop up any  
21 Ethanol. So the question is whether the vehicle  
22 manufacturers are willing to actually develop [inaudible]  
23 capable FFV vehicles right now, as far as I am aware, there  
24 is nominally one vehicle that was used as part of a CRC  
25 study for ARB on the whole Ethanol emissions issue.

1 MR. MIZUTANI: Thank you, John.

2 MR. COLEMAN: And is there a particular spec where  
3 they fail or something?

4 MR. CACKETTE: Yeah, I can answer that. This is  
5 Tom Cackette. The issue is not that they cannot do it,  
6 notwithstanding the footnote for that comment, which was  
7 attributed to General Motors and, in my view, is completely  
8 an error, misleading. The issue is that they get fuel  
9 economy credits for producing FFV's, and the amount of  
10 credit they get can be achieved by building FFV's that meet  
11 the 30-year standards of the U.S. EPA, and so there is not  
12 an incentive for them to necessarily put the engineering  
13 effort into making those FFV's meet the lower emission  
14 standards that apply, and I am talking about smog standards  
15 that apply in California. It is clear, the how to do it, it  
16 is clear -- half-way clear what the technologies are,  
17 notwithstanding your comments, you know, we talked to  
18 engineers and they know how to do this, it is just a  
19 question of do they want to put in the extra efforts  
20 certifying with California and 13 other states -- FFV's that  
21 meet these higher emission standards. And the way the  
22 economy is right now, they do not get any benefit of doing  
23 that with some of the other states, and that gets us our  
24 maximum federal fuel economy credit, and we do not need to  
25 do this extra step. So that is what is really at stake, do

1 they want to do it or not?

2 MR. COLMAN: Quick follow-up, this is Brooke  
3 Colman, New Fuels Alliance. So in this hypothetical in  
4 footnote 92, you know, GM making a decision between an FFV  
5 Impala, and a SULEV Impala, do they have to certify to the  
6 same EVAP rules in California for both of those fuels? I  
7 still do not understand why they would choose SULEV over  
8 FFV. My understanding is they have to certify to a higher  
9 EVAP standard to do the FFV's than they do for the SULEV.  
10 Is that true?

11 MR. CACKETTE: No, they have to certify to a  
12 tighter standard, the one that is a SULEV. And since our  
13 California smog standards are more stringent, they require  
14 essentially more vehicles to be SULEVs, and in some places  
15 that crosses over with their objective to produce dirtier  
16 FFVs for the EPA states because the standards are a little  
17 laxer. And so they found themselves in a position where  
18 they want the Impala to be clean and the cleanest in order  
19 to meet California standards, and the FFV does not cut it,  
20 so, you know, they can fix that, but it takes extra  
21 engineering resources to do so, and right now that is not  
22 their highest priority. As I said, the benefit they would  
23 get, which is the café credit, has a cap on it and is  
24 achieved by just the vehicles that are sold in the other  
25 non-14 California states.



1 MR. COLMAN: Thank you.

2 COMMISSIONER BOYD: Jan.

3 MS. SHARPLESS: Yeah. Chuck, there was quite a  
4 discussion in the section on Ethanol about a fair share  
5 requirement of the Federal RFS, and I was trying to sort  
6 through if that requirement to be met by 2022, if it is sort  
7 of a State of California policy, and Ethanol is going to be  
8 the control that helps us meet that requirement, and that is  
9 the reason why more so than the vehicles, I mean, obviously  
10 any cars to have the fuel or else it is not economic, but  
11 how do these two things -- how are these two things going to  
12 work together? I mean, if what Tom says is true and that  
13 the domestics, again about what other car companies, but the  
14 domestics feel that this is not going to be something that  
15 is going to keep them competitive, how do we meet the 2022  
16 requirement? Is this Ethanol section part of that? I just  
17 do not understand how the two things work together.

18 MR. MIZUTANI: It is -- in the Ethanol section,  
19 the primary motivation is the RFS. And in terms of the RFS,  
20 there will be Ethanol that is used in California --

21 MS. SHARPLESS: As a blend?

22 MR. MIZUTANI: As a blend. And right now, because  
23 of the economics, I think about 80 percent of the Ethanol is  
24 coming from out of state. And what the sort of  
25 environmental impact is that if you produce Ethanol, even

1 from corn, in-state, you are getting about a 10 percent  
2 reduction in greenhouse gas emissions. But right now,  
3 economically, we cannot compete.

4 MS. SHARPLESS: So, despite this car issue, you  
5 want to do this for its blending capacity and the amount of  
6 the GHG that you would get by having the fuel produced in  
7 California. Is that the rationale?

8 MR. MIZUTANI: Yeah, that is one.

9 MS. SHARPLESS: That is the rationale,  
10 notwithstanding whether or not the facilities we have here  
11 can sustain themselves financially, but that is kind of the  
12 rationale of why you are putting the money here?

13 MR. MIZUTANI: Yeah.

14 MS. SHARPLESS: Okay.

15 MR. MIZUTANI: And then, as a segue, in terms of  
16 production, new production facilities, this is really both  
17 new and existing Ethanol production facilities. There are  
18 tremendous basically feedstock resources in terms of for  
19 biomass waste resources that offers us an opportunity to  
20 utilize. There are about seven in-state facilities that  
21 basically are not operating, with the exception of one, and  
22 we would be looking at providing sort of a loan to allow  
23 them to operate and sell their products in the California  
24 market, rather than having the California market purchase  
25 Ethanol from out-of-state. But, in doing that, what we are

1 looking at is that those facilities would, after two years,  
2 move to a process or a feedstock that would reduce their GHG  
3 emissions by 10 percent. In addition, in terms of new  
4 facilities, just because of the biomass waste resource  
5 potential, we feel that there are opportunities to build --  
6 that there be new facilities built utilizing waste resources  
7 such as those that are cellulosic in nature. And so, based  
8 on that, we identify or recommend \$10 million, again,  
9 ranging from grants, as well as loans, depending on the type  
10 of proposal that would be requested for funding.

11 COMMISSIONER BOYD: Chuck, it is my recollection  
12 that you commented about helping people make the transition  
13 to biomass cellulosic, isn't that a condition? My  
14 recollection was that a condition of helping them now would  
15 be an absolute commitment to the fact that they are engaged  
16 in a changeover, otherwise no money goes to them. Is that  
17 correct?

18 MR. MIZUTANI: Yeah, what we are looking at is  
19 that in Year 3, they would have reduced their GHG emissions  
20 by 10 percent.

21 MR. HWANG: Can I follow-up? I thought that some  
22 of the facilities, corn Ethanol facilities in California,  
23 were currently shutdown, actually scored out on the border  
24 of a 10 percent reduction currently, so I am kind of -- I  
25 guess I am a little unclear what the benefit associated with

1 the commitment for a Year 3 for a 10 percent reduction,  
2 shouldn't we be asking for more? And I guess the question  
3 really is, the rationale here appears to be that corn  
4 Ethanol provides a very coherent half-way to a lower carbon  
5 Ethanol technology reduction, so can you elaborate a little  
6 bit more both on what the retrofit technology would be, what  
7 kind of commitments are we asking for -- I am assuming you  
8 are talking about legally binding commitments and  
9 contractual commitments that return the money if they do not  
10 make the investments. The 10 percent reduction criteria  
11 seems to me to be too lenient of a standard to acquire by --

12 MR. MIZUTANI: Okay, well, I think what we are  
13 really looking at is, I think, four to five facilities that  
14 would have an opportunity to basically take advantage of the  
15 funds to be able to continue in the process, but in the  
16 process of reducing their GHG. And one facility is looking  
17 at reducing their process energy by 10 percent in terms of  
18 reducing total GHG by 10 percent. There may be others. The  
19 other ones may be looking at switching to the feed stocks  
20 and, therefore, if they do, they would have to retrofit  
21 their current facility to be able to accept those types of  
22 feed stocks.

23 COMMISSIONER EGGERT: And just to clarify, Chuck,  
24 you are saying 10 percent beyond their current? So it is  
25 not just 10 percent relative to gasoline, for example? It

1 is 10 percent beyond?

2 MR. MIZUTANI: Yeah, whatever their GHG footprint  
3 is now, it would be 10 percent less.

4 COMMISSIONER EGGERT: I -- go ahead, Tom.

5 MR. CACKETTE: Yeah, this kind of gets to an  
6 example of where I think the words in these tables do not  
7 convey what the policies are. If you look at \$10 million  
8 for what it says, "Development Activities for New and  
9 Retrofit Advanced Ethanol Production Technologies," and what  
10 you cannot get from this discussion is whether -- will all  
11 this money go to facilities that are going to make a 10  
12 percent improvement in their footprint? Or would some of it  
13 be sort of guaranteed or desired to go to facilities that  
14 have cellulosic or very low carbon? It kind of gets back to  
15 that issue we talked about so long on the last plan about  
16 where the money is going for higher risk, but bigger pay-off  
17 projects vs. guaranteed results with low risk, but only  
18 marginal GHG reductions. And, again, I know this is a  
19 discussion -- I caught Bonnie not saying it, but the major  
20 focus of this is not alternative fuels, per se, but it is  
21 alternative fuels that achieve low greenhouse gas emissions.  
22 So how come -- are we just going to put a solicitation out  
23 that says, you know, "Give us some stuff that will go to  
24 advance Ethanol production facilities that achieve a 10  
25 percent reduction, and then it is going to be left up to CEC

1 staff to see if they could all to 10 percent improves  
2 things, or all to 70 percent improve or advance technology  
3 stuff? Or how is that going to work? What is the signal  
4 that is being sent here?

5 COMMISSIONER EGGERT: Well, I will invite comment  
6 from staff, but I believe the 10 percent is a minimum  
7 threshold. Then, maybe if you want to expand upon that?

8 MR. WARD: Correct, Commissioner. That is -- we  
9 really have -- the low hurdle rate is 10 percent, at  
10 minimum, and I think Roland is right, California facilities,  
11 when they were operating, due to the wet facility -- rains  
12 and other energy inputs -- were 10-15 percent lower than the  
13 gasoline-based plant already. We are asking for a 10  
14 percent further, at minimum, reduction. And certainly if  
15 they are using other feed stocks that could even go further.  
16 You may recall in the last Investment Plan, I floated the  
17 idea that we could have evaluative criteria based on the  
18 attributes of particular projects, and that means if they  
19 are a lower GHG, they would either score higher, or receive  
20 higher incentive threshold for the incentive they would  
21 receive. So this would be more of a pay for performance or  
22 evaluate for performance based on an even lower -- so 10  
23 percent minimum, then as far as I am concerned, the sky is  
24 the limit, then they should be rewarded for going towards  
25 the sky.

1 MR. HWANG: Just a follow-up --

2 COMMISSIONER EGGERT: With a maximum of 100  
3 percent, right?

4 MR. WARD: Yes.

5 MR. HWANG: But just to make sure I understand,  
6 Peter, that is helpful, but of the \$10 million that is for  
7 new and retrofitted Ethanol facilities, is there going to be  
8 a limit on the \$10 million for existing facilities,  
9 retrofitting existing facilities? Because there are  
10 obviously different risk profiles associated with a new  
11 advanced cellulosic facility vs. an existing facility that  
12 just needs to get some capital to keep moving forward, get  
13 back to operations, so I thought that Tom's question was --  
14 and maybe I misinterpreted it -- was, of the \$10 million  
15 allocated for new and retrofitted, is there a thought on how  
16 much of that is going to go towards existing facilities to  
17 keep them at operation, with the promise -- commitment, I  
18 should say -- legally binding commitment -- to move forward  
19 with this new or lowered retrofit technology?  
20 I guess that is a question, maybe one of the implications  
21 here is should we have a cap on a separate category for the  
22 intended allocation within the Ethanol funding pot for  
23 existing vs. new facilities.

24 MR. WARD: I do not think we have made that  
25 delineation yet, but we will take your point and what we

1 want to do is see if we can open those that exist now for a  
2 better path to lower GHG. And that is a 10 percent minimum  
3 threshold. We do expect the new facilities -- of course,  
4 they would be a higher capital cost -- to achieve even much  
5 much higher reduction in carbon intensity for the fuel up to  
6 and including 70 percent to 100 percent.

7 MR. HWANG: So it is all four or five of these  
8 facilities that you mention as a possibility for receiving  
9 loans, if all four or five facilities received grants or  
10 loans, how much of this pot of money are we talking about?  
11 Is that \$8 million out of \$10 million would be expended to  
12 keep these four or five facilities going? Or is it going to  
13 be \$2 million? I mean, I think that is kind of the rough  
14 question.

15 MR. WARD: It is pretty preliminary at this point.  
16 We really do not know. And most of all, the problem we have  
17 in projecting some of these dollars is we do not know what  
18 we are going to get. It is the box of chocolates.

19 MR. COLMAN: Just for clarification, so you are  
20 actually deploying dollars to keep these facilities open?  
21 Or are those dollars being deployed specifically to the  
22 retrofits for reductions of their carbon footprint?

23 MR. MIZUTANI: Initially, it is to keep them in  
24 operation, but part of the contract is, in three years'  
25 time, they will make changes to reduce their GHG emissions.



1                   COMMISSIONER EGGERT: Go ahead, Jan.

2                   MS. SHARPLESS: The point I guess I was making,  
3 and it is not a disagreement with what is being said in  
4 terms of the policy drivers, but ultimately you do not want  
5 to be spending money on facilities that cannot sustain  
6 themselves beyond the Government expenditure. So some of  
7 this, you know, should it be \$2 million, should it be \$5  
8 million, should it be \$8 million, would depend on the  
9 question ultimately, wouldn't you say, Roland, that if there  
10 is a rationale, if there is a justification, for even these  
11 facilities that are not as great as we would like them to  
12 be, we do not want to give them money and then see them  
13 shuttered three years later. So I think it has to be a  
14 discussion with some investors about how you make these  
15 facilities viable. And certainly the higher they get in  
16 terms of their advance technology for meeting these goals, I  
17 would think, would require more money, probably in the grant  
18 kind of category, whereas some of these others would be in  
19 the loan category, and so you would have to -- I can see why  
20 it is difficult to answer the question of, you know, is it  
21 going to be \$2 million of the \$10 million pot? I can see  
22 why that would be a problem trying to get that information  
23 to this committee today. But I think what it focuses on is  
24 the fact that there needs to be a little bit more  
25 specificity on what it is you hope to accomplish in each one

1 of these categories. And as you develop these plans and put  
2 them out for public comment, I think you will find that you  
3 will be much more productive with a little bit more  
4 specificity, rather than sort of the general narrative.

5 COMMISSIONER EGGERT: John.

6 MR. SHEARS: Just to follow-up on Jan's remarks, I  
7 think we also have to be cognizant that, given the limited  
8 number of commercial operators in the state, that if we use  
9 a facility screen, we actually could be disproportionately  
10 funding, you know, operators that have already received  
11 substantial state funds and I am not sure what the  
12 disposition of those funds are, given that that particular  
13 operator went into bankruptcy. So I think we have to be  
14 very careful when we are talking about, you know, using  
15 taxpayer dollars to support potentially the one large  
16 operator in-state, again, given the challenging economic  
17 environment within which they are operating in, and the  
18 disposition of prior taxpayer dollars to support that  
19 operation.

20 COMMISSIONER EGGERT: I guess just a quick  
21 comment. I appreciate Jan's comments about, you know,  
22 trying to ensure that this does not become a perpetual  
23 subsidy, you know, we have seen how that can happen in  
24 certain instances. I would also sort of invite the Advisory  
25 Committee's comments on, you know, this area of basically

1 liquid biofuels is really one that is seeing a lot of  
2 innovation. There are all sorts of investments being made  
3 in a wide variety of feed stocks and processes, and end-  
4 products, Ethanol being certainly one of the current  
5 dominant end-products, but we are seeing investments in bio-  
6 butanol, biologically driven hydrocarbons, and such. And  
7 so, sort of thinking about this in the context of planning,  
8 doing the best planning we can for the future, which is  
9 currently an unknown future, you know, how do you see this  
10 sort of fitting into that strategic plan? So I will just  
11 leave it at that.

12 MR. COLMAN: Quick comment. Brooke Colman on the  
13 phone. My understanding of this particular program is --  
14 and my understanding is limited by the amount of information  
15 that is available -- but that it is going to be tied to  
16 production in some way. I mean, usually the state and  
17 federal government deal with the type of question raised by  
18 Jan as, you know, tying it to production outputs so that the  
19 State does not pay for a Ferrari and a big silver tank. Is  
20 that part of the equation here? I guess that is my  
21 question, then I have a follow-up comment. Has there been a  
22 discussion about whether that is tied to production? In  
23 other words, for production or a tax break on --

24 MR. MIZUTANI: Yes, it is tied to production.

25 MR. COLMAN: Okay, so then that concern would be

1 at least somewhat, if not completely alleviated, because the  
2 entity would not receive the funding allocation unless they  
3 actually came online and produced the volumes with the  
4 effects that you are anticipating, correct?

5 MR. MIZUTANI: Yes.

6 MR. COLMAN: Okay.

7 MS. BAKER BROWSTETTER: That seems a little bit  
8 different from the initial discussion that somebody, that a  
9 corn processor would not need to -- that they would need to  
10 show, but for these funds, they would not be able to  
11 continue. I mean, having the production outcome be the  
12 determinant, that seems a totally different measure than the  
13 "but for" analysis. I mean, I think if you are using a "but  
14 for" analysis, that is really problematic. It is very  
15 difficult and expensive, of course, to really assess whether  
16 or not they would go under but for the subsidy. My other  
17 comment is related to -- this is kind of being a roundabout  
18 way to get the cellulosic Ethanol produced, you know, to go  
19 through the corn-based producers, to have them retrofit. I  
20 mean, it just seems very odd to me. It seems like you would  
21 want to just support the cellulosic, you do not want to  
22 crowd out the newcomers, the people who might actually being  
23 producing the cellulosic directly, rather than those who  
24 already have a production facility, but maybe they have no  
25 interest in transitioning it over. Those are my two

1 comments.

2 MR. MIZUTANI: I think -- I do not think we want  
3 it to be an either/or; I think we have limited supplies of  
4 alternative fuels. These are existing facilities that have  
5 that potential right now to produce, and if there is a way  
6 that we can do that in an economically efficient way, I  
7 think we should consider them, in addition to any new  
8 facilities that could be built and producing alternative  
9 fuels, or misty [phonetic] biofuels.

10 MR. COLMAN: Yeah, a quick comment and response to  
11 that. Brooke Colman again. I mean, I think it is important  
12 that people understand what the bio-refineries in California  
13 want to do; it is not that they want to -- they are dying to  
14 convert corn into Ethanol, they want to sell Ethanol. So in  
15 a lot of ways, what the state is doing is capturing a  
16 cultural interest, whether it is a corn Ethanol facility or  
17 a cellulosic facility, and selling Ethanol into the  
18 marketplace, and a lot of the guys that are importing corn  
19 -- or, excuse me, cheap feedstock, and when that feedstock  
20 is no longer cheap, they are as interested, if not more than  
21 anybody else, in diversifying their feedstock stream. So  
22 the question -- I think the important question for this  
23 group is how do we most quickly, in terms of bang for buck,  
24 enable that outcome? And I agree with the sentiment just  
25 expressed, that sometimes it is the new guy on the block,

1 the Blue Fire Ethanol, some guy -- sometimes it is specific  
2 Ethanol that already has a bunch of steel in the ground, and  
3 hopefully it is both. But I can tell you, based on my  
4 experience with our coalition members, that the people that  
5 sell biofuel are chasing cheap feedstock, and if corn is a  
6 cheap feedstock, they think corn is the greatest thing in  
7 the world, and if Switchgrass is cheap feedstock, they think  
8 Switchgrass is the greatest thing in the world. So  
9 hopefully we can focus on breaking that bottleneck and not  
10 worry so much about, you know, feed stocks.

11 COMMISSIONER EGGERT: Bonnie?

12 MS. HOLMES-GEN: Yeah, this is Bonnie Holmes-Gen.  
13 I just wanted to comment that I agree with some of the prior  
14 discussion, that I think we need a little more clear  
15 definition of what the advanced production technologies are  
16 that would be funded, and while I appreciate that 10 percent  
17 is the minimum, I also, in terms of the GHG reduction, I  
18 also agree that that is low and so I wanted to join those  
19 who were saying that -- suggesting that the CEC could look  
20 at a little higher threshold than the 10 percent. I would  
21 be happy to think about that and suggest some. But I do  
22 think that we need to have a little more definition in terms  
23 of what feed stocks, what kind of process we are looking for  
24 as an advanced production technology for this category.

25 MR. MIZUTANI: Thank you.

1           MR. COLEMAN: This is Will Coleman on the line.  
2 So just in terms of that, I think we need to be a little bit  
3 careful, though, over-proscribing here. I think that if we  
4 dictate the minimum threshold, I think it is going to be a  
5 question of definitions, because, you know, we have seen  
6 certainly technologies come in the door that improve the  
7 efficiency of the facility by, you know, four or five  
8 percent, but what they do is they produce an additional, you  
9 know, eight or nine million gallons of fuel that is  
10 considered 100 percent cellulosic fuel, and so that would  
11 qualify on those gallons produced, but it would not qualify  
12 as the whole facility, and so I think the issue is how do  
13 you prioritize. And I think Peter was talking about that  
14 earlier, which is if you leave this as open as possible, you  
15 know, and then apply a prioritization on those that achieve  
16 the highest reductions, then you have kind of solved the  
17 problem and you do not really need a minimum threshold.

18           COMMISSIONER EGGERT: Roland.

19           MR. HWANG: I just want to echo something that  
20 Shannon said, I think, is that this does seem to be a face  
21 of -- a bit of an indirect way of getting at what you want.  
22 And I think there are some questions just about the kind of  
23 fiscal reasonableness of providing these kind of loans to a  
24 facility that is currently not financially viable. So, you  
25 know, given those two, I think, very legitimate concerns, I

1 think at the very minimum, as Bonnie was saying, is that I  
2 think we -- if this is to be contemplated at all, I believe  
3 the public should have a better indication of what kind of  
4 technologies we are going to get in return for keeping these  
5 facilities afloat for two years. I think it is a very  
6 reasonable request, and I think it is very reasonable for us  
7 to understand, are we going to get something substantial?  
8 Or are we going to get minor tinkering around the margins to  
9 improve the efficiency of these facilities? And is it 10  
10 percent improvement from today's level? It is 20? Is it  
11 30? Or is it 40? Is that on a per gallon basis of the  
12 incremental production? Is it a total production? I do not  
13 know. But I think the principal here, I believe, is that  
14 there should be some greater transparency regarding what the  
15 state is going to require in terms of new technologies, in  
16 return for what would be a very generous offer in keeping  
17 these facilities afloat for two years.

18 COMMISSIONER EGGERT: Any other comments from the  
19 phone? Or we can go to the next slide?

20 MR. SIMPSON: I have one question. This is Harry  
21 Simpson. On that \$10 million related to the advanced  
22 Ethanol production, is that entirely the grant portion and  
23 the loan monies would be on top of that? And, if so, how  
24 much is allocated of the loan monies, or is that split up  
25 somehow between loans and grants?



1           MR. MIZUTANI: We have not identified how that is  
2 going to be split up. The \$10 million will be a combination  
3 of grants and loans. But, at this point, we have not  
4 identified what portion of that will be grants or loans.

5           MR. SIMPSON: Okay, thank you.

6           COMMISSIONER EGGERT: I would say, too, I mean, to  
7 the extent that these are really good questions, and where  
8 we do not have answers, you know, we would certainly invite  
9 recommendations, suggestions from the committee going  
10 forward as we further evolve this plan to a final product.  
11 Go ahead, Chuck.

12           MR. MIZUTANI: Thank you. The next one is sort of  
13 a continuation of the previous discussion. But in the area  
14 of the biomass-based diesel, they also are sort of  
15 experiencing similar problems as with Ethanol, so we see  
16 that there is, again, a potential to utilize in-state waste  
17 resources to produce a biofuel such as a biomass-based  
18 diesel, and we have identified \$5 million just based on what  
19 the number of projects that might be being developing at  
20 this time.

21           In the area of both storage and blending  
22 facilities, currently biodiesel is being used as a diesel  
23 blend, and the bulk of the diesel, as well as biodiesel, are  
24 being imported. And right now, what that is doing is there  
25 is a need to have a sort of separate or biofuel

1 compatibility with the existing terminal and blending  
2 storage. And we have identified \$5 million for that. It  
3 would probably address about a quarter of the storage  
4 capacity in California with respect to the diesel market.

5 MR. SIMPSON: I have a couple comments on that.  
6 This is Harry Simpson. On the \$5 million for the terminal  
7 storage, you just said that would account, you think, for  
8 getting biodiesel or biomass-based diesel blending at 25  
9 percent of the existing terminal structure? Is that what  
10 you said?

11 MR. MIZUTANI: Yeah, and what we are looking at is  
12 not -- is more of a cost share loan type of arrangement.

13 MR. SIMPSON: And that is based on -- I mean, how  
14 did you come up with that?

15 MR. MIZUTANI: Well, based upon -- well, in terms  
16 of, I think, discussions with potential stakeholders,  
17 previously. We have a current solicitation out on the  
18 streets now where we receive proposals. And so it is just a  
19 continuation of that approach.

20 MR. SIMPSON: Is the idea for that \$5 million,  
21 that tentatively allocated, strictly at the bulk fuel  
22 terminals, i.e., Kinder-Morgan pipe terminals, or NuStar, or  
23 refinery rack terminals?

24 MR. MIZUTANI: I believe so, yes.

25 MR. SIMPSON: And why wouldn't you consider

1 alternative investment, or investment in alternative  
2 blending sites that enable perhaps equivalent or even  
3 greater blending potential? I mean, why strictly the  
4 existing terminal at the structure?

5 MR. WARD: This is Peter Ward again. What we had  
6 received as part of our first Investment Plan was the  
7 information that there were bottlenecks at the existing  
8 terminal at distribution centers. We are certainly open to  
9 any other information that could help distribution of bio-  
10 diesel, so your comments are well taken and I would like to  
11 follow-up with you in more detail on that, but this really  
12 has been based on the input that we received in the first  
13 Investment Plan, and up to now, that there were bottlenecks  
14 of existing storage and distribution facilities in the  
15 state. We are open to other investments.

16 MR. SIMPSON: Peter, in response to that  
17 particular comment, on the first Investment Plan, there was  
18 no representation by anyone in the biodiesel industry and  
19 certainly not in biomass-based diesel, in general, in the  
20 Advisory Committee. Secondly, I think you did get some  
21 comments in private meetings between some of the  
22 stakeholders in those industries. I know I made one of  
23 those comments myself, and I have seen the proposal and  
24 discussed it with Kinder-Morgan that, you know, you are  
25 looking at a \$2 million investment at Kinder-Morgan, for

1 instance, to put in the storage tank and tie it into the  
2 blending infrastructure and computer systems, and all that,  
3 and that is why I was asking, you know, where did that  
4 quarter-million come from, even assuming a 50-50 cost share,  
5 that would get you about \$2 million per terminal, that would  
6 be about five terminals out of the 36 or 39 or so that are  
7 in the state. So I guess my comment is that I am not sure  
8 that the map is sort of penciled out to get to that 25  
9 percent penetration, if you will, in terms of enabling  
10 blending for 25 percent of all the diesel that is consumed  
11 in California for on-road and off-road, which is combined of  
12 about four billion gallons, I believe.

13 MR. WARD: Well, your point is well taken, but I  
14 am quite sure we would not be able to fund every need out  
15 there, so we are really trying to prioritize the needs and,  
16 as we say, we did try to identify the bottlenecks. But, Mr.  
17 Simpson, I would like to follow-up with you on identifying  
18 those needs, as well. We did not have anybody on the  
19 Advisory Committee, but we have taken lots of public comment  
20 through five public workshops, as well, so we have an open  
21 docket and we would welcome the information you could  
22 provide.

23 MR. SIMPSON: We will take you up on that and  
24 hopefully in the near future, specifically on that topic.

25 MR. WARD: Thank you.

1           MR. SIMPSON: One other question on this is, to  
2 what extent do you make the initial allocation  
3 determination, really based on -- and this is really not  
4 just specifically within looking at biomass-based diesel and  
5 how the monies are allocated within that category, but  
6 relative to the others in terms of, you know, what role does  
7 long-term vs. short-term GHG impact and market penetration  
8 and ease of implementation, in other words, being able to  
9 get something out the door that has an impact today and the  
10 next couple of years vs. things that are much longer term.  
11 And certainly we recognize the need to start today to  
12 incentivize those longer term, longer lead time advance  
13 technology such as Hydrogen fuel cells. But, I mean, how do  
14 you balance near term vs. long term impact and  
15 implementation?

16           COMMISSIONER EGGERT: Harry, this is Anthony and I  
17 think that is an excellent question probably for our  
18 afternoon's discussion. I think that is likely to be a  
19 fairly lengthy and involved dialogue about sort of the  
20 overall strategic nature of the plan, and the prioritization  
21 of the investments. I think doing a time check here and  
22 realizing that we are all going to be overwhelming the local  
23 lunch areas, I would suggest we might want to get at least a  
24 five-minute head start. This has been a really good  
25 discussion and it is sort of bleeding over, I think, into

1 what we had intended to do in the afternoon, which is to  
2 have a more expanded discussion about these programmatic  
3 areas, but I think it has been going quite well, the  
4 questions have been very good, and I think we will also be  
5 able to return to some of them this afternoon, as well. So  
6 I think, with that, I am going to suggest that we take a  
7 break, about one hour, and reconvene here as close to 1:00.  
8 And I would just request that you be back here at 1:00, and  
9 we will look forward to continuing the discussion. Thank  
10 you.

11 (Off the record at 11:58 a.m.)

12 (Back on the record at 1:12 p.m.)

13 COMMISSIONER BOYD: While we are settling in, let  
14 me remind everybody sitting at the table that you need to  
15 get these microphones very close to you to be heard, and you  
16 have got to remember to turn them on and off, push the  
17 little push sign and if you have a green light, you are on,  
18 otherwise, you can turn it off and be careful that your  
19 cells phones and Blackberries are not too close. We heard  
20 -- it did not get aggravating, but we heard a lot of buzzes  
21 this morning as people's cell phones were receiving messages  
22 like crazy. We do not mind you having them on, I only heard  
23 one ring, so if everybody can keep them on stun, but if you  
24 get them too close to the microphones, it picks it up and  
25 then it broadcasts it, so just a reminder. We have all

1 kinds of electronic ghosts in this room on occasion and it  
2 gets hard to hear. Okay, Chuck, are you ready to pick up  
3 where you left off? Hopefully re-stoked with energy from  
4 getting some lunch?

5 MR. MIZUTANI: I will try to be quick because I  
6 think the discussion this morning was very good.

7 For natural gas, in the medium- and heavy-duty  
8 vehicle area, we see that there is an opportunity to realize  
9 greenhouse gas emission reduction and petroleum reduction.  
10 It is a limited market in the sense of the number of  
11 vehicles, but it has a higher consumption and production of  
12 emissions that make it an opportunity area. Seventy-five  
13 percent of the vehicles are transit or school buses, 10  
14 percent being refuse trucks. There are current programs in  
15 the South Coast Air Basin and as well as with the ports to  
16 look at the conversion of their vehicles and fleets to  
17 natural gas. In the ARRA solicitation, there was about  
18 \$11.5 million of ARRA funds that were awarded to ARRA  
19 projects, and so we are looking at recommending about \$12  
20 million for this Investment Plan for medium- and heavy-duty  
21 port trucks and school busses and other types of natural gas  
22 vehicles.

23 We have funded natural gas fueling stations and we  
24 will continue to do that, however, there are existing  
25 stations that would have a productive life and should be

1 maintained, or sort of upgraded. And so we are looking at  
2 about \$2 million basically for upgrading of existing  
3 compressed natural gas stations.

4           And then, finally, not only in terms of the ARRA  
5 solicitation, but also from the workshops that we had,  
6 leading up to the draft Investment Plan, we feel there is a  
7 huge potential to realize biomethane from in-state  
8 California, basically waste resources. We have \$21.5  
9 million in funds in the current solicitation, and we believe  
10 that an additional \$10 million should be put into the  
11 biomethane production category. In the area of propane,  
12 there basically is a very small population or universe of  
13 propane vehicles, basically I think there is probably two to  
14 three, one is the Roush F150 Kit and there are also propane  
15 school buses. There are opportunities to realize in terms  
16 of the use of propane for school buses, as well as for the  
17 light, medium truck market, and so we identified \$3 million  
18 to take advantage of that. And it is based upon trying to  
19 extend the market in the hopes of the efforts currently  
20 going on to develop a renewable propane supply, so that is  
21 one of the major reasons of why we think there should be at  
22 least some continued funding for propane technologies.

23           There is a new category, I think, I cannot  
24 remember who mentioned it, but it was like cool things that  
25 we have not thought about. That basically is our Innovative



1 Technologies. There are areas that would benefit from  
2 funding that could realize a significant greenhouse gas  
3 emission reduction benefit, as well as petroleum reduction.  
4 We identified \$3 million, but we really do not have a  
5 specific proposal in mind, and our hope was that we would be  
6 able to gather some ideas or suggestions from the Advisory  
7 Committee in this area. This area basically has a focus  
8 more on efficiency and other types of technology  
9 improvements, but it also does include some aspects of  
10 alternative and renewable fuels, that we do not know  
11 necessarily what that might be vs. those that we do know  
12 about that are in the other fueling categories. So the  
13 purpose of this really is to try to take advantage of any  
14 innovation that is developing, or has developed recently.  
15 So any input on this one would really be appreciated.

16           And then finally the last category is called  
17 Market and Program Development. We had a Marketing and  
18 Public Outreach category in the previous Investment Plan.  
19 We had identified a million dollars. We have not used those  
20 funds with the exception of about half a million dollars  
21 that came from that pot for one of the ARRA Awards. We  
22 think that it is time now to develop sort of marketing or  
23 outreach information that we would be able to disseminate to  
24 various groups; one of them would be to decision-makers that  
25 would be making decisions on these types of projects. In

1 terms of sustainability, we are looking to recommend \$2.5  
2 million in the area of sustainability to further our  
3 knowledge and incorporation of sustainability into our  
4 program. We are currently looking at encumbering \$2 million  
5 into current allocation in the area of forest biomass.

6 And then, finally, there is a category called  
7 Technical Assistance and Environmental Market Technology  
8 Analyses. We are recommending \$6 million; \$3 million of  
9 that is identified in our Budget Change Proposal, or in the  
10 Governor's Budget to be for technical support or assistance  
11 to the program, leaving \$3 million for funding other  
12 analytic activities. An example of that would be -- we are  
13 looking to NREL, to partner up with NREL, to undertake  
14 basically marketing analyses. So --

15 COMMISSIONER BOYD: Chuck -- acronyms.

16 MR. MIZUTANI: National Renewable Energy  
17 Laboratory, it is a Federal Research Lab.

18 COMMISSIONER EGGERT: And just to clarify, it is  
19 market analysis, right? Not marketing?

20 MR. MIZUTANI: Yes.

21 COMMISSIONER EGGERT: Okay, thanks.

22 MR. MIZUTANI: Sorry. If I said "marketing," I  
23 apologize.

24 COMMISSIONER EGGERT: I was envisioning an  
25 evaluation of commercials for biofuels, right.

1           MR. MIZUTANI: So that is the extent of the  
2 allocation of the \$108 million in the staff draft Investment  
3 Plan.

4           COMMISSIONER BOYD: Okay, folks. I see -- oh, I  
5 am sorry. Go ahead, John. I could not see through the  
6 green water bottle here.

7           MR. SHEARS: Yeah. You mentioned the retrofits  
8 for propane, etc., and I forgot to ask. It is touched on in  
9 the draft Investment Plan, but it seems like going forward  
10 Energy Commission thinks there are a lot of benefits that  
11 could come from retrofitting medium and heavy duty, but I  
12 was wondering if you could just update the Committee on what  
13 is being referred to when you talk about, on the light duty  
14 side, the project that is being established with the PHEV  
15 Research Center at UC Davis, and how that might inform  
16 future programs for retrofitting on a light duty side. I do  
17 not know if the committee has been updated on what is  
18 happening there.

19           MR. MIZUTANI: Sure. We had about \$3.5 million  
20 allocated to the PHEV retrofits. Some of that money was  
21 used as part of the cost share for the ARRA awards, but  
22 there remains about a little under \$3 million for converting  
23 hybrid electric vehicles to plug-in hybrids. What we are  
24 looking at right now is more using those retrofit vehicles  
25 to collect data and form analyses, and that -- what we are

1 doing with the PHEV Research Center -- is to discuss what  
2 type of analysis would be valuable for not only our program,  
3 but perhaps for other forums going on as an example of the  
4 Public Utilities Commission OIR, could find use of analysis  
5 that would come out of this funding. So we have begun  
6 discussion with the PHEV Research Center, but we have not  
7 really come up with any solid ideas yet.

8 MR. SHEARS: So the money that was allocated for  
9 the retrofits, essentially part of it would be that some of  
10 that money would possibly go towards funding a research  
11 program that is in parallel with the current retrofit  
12 program?

13 MR. MIZUTANI: Yes.

14 MR. HWANG: Another question. Chuck, I would like  
15 to extend our appreciation for the allocation of some of  
16 this money for sustainability studies, we think that is very  
17 important in addressing these key glaring holes in our  
18 ability to move forward in a scientific and an objective  
19 manner on a variety of different sustainability criteria, so  
20 I think it is very important and I just wanted to reinforce  
21 that, you know, we strongly support such and express our  
22 appreciation for inclusion of such. Can you expand a little  
23 bit more on the Forest Biomass study that is also something  
24 of interest to my organization. What would that study be  
25 for?

1           MR. MIZUTANI:  If Jim is available, Jim McKinney  
2 is available, I would like him to provide that information.

3           MR. MCKINNEY:  Hi.  I am Jim McKinney.  I am the  
4 Program Manager for the sustainability work with AB 118.  
5 Forest Biomass utilization -- woody forest biomass  
6 utilization has turned out to be just one of the most  
7 politically and technically complicated issues that I have  
8 been involved with on the sustainability side here, and  
9 there is a lot of scientific controversy over kind of the  
10 need for fuels management work, the volume and location of  
11 the waste streams for many such activities, there is a lot  
12 of scientific uncertainty over bio-risk reduction, there are  
13 benefits on the ecological side; and then we have a dearth  
14 of technologies that can commercially convert woody biomass  
15 into liquid fuels, or gaseous fuels, at this time.  So that  
16 is where a lot of the money would be going.  So, again, to  
17 help fund some of what I would call the deep science that  
18 the UCs are currently engaged in with this issue.  We are  
19 working with Cal Fire and the Forest Service on that.  And  
20 then, very specifically for AB 118, what would a  
21 sustainability protocol look like for a woody biomass  
22 project?  So we are trying to develop standardized protocols  
23 for sustainable feed stocks, you know, how do you know that  
24 it came from the right place in the forest in a sustainable  
25 fashion?  Well, that needs a technical protocol, that does

1 not exist yet, so that is something that we are looking to  
2 identify, as well. And we could talk for another hour about  
3 this, but I think that -- hopefully that answers your  
4 question.

5 MR. HWANG: Thank you, yes.

6 COMMISSIONER BOYD: Bonnie.

7 MS. HOLMES-GEN: Are you looking for questions on  
8 this slide or all of it, I am just curious where we are at.

9 COMMISSIONER BOYD: Now we are just going slide by  
10 slide, or --

11 MS. HOLMES-GEN: Okay. Well, can I just go back  
12 to the biodiesel, I did not have a chance to ask a question  
13 there.

14 COMMISSIONER BOYD: Sure.

15 MS. HOLMES-GEN: And I had wanted to ask just  
16 specifically about the emissions impacts of biodiesel, the  
17 biomass-based diesel, and how -- what the plan is to handle  
18 the fact that there is a smog precursor, NO<sub>x</sub> emissions  
19 increase from the fuel, and how is that going to be handled?  
20 How is it going to be mitigated?

21 COMMISSIONER BOYD: There was a comment on the  
22 phone and we did not quite pick up all of it.

23 MR. SIMPSON: Oh, Bonnie is saying that there is a  
24 specific proven impact on it, but the small precursors she  
25 is talking about is nitrogen oxide, and I do not think that

1 has been definitively settled yet by CARB. Certainly, there  
2 is a lot of conflicting research that, at certainly the  
3 lower blend levels that are anticipated in California do not  
4 point to the smog precursors, so that was my only comment.

5 COMMISSIONER BOYD: Chuck and staff, or Tom, do  
6 you want to weigh in on this in terms of where CARB is?

7 MS. HOLMES-GEN: Yeah, I would like their comment  
8 that the committee -- or the draft plan includes some data,  
9 which I am trying to turn to here, which does show that  
10 there are benefits in many areas, but there still is an  
11 issue with the nitrogen oxides in this report. Is there a  
12 conclusion from ARB yet on that?

13 MR. CACKETTE: Well, I think it is still underway  
14 and about to be completed, but all the evidence I have seen  
15 is that there still is a NO<sub>x</sub> increase with blends of  
16 biodiesel and we are talking about things that are 20  
17 percent or less anyway, not full biodiesel, but there is  
18 also some hope that the additives and other reformations of  
19 the ending mix can mitigate that. So I would say that there  
20 is probably not much of a problem, if any, for up to B-20 if  
21 there is a requirement, a spec that says that you have to  
22 mitigate the NO<sub>x</sub>.

23 MS. HOLMES-GEN: Okay, and is that spec included  
24 in the criteria, then, I guess?

25 MR. CACKETTE: Well, that has not come out yet. I

1 mean, that is still sort of the inside story on what the  
2 testing evaluations are.

3 MR. SIMPSON: Is the question simply will CEC, in  
4 determining their funding allocations factor -- I mean, is  
5 that your question, Bonnie, that it will factor in, you  
6 know, achieving air quality goals? Which I do not believe  
7 is part of the policy objectives of AB 118, but let's  
8 clarify that while we are on it.

9 MS. HOLMES-GEN: No, it actually is one of the  
10 policy objectives in AB 118, it is, yes.

11 MR. SIMPSON: I am looking at Table 1 in the  
12 document.

13 MR. MIZUTANI: Well, in legislation, is that what  
14 you mean, Bonnie?

15 MS. HOLMES-GEN: I am referring, yes, to the  
16 legislation, the AB 118 legislation, specifically does have  
17 language. I am just asking how is that going to be  
18 considered by the CEC, the air quality impact, and I am  
19 assuming, of course, that CEC will continue to work closely  
20 with the ARB and incorporate any mitigation strategies that  
21 are --

22 COMMISSIONER BOYD: Yeah, if the ARB changes the  
23 rules, we go along with them, and I agree, I mean, air  
24 quality is one of the basic foundations in the 118 program,  
25 and not exacerbating, but always trying to improve. I



1 think, I mean, the category of biodiesel -- and correct me  
2 if I am wrong, Chuck, or Peter, or somebody -- I mean, to  
3 me, it is biodiesel, but it is also synthetic diesels, it is  
4 any kind of diesel-like fuel that fits in that kind of  
5 engine technology. And with biodiesel, we have always --  
6 you know, the traditional biodiesel, we have been aware of  
7 the concerns and I do not think we would want to do anything  
8 to contribute to backsliding. By the same token, many of  
9 the explorations into diesel-like fuels bring all kinds of  
10 positive qualities with them, at least alleged in the  
11 research that is going on, and we would certainly encourage  
12 that, and do encourage that. So I do not know if staff  
13 wants to add anything.

14 MR. MIZUTANI: Well, I think the primary goal is  
15 GHG reduction, but at a minimum we are not going to be  
16 backsliding on any other kind of standards or regulations,  
17 air quality being primary. So it would have -- at a  
18 minimum, whatever the project it is, it is going to have to  
19 meet air quality regulations. And in terms of funding of  
20 facilities, they are going to have to get permitted from the  
21 local agencies.

22 COMMISSIONER BOYD: I know there are people in the  
23 audience dying to address this, but this is a dialogue  
24 amongst the Advisory Committee members, so far, so hold your  
25 thoughts for the public comment.

1 MS. HOLMES-GEN: Continue that later. I just  
2 wanted to -- real briefly, one more thing real quick?

3 COMMISSIONER BOYD: Sure, then after that John and  
4 then Jan.

5 MS. HOLMES-GEN: Okay. I appreciate that you have  
6 the program, marketing and public education, I think that is  
7 really important and I hope that I am just -- you know, I  
8 know we did everything we could last year, it is too bad we  
9 could not get that kind of program going and I hope that we  
10 can define a public outreach campaign this next year and  
11 really get it going. I think that is a very important  
12 component and, to the general public is what I am thinking  
13 more than just to the decision-makers or officials, but to  
14 the public to express the importance of making decisions to  
15 buy the cleanest technologies, and the importance and the  
16 severity of the global warming concerns we have, and that  
17 there are viable cost-effective technologies available now  
18 that the public can take advantage of. So I hope that ARB  
19 and CEC can work together and develop a plan to really get  
20 that going.

21 COMMISSIONER BOYD: John, then Jan, then Dan.

22 MR. SHEARS: Yeah, I just want to hearken back to  
23 the public workshop where FAME biodiesel was discussed many  
24 months ago, and I recall raising this issue before and I  
25 will raise it again today because, I mean, the discussion

1 right now has been about the air quality aspects of  
2 biodiesel, but I think we also need to be cognizant and I  
3 hope staff have been consulting with appropriate engineers  
4 with the manufacturers about what the implications are, you  
5 know, for the industry, but also for the FAME biodiesel  
6 industry, but also for the vehicle fleet. As new modern  
7 diesels are being deployed in California, as a growing part  
8 of the fleet, you know, there are still -- maybe Tom has  
9 some insights on whether additives now help resolve some of  
10 the concerns that the engine manufacturers and emission  
11 control equipment manufacturers have. But I think we need  
12 to factor in that aspect of this, as well, because this  
13 program is about, you know, two legs of the transportation  
14 stool, primarily, it is about the vehicles and the fuels.  
15 And we need to make sure that we understand that these  
16 things are going to be working together well going forward.  
17 Certainly, there is a large legacy fleet of diesels that  
18 probably will be robust enough to be able to remain  
19 relatively unaffected, but with newer modern diesels, I  
20 think there are some concerns for what the implications are,  
21 you know, for the use of FAME biodiesel. So I just want to,  
22 you know, offer that caution.

23 COMMISSIONER BOYD: Jan.

24 MS. SHARPLESS: Yeah. Along the lines of the  
25 analysis that people are looking for to address some of the

1 critical issues, in your category under technical assistance  
2 and environmental market technology analysis, you have like  
3 four different types of tool development models and analysis  
4 that you are talking about funding, I think, to the tune of  
5 \$6 million between them, and some of them, it sounds like,  
6 there is already a platform established for some of those  
7 tools that just need further enhancement and development.  
8 It is not clear whether some of them are multi-year or one  
9 time, but the point that I am trying to make along the lines  
10 of this is this really sounds like great tools that would  
11 really help advance the development of your Investment Plan.  
12 Would that we had them now because I think they would  
13 address some of the questions that are being raised here  
14 today. Are these tools going to be ready or at least  
15 partially ready to be used to analyze some of the 2010-11  
16 plan? Or do we wait for the next iteration, Chuck?

17 MR. MIZUTANI: On some -- I think on pretty much  
18 all of them, anything on the 2010-2011 would be a  
19 retrospective for those tools. When they are developed, we  
20 would probably looking more for future funding cycles.

21 MS. SHARPLESS: This is what? A five-year  
22 program? Oh, seven, seven. Well, I would hope that the  
23 tools were not available in Year 6 because it would be  
24 really nice to have them and I guess I would say that I  
25 really support this aspect of expenditure of funds because

1 it really does help you address some of the critical issues.  
2 And then, Chuck, you mentioned something about somewhere in  
3 this Investment Plan would be money to help improve fuel  
4 economy. Was it in the heavy-duty area?

5 MR. MIZUTANI: Where I mentioned that was on the  
6 Innovative Technologies.

7 MS. SHARPLESS: So the scope is to use that \$3  
8 million, but you do not quite know what might be out there,  
9 what idea might be out there, but to improve fuel economy  
10 basically in vehicles? Is that what you are looking at?

11 MR. MIZUTANI: Probably primarily, but if you look  
12 at the listing, it also covers components, not only for  
13 vehicles, but also even for production and things like that.  
14 It is fairly broad, but it is looking at the efficiency  
15 category.

16 MS. SHARPLESS: I would just say that, you know,  
17 when you look at -- and I think it was in your Investment  
18 Plan at the very beginning, the introduction, the trend is  
19 that the gasoline use is going down, and diesel use is going  
20 up, and one of the things that that, I think, demonstrates  
21 is the fact that we have not been able to really improve  
22 fuel efficiency for heavy-duty, and however you manage to do  
23 that, I think that would help address one of those very  
24 critical issues that we can see right now is a trend.

25 MR. MIZUTANI: Thank you.

1                   COMMISSIONER EGGERT:  A couple quick comments.  I  
2 know, if you do take a look at that section, which is page  
3 68 of the draft Plan, Innovative Technologies and Advanced  
4 Fuels, there is sort of a list of -- I think it is maybe  
5 about nine bullet points, and it is a bit of a catchall, but  
6 I certainly personally believe there is a lot of really  
7 interesting ideas that exist within those bullets, and I  
8 think one of the things we would be interested in feedback  
9 on is where we might invest within those categories; again,  
10 sort of what would be the best targeted investments and what  
11 would be the nature or mechanism by which to achieve the  
12 goals that are sort of outlined here.  I also would just  
13 make a quick comment with respect to the Technical  
14 Assistance components, the first one being the lifecycle  
15 assistance for full fuel cell cycle analysis.  That is  
16 ongoing certainly as part of the Low Carbon Fuel Standard  
17 regulatory development that are continuing to develop more  
18 pathways for assessing the carbon intensity, so I think this  
19 sort of supplements that work.  And then, even the second  
20 bullet, which talks about UC Irvine's modeling tool for  
21 spatially and temporally resolved energy and environment, an  
22 environmental tool looking at infrastructure distribution,  
23 is an ongoing activity that is providing valuable insights.  
24 I would also be remiss not to mention UC Davis has a similar  
25 activity going on -- not mentioned here -- under their

1 Sustainable Transportation Pathways Programs. So I think  
2 some of this is sort of new, but a lot of it is sort of  
3 contributing to ongoing processes that are providing inputs,  
4 even in the current Investment Plan. And actually, I do not  
5 know if, Chuck, you wanted to maybe say a little bit more to  
6 Jan's last point about the heavy duty technologies?

7 MR. MIZUTANI: So I suppose we did sort of have  
8 one idea and that was to establish centers of excellence in  
9 which there would be a unified and focused look at what --  
10 how to best improve the efficiency of these medium- and  
11 heavy-duty vehicles. So I think we do see -- both ARB and  
12 us -- really are looking at the medium- and heavy-duty  
13 market as a prime market for improvements.

14 COMMISSIONER BOYD: Jan, Emmett, and then Tom.  
15 And let me just say, in response to Bonnie's comment earlier  
16 about what are we talking about, and I said this slide,  
17 without realizing that this is the concluding slide of the  
18 whole section, so really discussing the plan is open-season  
19 right now for the staff draft plan.

20 MR. EMMETT: Okay, well, I will start with a  
21 specific slide-related question and that is on the natural  
22 gas slide, I was just curious, the first bullet allocation  
23 for the medium- and heavy-duty trucks, I am curious how this  
24 may or may not overlap or dovetail with funding at CARB or  
25 through the [inaudible] Program, and if that was really

1 thought through, and I mean, it is obviously great to have  
2 more of these trucks and buses, but I just wanted to know if  
3 that was decided on in the context of that, and if therefore  
4 the other categories still make sense.

5 MR. MIZUTANI: We have been in discussions with  
6 ARB, as well as the South Coast Air District in looking at  
7 how we can be complimentary in our funding, and also our  
8 funding process. It is a discussion that is still  
9 continuing. But, definitely, we would agree with you that  
10 we have to look at the other programs that look at this  
11 sector.

12 MR. EMMETT: So, without knowing what is happening  
13 on the funding of the trucks and buses elsewhere, I would  
14 just be curious to know whether or not it might make sense  
15 to increase some of the other categories under natural gas  
16 for biomethane production, for example. I just do not -- I  
17 think it is worth knowing what the other piece of the puzzle  
18 are -- or the fueling stations -- just arbitrary, but -- and  
19 then, since I have the mic, I will just cover my other  
20 points --

21 COMMISSIONER EGGERT: Before you do that, I wanted  
22 to just invite a comment from Andy earlier.

23 MR. PANSON: Yeah, this is Andy Panson with ARB,  
24 and I work on the EQA, the ARB side of AB 118, and we are  
25 working very closely with the Energy Commission and the



1 natural gas is actually the perfect example. We talked  
2 about how to split up the heavy-duty truck category, and in  
3 our first funding plan there is no natural gas funding  
4 because we decided they were going to take natural gas. We  
5 were focused in on hybrid truck deployment. We talked about  
6 this year's plan and we are going to continue that, so we  
7 are very much actively having those discussions and the plan  
8 does reflect that.

9 MR. EMMETT: Great. My other quick comments were  
10 on the Hydrogen funding allocation. I think it looks great.  
11 In fact, I will just say that this plan is really well  
12 thought out and comprehensive. Obviously the slides do not  
13 hold all the detail, but if you dig into the plan, it does.  
14 I would make a couple of recommendations on the Hydrogen  
15 front to think about, one is sort of -- you referenced SB  
16 1505, which CARB is currently developing the regulation for  
17 right now, which sets environmental performance standards  
18 for Hydrogen fuel, and in light of the renewable  
19 requirement, it might be worth thinking about in terms of  
20 Hydrogen funding, not just the actual stations, the  
21 infrastructure, but some form of incentive funding for  
22 centralized production of renewable Hydrogen, to then  
23 ultimately supply stations. And the reason for that is that  
24 requirement is an aggregate statewide requirement, and it is  
25 not a per station requirement, and so the more we can do to

1 invest in the renewable Hydrogen, the easier it is for the  
2 industry to meet that requirement because that fuel would be  
3 available. And I think the hurdles are higher, it is more  
4 costly, and it seems like an appropriate place for the state  
5 to be investing in renewable Hydrogen production. So  
6 obviously with conversations with industry, if you get a  
7 sense of how best to do that, I do not know, but it just --  
8 in terms of thinking about it a little bit differently and  
9 not just the actual retail infrastructure, but the  
10 production facility that might support that infrastructure,  
11 with the Hydrogen that is going to meet the standard moving  
12 forward. Let's see, the other question would be about home  
13 refueling. I know we looked at that quite a bit on the  
14 electric drive side. There are some companies, Honda being  
15 one, and obviously we need -- a time frame there is  
16 important, but home re-fuelers are also applicable on the  
17 Hydrogen side and I think it would be worth thinking about  
18 what kind of funding may or may not be appropriate for home  
19 refueling of Fuel Cell Vehicles. On the electric drive  
20 side, I want to -- and someone else made the comment, I  
21 think it was Shannon -- of the importance of home charging,  
22 and support for home charging, and I would agree  
23 wholeheartedly, you know, this public infrastructure is  
24 important to upgrade it, make sure it is there, but we want  
25 to really encourage off-peak charging and there is no better

1 way to do that than to have home charging and to ensure that  
2 that is a key piece that is really culled out in future  
3 solicitations, I think, is important. And also, I do not  
4 know if it falls under your innovative category, or under  
5 the electric drive, but I understand that this program is  
6 really about deployment, getting stuff on the streets, but  
7 that said, there was an acknowledgement that there was a  
8 place for appropriate RDND, and in the area of V2G, and sort  
9 of the interconnectivity of vehicles to the grid, for  
10 management of the battery of peak shaving and whatnot, I  
11 think it might be worth thinking about using AB 118 funds to  
12 start tackling that more than it has been tackled in the  
13 past. So some comments.

14 COMMISSIONER BOYD: Don.

15 MR. COLMAN: I have a comment on the phone.

16 COMMISSIONER BOYD: Please, yes. Who is this?

17 MR. COLMAN: Brooke Colman of Fuels Alliance.

18 COMMISSIONER BOYD: Thanks, Brooke.

19 MR. COLMAN: Just quickly, the sustainability  
20 provision, no issue with doing sustainability analysis, but  
21 there is a certain one-dimensional -- it has a certain one-  
22 dimensional flavor focusing on bio-energy and biofuels; it  
23 culminates with the statement: "To ensure that water use  
24 reduction measures and best management practices are used in  
25 the production of biofuels." And that is on page 76. Two

1 issues with that, one is that I think sustainability applies  
2 to all fuel, certainly land intensive, no one has to explain  
3 to me that land intensification is an issue of concern in  
4 California, or in the United States, but there is also  
5 lithium intensification, nickel intensification, shale hydro  
6 fracturing intensification in the case of natural gas,  
7 people have talked about the low carbon scores for Hydrogen,  
8 note that is partially based on the assumption that  
9 renewable resources will penetrate the electricity grid and  
10 one of those renewables is biomass, is there -- certainly  
11 this is not something that is unique to biofuels, yet it  
12 seems like it is being treated as unique to biofuels. Is  
13 there sensitivity to that and, and add-on question is, are  
14 you going to specifically identify these other fuels and  
15 balance this sustainability investigation moving forward?

16 COMMISSIONER BOYD: Jim McKinney is coming to the  
17 microphone.

18 MR. MCKINNEY: Hi, Jim McKinney again. Brooke,  
19 you are raising good points, and I do not know if you sat  
20 through some of my sustainability working group  
21 presentations. I think the point you are making about  
22 looking at the sustainability of other parts of the vehicle  
23 and alternative fuel parts of the fleet is important, but  
24 the near term concerns have always been biofuels and the  
25 potential for adverse effect on natural resources through

1 rapid deployment and development, and scaling up of the  
2 biofuels industry. So that is where Energy Commission staff  
3 have decided to allocate their resources in the near term.  
4 But, again, the list of things you listed out are things we  
5 have talked about internally, and it is just a matter of  
6 time to try to get the program right for biomass-based  
7 materials, and then kind of move on to different parts of  
8 the program.

9 MR. COLMAN: So you have made a decision to start  
10 with biofuels, uniquely?

11 MR. MCKINNEY: Yeah, I guess you were not there  
12 for my Sustainability 101 presentation, but we really did  
13 try to make that clear to folks, that -- I do not want to  
14 imply legislative intent, but if you read AB 118 statute,  
15 the direction is to look at natural resource protection  
16 issues, so that is in fact what we are doing.

17 MR. COLMAN: I understand, but don't these other  
18 -- I do not know if -- we can continue this offline, but  
19 just for the record, I am not sure if that squares with some  
20 of the forecasts that have been made for meeting the low  
21 carbon fuel standard requirements and the compliance  
22 scenarios. The intensification particularly in lithium is  
23 unquestioned, right?

24 MR. MCKINNEY: Well, I am always happy to have  
25 these discussions with you, so let's continue them.

1 MR. COLMAN: Great. Thanks, Jim.

2 COMMISSIONER BOYD: Let me just add -- this is Jim  
3 Boyd -- let me add a slight addendum to this discussion.  
4 The staff, and Jim McKinney, in particular, is also  
5 responding to an issue that has been raised in multiple  
6 state agencies at the same time, and working groups have  
7 been formed and so on and so forth, so some priority has  
8 gone on in the biofuels area just because other state  
9 agencies who have, like the Board of Forestry, or the  
10 Department of Forestry and Fire Protection -- I will never  
11 be able to call them "Cal Fire," but -- and the Air  
12 Resources Board with the Low Carbon Fuel Standard, and all  
13 of these agencies have been focused in on that subject  
14 because it is being pushed in certain areas, so it has  
15 gotten a priority. I do not -- as Jim indicated, I do not  
16 think the agency intends to neglect anything, but  
17 unfortunately we only have one Jim McKinney working on this  
18 and it is a little bit of a problem. So, in any event...

19 MR. COLMAN: Yeah, I wanted to quickly be clear  
20 about something. I think, you know, the first reason that I  
21 am raising is it is because we represent a lot of biofuels  
22 folks who are concerned about competitive neutrality and  
23 obviously are concerned about conditions being placed on  
24 eligibility that are not placed on other fuels, but the  
25 other reason I raise it, which might be a surprise to you, I

1 think that one of the great inhibitors of reasonable  
2 progress with regard to sustainability is when it is applied  
3 to only one fuel, because that pits that fuel sector, that  
4 isolated fuel sector, against the selective, you know,  
5 enforcement of something like the best management practices  
6 for eligibility. So, you know, just take it as sort of a  
7 35,000-foot comment, but I think going at sustainability  
8 from a fuel neutral perspective is as important as looking  
9 at other things from a fuel neutral --

10 COMMISSIONER BOYD: Yeah, your point is well  
11 taken. I mean, and I have been quite an advocate of the  
12 dilemma we are getting ourselves into with regard to equity,  
13 booring in at one area and, I mean, we will not have an  
14 equitable world until we have done these kinds of analyses  
15 and cradle to grave analyses on everything where you can  
16 compare them equally. But I guess everybody is doing the  
17 best they can. I am not sure who -- who was next, Tom?

18 MR. CACKETTE: I just wanted to go back to the  
19 heavy-duty discussion where there was some reference to  
20 perhaps spending money to increase the efficiency of heavy-  
21 duty diesel engines, and I think that probably would not be  
22 a good priority to spend money on because, under the ISA,  
23 the Federal Energy Act, both NTSA and EPA are charged with  
24 -- or, at least NTSA is charged with adopting fuel economy  
25 standards for heavy-duty trucks, and the EPA is developing

1 greenhouse gas standards for heavy-duty trucks, for the  
2 engines themselves. So there is going to be a significant  
3 change there from a regulatory focus and so, other than  
4 perhaps some ancillary all-fuel engines that might get  
5 missed in the process, there will be a strong pressure to  
6 further improve the efficiency of heavy-duty diesel engines.  
7 And the second thing is, more comment in general, I could  
8 not tell in a number of places in the plan, when we are  
9 talking about development, whether the idea of someone  
10 bidding on "I would like to develop a new engine or an  
11 alternative fuel version of an engine, and I would like the  
12 state to use 118 monies to help me develop that engine to  
13 increase the supply in variety of engines out there." I  
14 think that is something that the plan should specifically  
15 address if you are going to encourage that or not, and I  
16 know my recommendation would be not to encourage that -- I  
17 think that is like going on a large sailboat, it is a giant  
18 hole you pour money in, and you have no idea what you are  
19 going to get out the other end. And there is enough  
20 pressure on the real people who make engines to do that kind  
21 of development.

22           COMMISSIONER BOYD: Well, both your points, from  
23 my perspective, are good ones. On the latter point, and  
24 then the staff really ought to be commenting on the plan,  
25 but on the latter point, I think we do follow kind of a



1 policy along the lines that you were even suggesting. I  
2 mean 118 is kind of demonstration deployment biased, and if  
3 we wanted to go into some new engine technologies, our other  
4 PIER Research Program might be the area where we would do  
5 that, although we do not have a lot of latitude. And to the  
6 best of my knowledge, other than in the past, and maybe even  
7 in the present, engines and stationary energy applications  
8 of where more of that emphasis has gone, but always spills  
9 over, but I do not think we are very deep into that, but  
10 your point is a good one, both of them are good ones with  
11 regard to what we need to be careful in what we say in the  
12 final Investment Plan.

13           COMMISSIONER EGGERT: Maybe just a question. And  
14 actually I agree wholeheartedly with your points. Within  
15 the area of the Innovative Technologies and Fuels, there is  
16 also discussion about more generic research relating to  
17 activities that could provide improvements in efficiency  
18 overall to, you know, for example, heavy-duty engines and  
19 power trains, including controls and on-board diagnostics  
20 technologies that might be a little bit more generic to the  
21 sector. And I guess I would invite your thoughts on that,  
22 as well, if you see any opportunities that could exist to  
23 invest in sort of more like systems development activities  
24 that could then be applied across, for example, heavy-duty  
25 engines, power trains.

1                   MR. CACKETTE: Do you mean like how you operate  
2 the trucks and the movement type of thing, or are you  
3 talking about technologies? I do not understand the system  
4 thing for technology.

5                   COMMISSIONER EGGERT: Yes, I mean, maybe the best  
6 example I could give, which is a little bit of a departure,  
7 would be for example hybrid control systems, so trying to  
8 optimize the relative contributions of engine vs. battery or  
9 hydraulic system for hydraulic hybrids, that would then be  
10 information and the technologies that would be available to  
11 all providers of those.

12                   MR. CACKETTE: No, I personally do not think it  
13 really works that way, you know, developing optimization of  
14 engines is something that is specific to an engine or an  
15 engine drive train system, I do not see where you can just  
16 develop one hybrid controller, for example, that would be  
17 usable by lots of different people. It might help people  
18 who are trying to produce 100 or 500 of a unique type of  
19 vehicle, but that is not in my view a sustainable effort,  
20 and I believe the car companies and the truck companies and  
21 the engine companies, you know, they are doing those kind of  
22 things now, and if they are doing them, then us having the  
23 kind of money we have into it is not going to really  
24 influence the end result, but it does drain the \$100 million  
25 a year that you have available. So I just do not see it as

1 a very high percentage payoff to do those kinds of things.  
2 And what brought it up was under Innovative Technologies,  
3 that it talks about advanced -- at least on the bullets --  
4 advanced internal combustion engines resulting in a 40  
5 percent efficiency improvement, while on that light-duty  
6 side, of course, there is just tremendous pressure for that  
7 to happen anyway. And as I said, on the heavy-duty side,  
8 there is going to be greenhouse gas standards from EPA that  
9 will do exactly the same thing. So I do not think we need  
10 to invest in that at all.

11 COMMISSIONER BOYD: Point well made, but I will  
12 say, from just kind of a energy policy perspective, we will  
13 never not talk about efficiency just to talk about  
14 efficiency because efficiency is job 1 here in the energy  
15 field. And Anthony is new to this, but he will hear me make  
16 cracks about the California Electricity Commission -- oops,  
17 I mean the California Energy Commission -- once in a while  
18 as we forget as an agency oftentimes to talk about  
19 efficiency in the non-electrical arena, so sometimes it is  
20 just to drive a point that that is a very important policy  
21 issue we prod verbally -- if not with money -- people to  
22 continue to address that, and to indicate perhaps, you know,  
23 if we ever come across some area where we would mutually  
24 agree there might be something we should pursue, then we at  
25 least have notified that we are interested in that subject

1 if there is ever anything worthwhile or needed. Then, one  
2 of the key things that we have to deal with is, you know,  
3 where should we be spending the taxpayers' money vs. where  
4 is the money going to flow in the private sector anyway that  
5 we have no business having to go into that? Or, you know,  
6 where might the little bit of money from us leverage a lot  
7 of private money and do some good? So that probably  
8 contributes, although to many of some of the vagaries that  
9 seem to appear, I guess, in a draft plan when you are not  
10 quite sure this far in advance where you are going to end  
11 up, it depends a lot on what happens. Now, we spend a lot  
12 of time defending your draft over there, guys, have you got  
13 anything to add to this? And I do not want to leave Leslie  
14 out, either, guys and gals. Chuck, any comments? Or did we  
15 steal all your thunder?

16 MR. MIZUTANI: Oh, no. I mean, what we are  
17 looking for, really, is input, so we are taking it all in.

18 COMMISSIONER BOYD: All right, Peter and then  
19 Bonnie.

20 MR. COOPER: I wanted to speak to the work force  
21 issues starting on page 70. And I think it was mentioned at  
22 the top of the meeting that the State Workforce Investment  
23 Board has done a really great job at coordinating multiple  
24 stakeholders in the workforce system in California and  
25 figuring out how to use funding wisely, and really be

1 industry-driven workforce systems. The Energy Commission  
2 has been very involved in this process and it is kind of  
3 reflected a bit on page 71. I know the money is just now  
4 getting out the door and it looks like, from this draft  
5 document, that it is the plan to evaluate those programs  
6 before deciding where to allocate more funding for workforce  
7 training in this area, focusing on possible areas in the  
8 future of disenfranchised adult colleges and universities,  
9 and I would like to see added to that unemployed,  
10 underemployed, and incumbent workers. With this economy  
11 dragging on, a lot of people will not be back to work soon  
12 and a great time to train people so that the state can get  
13 going fast when, in fact, things start to turn around. So  
14 that is just kind of my comment. My question, I guess, for  
15 staff is, it seems like the money for the 2010-2011 cycle  
16 has been eliminated or decreased substantially, it looks  
17 like it is eliminated at this point, so I just wanted to get  
18 a little bit more information about that decision and how it  
19 was reached.

20 MR. MIZUTANI: It really is that we had \$15  
21 million allocated, we have encumbered \$9 million of that, we  
22 are in the process of encumbering the remaining \$6 from the  
23 current Investment Plan, and unfortunately the time it has  
24 taken, we have not been able to take advantage of the  
25 results from those programs. The intent of those three

1 interagencies is to try and cover all aspects of the  
2 workforce and I thought that, you know, when we were talking  
3 about the unemployed and disenfranchised, I thought that was  
4 in one of our interagencies -- the purpose of addressing  
5 that group. And so, given that -- if we could cover all of  
6 the groups, I think we need to -- it would be prudent to  
7 wait to see the results of the current funding.

8 MR. COOPER: Okay, so just to clarify, currently  
9 the way it is allocated, there is zero dollars for workforce  
10 --

11 MR. MIZUTANI: Yes.

12 MR. COOPER: At this point -- for the 2010-2011  
13 cycle.

14 MR. MIZUTANI: Correct.

15 MR. COOPER: My suggest that you do not eliminate  
16 a good thing, it is a lot of effort and collaboration that  
17 has gone into the workforce side of it, and so my suggestion  
18 would be that some money be allocated for workforce in the  
19 2010-2011 cycle.

20 MR. KAZARIAN: Can I just quickly tap on to what  
21 Peter said. I serve on the ETP panel and we just pushed out  
22 our first dollars for workforce training and I know it is  
23 going to good businesses out there, I saw their business  
24 plans, and I think it would be a mistake to eliminate it  
25 altogether, so I would agree with Peter on that point.

1           COMMISSIONER BOYD:  Bonnie, and then we will go to  
2 the phone.  And then Roland -- oh, Mark.

3           MS. HOLMES-GEN:  Yeah, I just wanted to ask a  
4 question about the electric drive category.  And I  
5 appreciate that you have a large percentage of funding in  
6 that category, and I think that is appropriate, in fact, I  
7 think it possibly could be a little larger, and I am  
8 wondering, you know, I know that in terms of the light-duty  
9 side of this, it seems like the thinking is that is going to  
10 be handled through ARB's 118 component in terms of  
11 incentives for the deployment of light-duty vehicles, but I  
12 just wanted to check in on that, and so how are we handling  
13 the light-duty piece of this, what expectation is there for  
14 funding through the ARB in the next year for that piece, and  
15 is there funding needed for technology development, battery  
16 development, that could be put into the CEC side to enhance  
17 this category?

18           MR. MIZUTANI:  In terms of the light-duty area,  
19 ARB has funds for that, and we broached the topic of whether  
20 it would be beneficial to have additional funding.  But at  
21 this time, what ARB is looking at to see what is -- I guess  
22 what is the demand for those funds.

23           MS. HOLMES-GEN:  So you are planning to go through  
24 this one cycle -- it is just -- yeah, maybe you could jump  
25 in.

1           MR. PANSON: We are definitely, again, working  
2 closely on that category, and as you I am sure remember,  
3 Bonnie, and others may or may not know, we have allocated  
4 about \$4 million to light-duty rebates in our first funding  
5 plan, that program is actually just getting off the ground,  
6 and we are going to do a consumer launch here in the next  
7 month. We started workshops for our second funding plan.  
8 We have not gotten to specific dollar figures yet, but we  
9 have clearly indicated the plan to continue that type of  
10 program. When we took it to the Board last year, we  
11 presented it as, you know, we are looking to do multiple  
12 years of funding here. And so we are going to make a second  
13 investment likely this year. At some point, the number of  
14 vehicles coming to market is going to probably out-strip  
15 what we can fund with our money alone and we have been  
16 talking to the Energy Commission about combining funds at  
17 that point, and it is just a matter of when we are going to  
18 get to that point, and I think our initial assessment is it  
19 is likely not in this plan, but if I can look in the crystal  
20 ball a year from now, I think we will be talking about some  
21 kind of a joint effort. So it is something that we are  
22 thinking about, we are on top of, I just think we have not  
23 hit that uptick in demand quite yet.

24           MS. BAKER BROWNSTETTER: Is that for just vehicle  
25 purchases? Or does that include infrastructure and fueling



1 stations?

2 MR. PANSON: Good question. When you are talking  
3 about the ARB money, it is just vehicle purchases. Our  
4 portion of the statute does not actually include  
5 infrastructure, we just fund vehicles and equipment. The  
6 infrastructure does come exclusively on the Energy  
7 Commission side, and there is an infrastructure investment  
8 in last year's plan and this year's draft plan.

9 MS. HOLMES-GEN: I guess just the other question  
10 was if you had looked at other technology development  
11 related to light-duty and electric vehicles, battery and  
12 plug-in.

13 MR. MIZUTANI: Not in this Investment Plan. If  
14 there is one that you know of, we would be happy to hear  
15 about it.

16 MS. HOLMES-GEN: Well, I will think about how to  
17 get back to you on that.

18 MR. MIZUTANI: Thank you.

19 COMMISSIONER BOYD: All right, folks on the phone,  
20 I promised you an opportunity.

21 MR. SIMPSON: This is Harry Simpson. First, I  
22 wanted to just make a quick comment to clarify something  
23 earlier, then I have a question. With regards to air  
24 quality standards, I apologize to Bonnie for not perhaps  
25 making a clear attack on this, which I think everyone on the

1 committee, and certainly people, the stakeholders that I  
2 represent on the biomass-based diesel industry recognize the  
3 need not to backslide on any air quality standard as it  
4 relates to the fuel itself, the production process, or the  
5 deployment technology; however, I would like to point out  
6 that ARB has not depleted its multi-media study on the air  
7 quality impact of specifically bio-diesel, this is still  
8 underway, and one of the reasons why is that ARB is  
9 considering a fairly large volume of published research from  
10 the likes of NREL and Southwest Research Institute that  
11 shows, you know, negligible to zero NO<sub>x</sub> impact as it relates  
12 to lower level blends of V-20 and less biomass-based diesel.  
13 So that was my comment. My question, it is really for the  
14 Commission, I was wondering if you can tell the Committee  
15 here, what are the metrics for determining the effectiveness  
16 and impact of the various allocations for the different  
17 categories, and I guess specifically can the Commission show  
18 the Committee, what are the expected results for VHG  
19 reduction and petroleum displacement, specifically for the  
20 investments in each category?

21 MR. MIZUTANI: Well, I guess one thing to state up  
22 front, in terms of the categories and the allocations, they  
23 are not based upon any analytic methodology in coming up  
24 with a precise number. What the method is, sort of using  
25 what the goals are, first being the GHG emission reduction,

1 and then after that, you know, other goals, and then finally  
2 sort of what the current state of the market is in terms of  
3 potential, and so it is more of a qualitative analysis  
4 rather than a quantitative, so do not look at these numbers  
5 as if they were rigorously developed.

6 MR. SIMPSON: Well, Chuck, in response to that, I  
7 think it goes back to something I brought up earlier and,  
8 you know, we broke for lunch and said we would address it  
9 afterwards, which is what are the criteria for allocations,  
10 and you are saying there is no precise methodology, that,  
11 you know, first and foremost, you are using the goals for  
12 GHG, so it applies that you -- I mean, are you telling me  
13 that -- it would imply that you would have a way to measure  
14 the impact -- if you are going to spend a million dollars on  
15 X, you know, what is the GHG impact of that? And if your  
16 second criteria is potential for implementation, I would  
17 argue, then, perhaps your allocations do not really reflect  
18 what is truly implementable and what has the biggest bang  
19 for the buck when it comes to GHG reduction in the next five  
20 to 10 years.

21 MR. MIZUTANI: First off, in terms of --

22 MR. SIMPSON: And I would certainly think it would  
23 be helpful, if you go through the exercise, and I am sure  
24 the Commission has the brain power and you have got the  
25 carbon production numbers from CARB, you have pulled

1 together some numbers recently in Appendix A as part of that  
2 vision study, you have got the Cal CARB data, which looking  
3 at some of your vehicle penetration numbers, I do not know  
4 if it necessarily agrees with it, but I think there is  
5 certainly a way to measure the anticipated GHG reduction and  
6 the petroleum displacement for the investments in each  
7 category. And if you have not gone through that exercise, I  
8 think the Commission is really not living up to its  
9 responsibility to try to allocate the dollars in a way that  
10 is consistent with the policy objectives.

11 MR. MIZUTANI: What you are suggesting is  
12 basically what we did. If you look at the report, one of  
13 the first things that we did was we looked at what the goals  
14 would be in various future years, and particular for us is  
15 2020 and 2050. Based upon what those GHG reduction goals  
16 were, we then developed scenarios to identify what would be  
17 needed from -- what could be possible and what would be  
18 needed from each of the alternative fuel categories, and we  
19 ran a scenario. And that scenario basically served as a  
20 guide for us to focus in on what type of funding what be  
21 needed in each of these categories.

22 MR. SIMPSON: Well, I would like to see some more  
23 details on those scenarios, because if you look at -- it is  
24 hard for me to imagine that you can come up with an accurate  
25 scenario for 2050 if your scenario for 2020 is perhaps

1 flawed. Looking at the Cal CARB data, you know, your  
2 vehicle penetration does not -- what you show in Appendix A  
3 does not reflect the consumer preference data that was  
4 picked up in the Cal CARB Study through 2020. You know, if  
5 you look at GHG impact, even for 2020, in looking at the  
6 implementation schedule for what is really feasible from  
7 where we stand today, sitting here in 2010, i.e., in the  
8 next 10 years, it is hard to see where Hydrogen is going to  
9 have that GHG impact.

10           COMMISSIONER EGGERT: Maybe I will make a comment  
11 here. This is Commissioner Eggert. I think we should also  
12 be careful that these are scenarios, they are not  
13 predictions, and I would say that there is some at least  
14 attempt here to do some quantification of future potential  
15 savings. There is also the actual sort of the near term  
16 calculation of carbon intensity on a per unit of energy  
17 delivered basis suggested for the energy efficiency of the  
18 vehicles, so if you look at, for example, on page A9 for the  
19 gasoline substitutes and A10 for the diesel substitutes,  
20 there is at least there a quantification basis on the per-  
21 unit of energy delivered by the fuel. I would suggest that  
22 there is an opportunity here to improve upon what has been  
23 done, and I was heartened, if we go back to a previous  
24 conversation about the investment in the technical  
25 assistance component, which includes market and technical

1 analysis, to further bolster this work here, and do it on a  
2 more rigorous basis, on a fuel-by-fuel basis, as well. So I  
3 think your points are well taken, although I would suggest  
4 that some of what you are suggesting has been done. Of  
5 course, everything can always be done better and I think  
6 that is the intent.

7 MR. SIMPSON: But, I mean, I am not suggesting no  
8 work has been, I would like to see the work that has been  
9 done in a little bit more detail than what is provided in  
10 Appendix A, but I think the issue is, you know, the  
11 allocations from the first Investment Plan and the second  
12 Investment Plan, if you actually try to measure penetration,  
13 you know, numbers of vehicles, how much fuel is going to get  
14 used, and measure that against petroleum displacement and  
15 GHG reduction, the dollars do not add up to the relative  
16 impact. It is a fence of how do you measure bang for the  
17 buck.

18 COMMISSIONER EGGERT: Are you suggesting in terms  
19 of the actual displaced fuel over the period of the  
20 investment, or what its potential is to have an impact on?

21 MR. SIMPSON: Let's just look at the investment  
22 dollars. For instance, if you fund a Hydrogen fuel station  
23 that has -- that cost \$1.5 million, that can only sustain at  
24 most between 80-100 vehicles, what is the petroleum  
25 displacement and GHG impact of that vs. making a similar

1 investment, involve fuel infrastructure to enable broader  
2 blending of alternative fuels, now giving an alternative  
3 fuel type that has an 86:60 percent carbon reduction on a  
4 per mega joule basis per the CARB data. That is what I mean  
5 by bang for the buck.

6 COMMISSIONER EGGERT: Right. I think we have some  
7 comments here on the table. Go ahead, Dan.

8 MR. EMMETT: This is Dan Emmett. I think you  
9 cannot just look at it in a static way for one station, we  
10 have to look out towards 2050 and the ultimate benefit that  
11 will get by beginning to tackle the barriers that exist  
12 today with lack of infrastructure, whether it is Hydrogen or  
13 whether it is electric drive. We have to plant trees, seeds  
14 today for trees that will grow and bear fruit in the 2050  
15 time frame that will get us to our 80 percent goal. So I  
16 think we need a longer time frame and recognize that these  
17 investments need to be made today.

18 COMMISSIONER EGGERT: Yeah, I would just reiterate  
19 something I said at the beginning which, again, we are  
20 really a bit player in this game, you know, we are trying to  
21 see the market here and, to ultimately achieve any real  
22 impact on GHG is going to require a much much larger  
23 investment from the private sector, so any -- I think it is  
24 a mistake to kind of look at the specific per dollar amounts  
25 and just look at that particular investment and how it

1 actually displaces either petroleum or reduces GHG's. You  
2 have to look at that investment in the context of what the  
3 potential investment will accrue from the private sector and  
4 over, as Mr. Emmett said, the long term, what is going to  
5 have the maximum impact on our GHG and petroleum goals.

6 MR. COLEMAN: To echo Harry's question, though, do  
7 we have a methodology for calculating that, or thinking  
8 about that in some way? Because it sounds like we are  
9 making assumptions about a dollar today invested in, say,  
10 Hydrogen infrastructure is going to lead to reductions in,  
11 say, 2040. But do we have a way of actually thinking  
12 through the potential there?

13 COMMISSIONER EGGERT: Who was speaking there?

14 MR. COLEMAN: Sorry, it is Will Coleman.

15 COMMISSIONER EGGERT: Yeah, I guess I would invite  
16 comment from the staff, but, again, I think that is exactly  
17 what we are talking about, is looking at scenarios,  
18 plausible scenarios for future penetration of different  
19 vehicle and fuel types, and what that would accrue in terms  
20 of fuel savings and greenhouse gas benefits.

21 MR. COLEMAN: Why not come up with a -- you know,  
22 Chuck said there is no precise methodology, and I understand  
23 that is very difficult, but at least take a stab at some  
24 sort of a weighting system where you can really weight that  
25 potential for implementation. You are also saying that



1 there is a need to send a signal to the private sector, and  
2 that has got to have some weight. An impact on GHG  
3 reduction in the near term, medium, and long-term, there  
4 must be some way to do it in a way that is a little less  
5 than a stab in the air is kind of the feeling that I am  
6 getting is where we are at today.

7 MR. MIZUTANI: Will, I apologize for leaving that  
8 impression with my statement. I was not saying that we  
9 stabbed in the air, we have a methodology that is  
10 quantitative, but you cannot -- I would not use it as a  
11 forecast, I would use it as a guide or informational, that  
12 was the point I was trying to make.

13 COMMISSIONER EGGERT: Yeah, and I think another  
14 table to take a look at would be on page 83, which is,  
15 again, not a forecast, a scenario, that suggests an estimate  
16 of GHG reductions in 2020 and 2050. And, again, I think  
17 here is another place where we would benefit from input from  
18 the advisory committee as to whether or not they do think  
19 that these scenarios are plausible, if there is other  
20 information, analysis out there by CALCARS. I know there  
21 has been quite a bit of work done on this by organizations  
22 like Oakridge, UC Davis, UC Berkeley, Stanford, and others.  
23 But I think a lot of this was derived, at least initially,  
24 from a lot of the work done on that AB 1007 report, so this  
25 is sort of an evolution from that effort, as well.

1           MR. COLEMAN: This is Will again. So I think it  
2 is sort of interesting because I think Harry is touching on  
3 something that we spent a lot of time debating in the last  
4 go-round. And I guess, you know, the concern I have is  
5 that, even though these are not hard and fast methodologies  
6 for assessing where we should be putting these dollars, it  
7 seems that a lot of the impact, or a lot of the outcomes are  
8 being set in stone by where we do, in fact, allocate these  
9 dollars at the top level, so whether we choose to put \$22  
10 million into Hydrogen, or \$14 million into biofuels, or what  
11 have you. And so I guess the question is, how do we go  
12 about doing this more effectively? Or how do we go about  
13 getting a little more certainty around those allocations or  
14 how we want to allocate those dollars to technologies, or  
15 should we think a little bit differently about how we define  
16 those categories and allow some of these technologies to  
17 compete so we can actually apply the methodologies that we  
18 are currently applying at a very granular level, so we are  
19 doing it at the sort of subcategory level when you are  
20 talking about different fuel options competing against each  
21 other, you know, in terms of biofuel production, or are you  
22 talking about infrastructure options competing against each  
23 other. But it feels a little like we need to create a  
24 system that allows us to either do that evaluation before we  
25 do the allocations, or we need to create a system that

1 allows these technologies to more broadly compete against  
2 each other based on the metrics that we are setting out as  
3 the priorities of AB 118. So if our priorities are  
4 greenhouse gas reductions, or job creation, or  
5 sustainability, or you name it, then it does feel like we  
6 need -- at the very least, we need some sort of accounting  
7 of how each of these technologies and the dollars being  
8 deployed against them ends up in the near term, and where we  
9 are going in the long-term, and more ideally it seems like  
10 we should have a way of actually having these different  
11 technologies compete against each other.

12 MR. SIMPSON: Is it feasible in light of what Will  
13 is saying to have -- and maybe you already have something  
14 like this -- some sort of a decision matrix where you can  
15 sort of look at these factors and have some idea on how to  
16 weigh it? You know, one case in point is 2020, 2050, I  
17 think pretty much everyone would agree that a forecast or a  
18 series of scenarios that you could come up with 2020  
19 probably has a higher probability of accuracy by an order of  
20 magnitude than whatever you are trying to come up with for  
21 2050. So to weight the ultra long-term of 2050 equally with  
22 the near term of 2020 seems to be fairly problematic in  
23 light of just the nature of trying to make the forecast and  
24 make those bets today.

25 COMMISSIONER BOYD: Okay, I think we have taken

1 into account, or are taking into account what you are saying  
2 and I guess we will have to weigh that as we continue to  
3 work on this plan. Was there anyone else on the phone  
4 before I go to Roland, who is next in the queue? Roland.  
5 Then Mark, then John, I guess.

6 MR. HWANG: Thank you, Commissioner. Just two  
7 quick points and then a question. First of all, let me see  
8 if I understood Commissioner Eggert's question, correct  
9 feedback on the Table 81 of the 2050 kind of breakdown where  
10 our emissions reduction is going to come from, I would say  
11 in terms of our ability to come up with all these things, to  
12 me it looks roughly about right. And to the extent that we  
13 do believe -- my organization believes that 2050 should be a  
14 very key guiding post in terms of how we allocate funds in  
15 the near term, notwithstanding that we do have the 2020  
16 targets in terms of the public dollars, we think it is  
17 appropriate to look at the 2050 kind of timeframe; and the  
18 table that we have here looks, very roughly speaking, to be  
19 about right, and it is probably the best that I can  
20 certainly say in terms of decisions. The second point is in  
21 regards to earlier comments about the focus and maybe the  
22 disparity of focus on one class of fuels vs. the other  
23 class. I would like to strongly support Jim McKinney's  
24 earlier statements about the appropriateness of focusing on  
25 biofuels because of some very, I believe, some very unique

1 challenges associated with biofuels moving into a new  
2 industry that fundamentally is using our natural systems as  
3 its resource base, using a biogenic natural living system as  
4 its resource base, raises some serious questions about  
5 overall sustainability. So I think it is very well  
6 justified as a focus on biofuels, not to say that other  
7 fuels will not have some problem, but I think that there is  
8 a general consensus, and I think that 118, as well as the  
9 Federal RFS2, which does have renewable biomass definitions  
10 which attempt to get at this issue, I think both of those  
11 pieces of legislation does reflect a concern by the public  
12 that we need to move forward very carefully in this biofuels  
13 space. So I just wanted to, again, support the focus by the  
14 Energy Commission staff on biofuels, not to say that we  
15 should not look at other fuels. The focus should be, I  
16 think, in the near term on biofuels. The question that I  
17 have is related to, I think, a point that was raised earlier  
18 today about funding mechanisms. And the question I have for  
19 you, Chuck, you mentioned loan programs perhaps you are  
20 working on with the State Treasury, I believe you said. It  
21 does seem to me in terms of trying to leverage public  
22 dollars, and perhaps potentially maybe a 10:1 leverage ratio  
23 between a grant program and a loan program for every \$10  
24 million, for example, that we put into a grant for biofuel  
25 facilities, if we turn that into a loan guarantee program,

1 you could perhaps put \$100 million of capital available to  
2 such facilities. So it seems like there is a tremendous  
3 potential here, and it does seem to me a pretty critical  
4 financial leverage point in order to extend the state's -- I  
5 agree with Commissioner Eggert -- we are a bit player here.  
6 So can you tell us a little bit more about efforts and what  
7 is the potential for creating kind of a more robust  
8 guaranteed loan program out of these 118 funds?

9 MR. MIZUTANI: So working with the Treasurer's  
10 Office, what they have identified is more funding to, I  
11 think, increase the confidence of the lending institution is  
12 what they are seeing as the need for funds, not necessary  
13 that the funds will be used to get a bond offering and  
14 things like that. So I think the leveraging that you are  
15 talking about probably is like that, but in terms of how we  
16 are planning to use our funds, it would be in other types of  
17 lending mechanisms, not really necessarily loan guarantees  
18 or straight out loans.

19 COMMISSIONER BOYD: Is that it Roland? Or do you  
20 want to react to that?

21 MR. HWANG: Well, I am just wondering, can there  
22 be more focus, I guess. I mean, what is the potential --  
23 and are there other barriers particular to creating a larger  
24 more substantial guaranteed loan program if it is in the  
25 grant programs? Is there any kind of specific reason why it

1 cannot be done, I guess, is the question.

2 MR. MIZUTANI: No, there is no reason why it  
3 cannot be done, but I think it has been our discussions with  
4 the Treasurer's Office, it seems as if the better use is  
5 through these other mechanisms. The other question -- I  
6 guess another aspect of this is the \$10 million -- right  
7 now, what we do not know is, you know, what projects are out  
8 there, and based upon I think this current solicitation with  
9 our funds, we hopefully would find out what amount of  
10 proposals are really revenue-generating proposals, and if  
11 that is the case, then you will see a higher percentage of  
12 that \$10 million being directed to those type of projects.  
13 Right now, we do not know really what the break-out really  
14 is in terms of grants vs. loans.

15 COMMISSIONER BOYD: Mark.

16 MR. LEARY: Thank you, Commissioner Boyd. I guess  
17 I am going to shift the conversation a little bit back up to  
18 40,000 feet and speak something that I think you two  
19 Commissioners have heard, particularly from my organization,  
20 involved with the California solid waste stream for the last  
21 20 years, is the former California Air Waste Management  
22 Board has been -- we have changed California's perspective  
23 on good solid waste as one from something we need to dispose  
24 of to something that now can be considered a resource, and I  
25 think some of that is reflected in this document. And we

1 look to continue that dialogue and continue to shape  
2 California's thinking in that regard. We have had great  
3 inroads and a very cooperative working relationship with the  
4 Air Resources Board, and them coming to appreciate the  
5 benefit of greenhouse gas reductions by alternative ways of  
6 measuring California solid waste and alternative ways of  
7 thinking about products at their end of life, endorsing  
8 thoughts like product stewardship, and the greenhouse gas  
9 benefits that are appreciated as a result of that.

10 Similarly, I think there is an opportunity here to start to  
11 think about the waste stream as a resource for energy and  
12 alternative fuels. And I think it is useful to note and to  
13 add to part of the education that 70 percent of the material  
14 still going to landfills in California are carbon-based, and  
15 the California Biomass Collaborative has analyzed that and  
16 suggested the potential to produce Ethanol and other liquid  
17 fuels from this landfill material, it is estimated to be  
18 equivalent to about 300 million gallons of gasoline. And we  
19 think that, in concert with the idea that using the  
20 California waste stream as a basis or a resource for fuel  
21 contributes to the Low Carbon Fuel Standard, many of these  
22 materials will contribute to a reduction in carbon intensity  
23 of fuels, and as suggested earlier, have tremendous benefits  
24 to the AB 32 Scoping Plan. But beyond that, I think the  
25 industry around California's solid waste is primed and ready



1 to move in directions that go way beyond land filling, and  
2 look for ways to make air contributions and to enhance their  
3 revenue by creating fuels. And I would like to speak simply  
4 to the idea that there is passing mention by the staff about  
5 references to municipal solid waste stream as a potential  
6 source, and I would like to suggest, as an advisor to the  
7 Energy Commission in this capacity, that that passing  
8 reference be made a little clearer and with a little more  
9 emphasis. There is a specific language that we will suggest  
10 in a letter to the Commissioners here in the next couple of  
11 weeks to suggest how that language might be modified, but a  
12 clear explicit mention of the organic fraction of the solid  
13 waste stream as a source material for biofuels, particularly  
14 Ethanol, biodiesel, and biomethane, I think, will provide  
15 the clarity that the applicants can bring and we will  
16 provide them the opportunity to fund it. And we would like  
17 for the applicants from that industry to be clear on the  
18 potential to get some of this money.

19 COMMISSIONER BOYD: Well, Mark, thank you. Your  
20 points are well received. And we definitely want to  
21 communicate loud and clear in that arena. As you know, your  
22 agency and ours, and the Air Board, and others have worked  
23 for the better part of the last decade trying to stimulate  
24 this arena, and we do have the Bioenergy Interagency Working  
25 Group with its two thrusts, biopower and biofuels,

1 struggling to knock down all the hurdles, legislative and  
2 otherwise, that stand in the way of better utilization of  
3 that waste stream for energy. So any words that you supply  
4 that are going to help improve the message, or make the  
5 message clearer, are well appreciated.

6 MR. LEARY: Thank you very much, Commissioner.

7 COMMISSIONER BOYD: John Shears.

8 MR. SHEARS: Yeah, I was going to comment back  
9 when we were in the throes of a conversation with Hydrogen,  
10 so I will yield my time back to the floor.

11 COMMISSIONER BOYD: Tom?

12 MR. CACKETTE: Process question. Do we have a  
13 five-minute period or is that later? I was thinking maybe I  
14 missed out.

15 COMMISSIONER BOYD: Well, we kind of, I think,  
16 Commissioner Eggert and I discussed this before lunch, that  
17 we were already blending just the plan presentation with a  
18 lot of the discussion, but we were just discussing the fact  
19 that we do have to ascertain if any folks here really did  
20 come prepared to make a specific presentation and give them  
21 their five minutes. So I do not think we have gotten to the  
22 five minutes yet, but we better --

23 MR. CACKETTE: That is five minutes for the  
24 Committee members, right?

25 COMMISSIONER BOYD: Individually, right.

1 MR. CACKETTE: Right, well, I do have something to  
2 say at that, so I just wanted to make sure I had not missed  
3 my chance.

4 COMMISSIONER BOYD: Well, let's just see if  
5 Shannon has a question.

6 MS. BAKER BROWNSTETTER: I was just going to do  
7 the same.

8 COMMISSIONER BOYD: And, Pete, is that where you  
9 were coming from, as well? Or do you have a question?  
10 Because you are the one I do know has a presentation you  
11 want to make.

12 MR. PRICE: No, I do not have a presentation, but  
13 I was going to say if -- so I do not know if it is now.

14 COMMISSIONER BOYD: First let's just make sure we  
15 got all the questions answered, and it appears that  
16 everybody's card is up now to get into the five-minute  
17 period, so let me declare the five minutes opened.

18 MS. BAKER BROWNSTETTER: Are you just going to go  
19 around? Or --

20 COMMISSIONER BOYD: Did I hear noise on the phone.  
21 Is there a question out there?

22 MR. SIMPSON: A quick question. What happens --  
23 this is Harry Simpson -- what happens to the '09, the first  
24 Investment Plan monies, if they are not allocated? What  
25 happens to those monies? Do they automatically get added to

1 the 2010 numbers for that category? Or what do you do in  
2 that case?

3 COMMISSIONER BOYD: Well, I think we had a brief  
4 discussion of that this morning, but in this program we have  
5 an extra added period of time to encumber the funds, and I  
6 think it is the organization's objective to let no funds not  
7 get used within the plan, the Investment Plan, that provided  
8 for them. So we are not yet in a position where we  
9 anticipate any money not being spent within that which is  
10 appropriated by the Legislature, which is less than the  
11 original designs for the program, by the way. So we have  
12 not faced that dilemma yet, so there is no roll-over or  
13 anything. We at present, to the best I can tell, see that  
14 we are going to fully utilize the funds that were made  
15 available in the first Investment Plan, which actually cross  
16 two fiscal years, so you are talking about four or maybe  
17 three years, in total, while this plan just gets into what  
18 we intend to do with that money that we hope is appropriated  
19 in the forthcoming budget.

20 MS. HOLMES-GEN: Just a process question, this is  
21 Bonnie Holmes-Gen. Were we going to see any additional  
22 slides?

23 COMMISSIONER BOYD: Yes. It just dawned on me  
24 that, Mr. Smith, you do have that -- I keep calling it a  
25 side-by-side, but is this an appropriate time before we get

1 into everybody's five minutes to pass out your paperwork and  
2 flash the slide? I think before we get into everybody's  
3 prepared, or everyone's five-minute time, let's fulfill that  
4 commitment.

5 MR. MIZUTANI: Commissioner Boyd, in terms of  
6 Roland's questions about the State Treasurer's Office, were  
7 you saying you thought we would be using the money as a  
8 loan? Or in another use in terms of allowing the private  
9 institutions to have a better comfort level in terms of  
10 providing them loans, and let them do what they do best?

11 MR. HWANG: I think the quick answer is that, when  
12 it comes to financing, far outside my expertise -- I pay my  
13 mortgage on a monthly basis, but that is kind of where my  
14 financial skills begin and end -- but I think the question I  
15 had really was, I mean, is there a way to use the 118 funds  
16 in a way to kind of leverage that into, I do not know if it  
17 is through the State Treasury or through some other  
18 mechanisms, but is there an ability to -- it does seem like  
19 dollar for dollar, you might be able to put -- leverage more  
20 new investments, you could turn that into a loan, you know,  
21 a 10:1 kind of a ratio, grant vs. guaranteed loan. Now, I  
22 do not know the answer to the question in terms of a  
23 project-by-project basis, is it better to provide it as  
24 grants, or better to provide it as loans, but you know, it  
25 does seem to me that, given a lot of what we have seen at

1 the federal level, a lot of these monies have been handed  
2 out as loans, and it does seem to be -- with the battery  
3 manufacturers to the Teslas and Fiskars of the world, so it  
4 does seem to be kind of an effective mechanism to leverage  
5 small amounts of public dollars. I guess that is the  
6 question.

7 MR. MIZUTANI: In terms of Treasurer's Office, we  
8 are not talking about any kind of grants or anything like  
9 that, it really is the sort of seed fund to allow loans to  
10 be secured by the entity. The grants, when I talk about  
11 grants, it is all outside of the Treasurer's Office, that  
12 would be here at the Commission. And those would be used to  
13 fund feasibility studies and maybe demonstration projects.  
14 But when you talk about revenue generating, it is loans, but  
15 it is how best to structure those loan mechanisms to get  
16 loans in the hands of the revenue generating developer.

17 MR. HWANG: Okay, thank you.

18 MR. WARD: We really did not anticipate accruing a  
19 loan loss reserve and guaranteeing loans, and so the  
20 commercial -- basically that is what is stifled in the  
21 commercial sphere for banking. We can provide a loan loss  
22 reserve and therefore a loan guarantee that gives people  
23 better surety to go ahead and make those loans, basically.

24 MR. HWANG: Okay, got it, got it. That is  
25 helpful.

1 MR. SIMPSON: Peter, this is Will. Is that the  
2 structure you are currently using? Or no? You are just  
3 making direct loans, or you are doing a loan guarantee?

4 MR. WARD: Well, we are going to use different  
5 mechanisms, but the loan guarantee is one that is  
6 particularly attractive to us at this point, because we can  
7 leverage our money there.

8 MR. SIMPSON: And so do you have to do the  
9 credit/loss rating for all of these companies, as well?

10 MR. WARD: No. That is going to be done by the  
11 State Treasurer's Office through their commercial bank  
12 network that they have.

13 MR. SIMPSON: Thanks.

14 COMMISSIONER BOYD: Okay, let's go to the  
15 spreadsheet. Has everybody had a chance to take a look at  
16 it? Mike, did you intend any brief presentation or just  
17 respond to questions?

18 MR. MIZUTANI: So what we have done is we have  
19 broken out the funding by the subcategories within each of  
20 the fuel categories, and so the Investment Plan allocations  
21 are the allocations from the last Investment Plan. And  
22 then, moving to the right, the first encumbrance was through  
23 interagency contracts and you will see in that column the  
24 \$600,000 with DGS, and that has been encumbered and  
25 invoiced. Then, in terms of the workforce development, we

1 have encumbered \$9 million in two interagencies, one with  
2 EDD for \$4.5 million, and the other one is with the  
3 Community Colleges for \$4.5 million, and we are in the  
4 process of developing an interagency agreement with ETP for  
5 \$6 million. Four million dollars under Standards and  
6 Certification is the interagency that we are developing with  
7 the Department of Food and Agriculture, their Division of  
8 Measurements and Standards to look at Hydrogen  
9 standardization at fueling stations. And then the \$1  
10 million has been encumbered and that was through a  
11 competitive process and it is to provide technical  
12 assistance to the Energy Commission staff. The next column  
13 is the awards that we secured through the ARRA  
14 solicitations. You have \$9 million -- and all of the ARRA  
15 projects are awards and we are in the process of negotiating  
16 grant agreements with the awardees right now, so there has  
17 been no funds that have been encumbered at this moment. But  
18 if you look under the electric drive medium and heavy duty  
19 demos, there is \$9 million that have been identified under  
20 ARRA, which basically leaves a million dollars which is part  
21 of the medium- and heavy-duty demo solicitation. You have  
22 \$8.8 million under charging stations, which leaves \$3.2  
23 million of which we have put in the fueling infrastructure  
24 that is looking at natural gas, E-85, and electric charge.  
25 This is a solicitation where we received proposals and we



1 are in the process of reviewing. Then you have a million  
2 dollars under Manufacturing, that one, I believe, is from  
3 ARPA-E and I think that is a company called Envia, so we at  
4 this point are in negotiations with Envia in terms of trying  
5 to enter into a grant agreement with them. And that leaves  
6 \$8 million in that category. And we are in the process --  
7 and so what you will see is, on the right it shows the  
8 funding mechanism that we are developing, that we have not  
9 released yet, but that \$8 million under Manufacturing would  
10 be going into the vehicle and Vehicle Code Manufacturing  
11 Incentives solicitation, hopefully it could be out soon.  
12 And E-85, that \$5 million, \$4 million of that was through  
13 the ARRA project, and I believe that is for E-85 stations in  
14 Southern California, which leaves a million dollars, which  
15 we will be -- we have put into the fueling infrastructure  
16 solicitation where we are doing proposals now. On Ethanol  
17 Feasibility Studies, there is \$3 million, that \$3 million  
18 will go into one of the three solicitations that we are  
19 working with at the Treasurer's Office. And what Mike  
20 wanted me to do is specifically that is going to the  
21 existing Ethanol production incentive -- for production  
22 incentives. Then, on the New Waste Feedstock Plants, those  
23 will also be going into that category. On the biodiesel and  
24 renewable, the Waste Feedstock Plants, we are in the process  
25 of releasing a solicitation and the \$2 million would be in

1 that solicitation. With Blending and Storage Terminals,  
2 that is part of the Fueling Infrastructure solicitation  
3 currently that we are reviewing proposals on. For Natural  
4 Gas Light-Duty Vehicles, we are moving those funds into our  
5 new Biofuel Production Plant solicitation that hopefully we  
6 will be releasing soon. The \$23 million for medium- and  
7 heavy-duty, \$11.5 million has been ARRA awarded, leaving  
8 \$11.5 million, which we are putting into the biomethane  
9 production solicitation. And, again, we have received  
10 proposals and we are in the review process for those. In  
11 the Fueling Stations, there were \$2.4 million under ARRA,  
12 and the remaining \$5.6 million is in the Fueling  
13 Infrastructure solicitation where we are reviewing  
14 proposals, currently. And then, for Biomethane, we have had  
15 the \$10 million plus the \$11.5 from the medium- and heavy-  
16 duty vehicle and natural gas for combined \$21.5 million in  
17 that solicitation. And we are, again, reviewing proposals  
18 at this time. For the Propane area, there is \$2 million and  
19 that is going into a solicitation that we are developing for  
20 the propane school busses. For Hydrogen, the \$40 million,  
21 \$22 million is going to the Hydrogen fueling stations and  
22 the remainder is being right now split up in the New Biofuel  
23 Production Plants solicitation, as well as the vehicle  
24 manufacturing solicitation. And those are being worked on  
25 and hopefully will be out soon. Workforce Development, \$15

1 million, it has been identified and we are continuing to try  
2 to encumber those funds for workforce development and  
3 related activities. Standards for Certification, the \$4  
4 million, it is with the DMS. In terms of Public Outreach  
5 and Education, about \$550,000 was awarded through ARRA,  
6 leaving \$450,000. And those will be put into the New  
7 Biofuel Production Plants, as well, new production plants.  
8 Sustainability, we got \$4 million and those will be spread  
9 between the New Sustainability Studies, as well as the New  
10 Biofuel Production Plants. The Environmental Market  
11 Technology Analysis, that \$2 million we are looking at  
12 trying to enter into agreements with the National Renewable  
13 Energy Lab, as well as the UC Irvine to develop their street  
14 model. And finally, the Technical Assistance, like I said,  
15 we have encumbered that money and it is being used to  
16 provide us with support.

17 COMMISSIONER BOYD: Any questions? Still  
18 digesting.

19 MS. HOLMES-GEN: Assuming there will be no  
20 problems, but if for some reasons these funds are not fully  
21 expended, they will roll-over into the next Plan?

22 COMMISSIONER BOYD: There is no roll-over  
23 provision. If we do not get them out in a two-year time  
24 period, we lose them. So we *will* get them out.

25 MR. SIMPSON: Would you consider, if you do not

1 award all the monies in a given category or solicitation,  
2 putting out another solicitation?

3 COMMISSIONER BOYD: Yes. Believe me, if for some  
4 reason it will not work in some area, it will get moved to  
5 an area that it will work and we will get them out the door.

6 MR. SIMPSON: I only ask that because I know some  
7 folks on the biomass-based diesel fueling infrastructure  
8 stuff and hoped to have the solicitation extended by a month  
9 or two, and I do not think that happened at the end. You  
10 extended it, I think, by two weeks. So I know there are  
11 some stakeholders who have proposals that they would like to  
12 get in, but could not make the cut-off given the short  
13 notification period.

14 COMMISSIONER BOYD: Not much I can say there.  
15 Pete and then Tom.

16 MR. PRICE: Clarification. So these three  
17 columns, Fueling Infrastructure, Biomethane, and Production  
18 Plants, did you say for those three columns you have  
19 proposals in and they are under review?

20 MR. MIZUTANI: Yeah. These three solicitations  
21 were posted with the due date for proposals on January 25<sup>th</sup>.

22 MR. PRICE: Right, okay.

23 MR. MIZUTANI: So we have received those.

24 MR. EMMETT: It seems like there was \$2 million  
25 unaccounted for that maybe I am not finding from the light-

1 duty natural gas vehicles, you said that was going into the  
2 new biofuel production plant solicitation?

3 MR. MIZUTANI: Yes.

4 MR. EMMETT: So wouldn't that be \$23.5 million? Or  
5 am I not --

6 MR. MIZUTANI: That is a different solicitation.  
7 That is a solicitation that has not gone out yet.

8 MR. EMMETT: Okay, thanks.

9 COMMISSIONER BOYD: Is that solicitation more  
10 biomethane oriented?

11 MR. MIZUTANI: No, it is more -- it is biofuel.

12 MR. HWANG: So can you clarify, it looks like  
13 there is a lot of funds that are going to be put into this  
14 new solicitation for biofuel production plants. Can you  
15 give us a rough estimate, is there a way to estimate how big  
16 that solicitation is going to be? And how much bigger than  
17 what was in the plan. Yeah, I guess in general I am just  
18 having a little hard time following the initial plan  
19 allocations between all these different categories, and  
20 where we are going to end up at the end of the day if we put  
21 all these new solicitations back into the categories,  
22 because it looks like money is being switched around between  
23 categories. Am I following this right?

24 MR. MIZUTANI: There has been some switching, but  
25 the example is like the natural gas light-duty vehicles, we

1 moved that into another category.

2 MR. HWANG: So if you had another spreadsheet and  
3 you looked at what you project the total funding, say, for  
4 electric drive category will be at the end of this next  
5 round of solicitations and likewise for Ethanol, biodiesel  
6 and renewable diesel, natural gas, etc. etc., is that a  
7 spreadsheet you can create? I guess right now the question  
8 is, with three solicitations on the street, where are we in  
9 terms of comparing to the initial Investment Plan  
10 allocations, and then where do we think we will be when we  
11 finish with all the other solicitations. Does that make  
12 sense?

13 MR. MIZUTANI: Yeah. I think if you look at the  
14 right column where the balance is going, the descriptor  
15 should indicate -- would indicate if it is in -- what  
16 category it would be in. So, as an example, for electric  
17 drive, all the remaining funds are going to be put into  
18 electric drive related activities.

19 MR. HWANG: Okay.

20 MR. MIZUTANI: If you go to Ethanol, any remaining  
21 funds would be going into an Ethanol-related area, and then  
22 the same thing with the biodiesel, renewable diesel. When  
23 you get up to natural gas, that one is more for biofuels,  
24 rather than for natural gas. And then, when you go into  
25 Hydrogen, primarily it is going to be Hydrogen, but also it

1 is -- some of those funds will be going into non-Hydrogen  
2 such as biofuel and the vehicle and vehicle component  
3 manufacturing incentives. These two do not necessarily  
4 restrict proposals -- Hydrogen-type proposals -- but the  
5 focus is definitely in other areas, either biofuels or in  
6 terms of -- or electric drive, or hybrid type of vehicles.  
7 And then, under Market Development, again, I think the only  
8 difference is on sustainability, part of that money is going  
9 into sort of a non-specific direct sustainability study. In  
10 this case it is the new biofuel production plants.

11 MS. HOLMES-GEN: Can I just jump in? I really  
12 appreciate the information, but I just have to support what  
13 Roland is saying. I do not know how we can really provide  
14 informed commentary and guidance to you without having the  
15 kind of chart that Roland is suggesting because some of this  
16 money, I mean, how much of the \$40 million from Hydrogen  
17 will be going into new biofuel production? How much of the  
18 natural gas money will be going into that? I feel like we  
19 really need to have some general idea where we are going to  
20 come out in terms of what these categories are going to look  
21 like after the switching around of some of the funding to  
22 understand the constraints that you are up against and the  
23 realities and how things really are shaking out --

24 MR. CACKETTE: If I could add -- exactly my  
25 interest, too, because what it seems like is possibly a

1 large amount, more than \$10 million is going to go into  
2 Ethanol production facilities, and the question is how much  
3 more than the \$10 million we talked about before. And to  
4 the extent it is more, it raises this issue about sort of  
5 existing low reduction carbon approaches vs. the more  
6 advanced high reduction carbon approaches, and what is the  
7 money split, especially if now we have got \$20 million, for  
8 example, or even more potentially than we have earlier  
9 discussed, which was only \$10 million. So I think it really  
10 makes that issue a much more pointed one that might benefit  
11 from the various committees' numbers input.

12 MR. SHEARS: Right, and so to what extent could  
13 you elaborate on what existing Ethanol production incentives  
14 really means in relation to, you know, the program trying to  
15 facilitate either more efficient production of existing  
16 facilities vs. new production processes that achieve the  
17 greenhouse gas goals.

18 MR. MIZUTANI: I think one of the difficulties is  
19 the funding is still in a state of flux and, as an example,  
20 you know, when negotiating with ARRA awardees, there is not  
21 necessarily a guarantee that we will enter into an agreement  
22 with them for that exact amount of money. And so this is --  
23 we are sort of in the process and we need to get guidance  
24 from our Commissioners in identifying what the best use of  
25 those funds are, if in fact we will not be able to use them



1 for their intended purposes. And so we are in a phase where  
2 it is an evolutionary type of phase, where we cannot really  
3 say that these monies are set, except for the few cases  
4 where I identified in terms of the interagency agreements.

5 MR. HWANG: At what point do you think things will  
6 be clarified enough with the ARRA awards and other  
7 solicitations where you might be able to provide a clearer  
8 idea of where we are at in respect to the initial Investment  
9 Plan?

10 MR. MIZUTANI: Well, for the ARRA awards, I would  
11 say -- I would hope -- and I am turning out to be  
12 optimistic, as always -- is in the next one to two months.  
13 But, again, it is dependent upon the progress that the  
14 applicants have with the agencies, DOE, in particular. And  
15 then, in terms of the three solicitations that we are  
16 reviewing proposals on, you are talking about probably about  
17 a month and a half to two and a half month period to get to  
18 a point where we will have evaluated and scored them. So  
19 there is certainty, but, again, it is still a couple -- few  
20 months out.

21 MR. EMMETT: This is Daniel. But you know  
22 already, for example, that you are moving \$18 million from  
23 Hydrogen to Vehicle and Vehicle Manufacturing Incentives and  
24 part of it to New Biofuel Production Plants. Is it going  
25 even \$9 to \$9 -- \$9 million? Or have you determined that

1 yet? That is -- I think and you have already decided that  
2 only \$22 is going to Hydrogen of that \$40, so presumably --  
3 have you thought about how that is being --

4 MR. MIZUTANI: I think right now what we are  
5 working on is basically a split, half and half.

6 MR. EMMETT: A split, okay. So that is part of  
7 the -- that is almost all the way there, otherwise then you  
8 have only got very little left after that.

9 COMMISSIONER BOYD: And one thing I want to say  
10 here is the point that Chuck made about ARRA settling down,  
11 and we have had a tough time with this because every couple  
12 of weeks when the Committee sits down with the staff, there  
13 has been some change in what ARRA is going to do. And there  
14 has been, no, they are not going to make the algae  
15 solicitation that they thought they were going to make, we  
16 had set money aside for; or, yes, they are still considering  
17 such and such, and I think there are still a few balls in  
18 the air with regard to where money -- where there might be  
19 money and where, therefore, it could go to meet kind of  
20 current needs, so there is kind of a plus or minus some  
21 small percentage, this is roughly where it seems to be  
22 going. And I mean, I do not know if I can help a lot more  
23 other than saying, you know, we respond to interest, we are  
24 trying to do everything by solicitation as best as possible,  
25 while still trying to figure out where ARRA is going with

1 their dollars, ever cognizant of the fact that we do want to  
2 spend the money and not for all these good purposes, not  
3 have any more targets for sweeping by the Legislature. In  
4 fact, I -- Commissioner Eggert and I were talking about this  
5 column that says "Balance of Funds" -- I do not want to see  
6 that leave this room, quite frankly, that is not what it is,  
7 as you all heard, those monies are spoken for, and if I were  
8 a legislator or Department of Finance Analyst, I would say,  
9 "Ah, there is \$73.5 million that we can take now," etc. etc.  
10 So, in any event, that is part of the complication, it just  
11 is not a black and white, perfect world for us ever since  
12 ARRA was dropped in on this thing, and otherwise we could  
13 have, you know, would have, had no reason short of some  
14 technological developments or inability of people to  
15 respond, kept 100 percent faith with the original Investment  
16 Plan allocations, there might have been a few changes where  
17 we were under-subscribed and there just was not anything  
18 there, but anyway, that is an effort to try and help explain  
19 why this is so hard to explain, and I am not sure I helped  
20 much, either.

21 MR. HWANG: Commissioner Boyd, I think that is  
22 very helpful and we fully understand that a lot of things  
23 are in flux. And from my personal perspective of the  
24 Investment Plan, what was projected two years ago, and where  
25 we are right now, it is not a surprise where things might

1 have changed in the last two years; a lot of the work has  
2 changed. And we do want to provide -- I believe we should  
3 allow the Energy Commission the flexibility to respond to  
4 events as they change. I think probably, basically, what I  
5 am trying to figure out is just what has changed, and then  
6 to try to understand why it has changed. So I think further  
7 iterations, especially as the ARRA situation clears up and  
8 some of these solicitations clear up, I think it would be  
9 terrific just for people to know where are we exactly in  
10 terms of Investment Plan vs. initially where we are now and  
11 where we think we might be and, if we are deviating,  
12 explanations for why. And I think everybody understands  
13 that is due to change and everybody understands the world  
14 really is different than it was two years ago. Just a quick  
15 question for Chuck. The sustainability study, \$4 million,  
16 is that money going to be split up between sustainability  
17 studies and the biofuel production plants, are we still  
18 doing sustainability studies or, for some reason, have we --

19 MR. MIZUTANI: Of the initial \$4 million, \$2  
20 million is being targeted for looking at the forest biomass  
21 area.

22 MR. HWANG: Why has that been reduced from \$4?

23 MR. MIZUTANI: I think it is resource limitations.

24 COMMISSIONER BOYD: I do not think the money has  
25 been reduced, I think that particular activity only needs \$2

1 million, so I think staff is looking at what other  
2 sustainability things might we be able to do with the  
3 remaining balance. But one of the things that came along  
4 was all this activity on forest biomass and the interagency  
5 forestry working group, and its needs, and the needs to get  
6 more cohesiveness between state and federal agencies and  
7 states within the West led to a need for about \$2 million  
8 worth of studies. We did not want to spend \$4 if we did not  
9 need to spend \$4, so -- but that is just one, as was  
10 discussed earlier today, that is just one piece of  
11 sustainability and we hear everybody's concern of why are  
12 you are looking at forest and not other areas, well, it is  
13 just because that is the way all the chips fell, pardon the  
14 pun, and that got a priority because that is where so many  
15 are directing attention, and we have got to keep up with it  
16 or we will not be able to influence it in a way that is  
17 positive to the goals and objectives of California. But the  
18 staff is still looking at how to use the rest of it, that  
19 what are the then remaining priorities in the sustainability  
20 area, and another thing is, you know, just how much can Jim  
21 McKinney do all by himself. Tom, is that a question with  
22 your name up? Or is that leftover? Or do you want your  
23 five minutes?

24 MR. CACKETTE: I was praying for my five minutes,  
25 but I have got to go.

1           COMMISSIONER BOYD: Tom has to go, can we yield to  
2 him his five minutes? Because I know you are furloughed and  
3 cut and everything else, just like we are.

4           MR. CACKETTE: Thank you. I apologize for butting  
5 in on everybody else's quarter here. Just in general, I  
6 wanted to mention that the uncertainty and the transitory  
7 nature of the status of the ARRA funding process is -- we  
8 share the same thing, we have competed for ARRA funds and we  
9 got criticized in our first award because we implemented it  
10 too fast and actually spent the money and got the job done,  
11 and then the second one was like normal, and the third one,  
12 we are still negotiating over their terms which basically do  
13 not work for us, so it is money that we might just have to  
14 say goes back. So it has been a challenging process, and so  
15 I share the pain. Ours has been not quite the size of  
16 yours, but still it is \$15 or \$20 million, do it has been an  
17 interesting process.

18           On the report, there were a couple of things I  
19 would like to suggest that might be improvements before the  
20 next draft, or before the draft that is turned over to the  
21 Commission. One is last year we had a very lengthy  
22 discussion about the priority of Hydrogen and the concern  
23 raised by the Commission was that we do not want to invest  
24 in infrastructure if there are not going to be any vehicles,  
25 and how do we match the two up. And over the last year,

1 between the first Plan committee meetings and the Advisory  
2 Committee today, the bar got raised a whole bunch, and we  
3 mutually went out and got information on the number of  
4 vehicles, what year they were going to come in, so forth and  
5 so on, and came up with a plan using the California Fuel  
6 Cell Partnership of where the infrastructure should be,  
7 where the vehicles are going to go, and nicely matched stuff  
8 up and I think that was the challenge that you raised, and  
9 it was done. And I think that has greatly improved the  
10 plan. The problem I see is that none of the other  
11 categories seem to have the same level of rigor. There does  
12 not seem to be a real projection of what electric vehicles,  
13 plug-in vs. batteries we expect in the marketplace in the  
14 next five or six years, and what kind of infrastructure is  
15 needed. Does it need to be spread statewide, is it going to  
16 be regionally located, and then, within that piece, what are  
17 we going to do for the types of electric charging  
18 infrastructure that are needed? I look at your  
19 solicitation, the thirteen point some million dollar  
20 infrastructure on the one that went out, and it basically  
21 says we have got thirteen point some million dollars and we  
22 would like to spend some of it on electric charging, and it  
23 could be renovating old stuff, or putting in new stuff.  
24 That is all it says. And so, you know, you are likely to  
25 get -- when you get bids that are 10 times as many requests

1 for money than you have got money, part of it is because  
2 there is not the lack of specificity there. And I think  
3 there is a real underlying policy issue on electric charging  
4 of what kind of charging should we be funding. We need some  
5 kind of an assessment that says, for the kinds of vehicles  
6 that are coming, do we need help at the home? Or is \$2,000  
7 to \$3,000 just something that a person who is going to buy a  
8 BEV will fund? Do we need it at the workplace? And how do  
9 we get it at the workplace? Do we need it at Nordstrom's at  
10 the Mall? There is stuff out there now. I question what  
11 the value of that is. And do we need fast charging? So  
12 there are like four levels of charging and it seems like the  
13 Investment Plan ought to try to shed some light on the  
14 priority of where the need is in the short term because it  
15 is going to happen in the next couple of years for the  
16 charging infrastructure. And I think that would come out of  
17 it if we have the same kind of analysis that we have now got  
18 for Hydrogen, of matching infrastructure to number of  
19 projected vehicle sales, and so that for electric. I think  
20 you probably need to do that for heavy duty natural gas  
21 trucks, for example, and just said, well, let's spend some  
22 more money on natural gas infrastructure so we can have a  
23 bigger network, but do we know if the trucks are going to  
24 use it? And is it going to be publicly placed? Or is it  
25 fleet-oriented? And it seems like the approach is, well,



1 let's just see what the bids are and then we will make that  
2 decision. Well, that does not seem like that puts much value  
3 -- that approach puts much value on the Investment Plan,  
4 that those are the kinds of things that maybe ought to be at  
5 least discussed up front.

6           On Hydrogen, it looks to us, and I do not know  
7 this for sure, but it looks to us -- we gave you a suggested  
8 amount of Hydrogen funding based on the latest joint CEC ARV  
9 -- this is for infrastructure -- surveys. And the numbers  
10 are higher than what is in the Plan. And so there are two  
11 comments, one is it is not clear from the existing monies  
12 that have not been spent from the first go-round, whether  
13 the \$22 million includes the money for transit bus  
14 infrastructure, or not. If it does not, and that is going  
15 to come from another pot, and we highly support that  
16 infrastructure for buses, then essentially you are cutting  
17 \$5 or \$6 million out of what we think the demand is for  
18 Hydrogen fuel from the first go-round. And then the second  
19 go-round is another \$6 million short of what we thought the  
20 minimum amount needed to provide for the vehicles that are  
21 coming, that car manufacturers said will be in place. We  
22 think we are short in both years by roughly that amount.  
23 The reason appears to be, looking in Appendix C, is that  
24 when we provided what we thought was the amount of fuel  
25 supply needed to match demand, there was a cushion; there

1 was extra unused capacity on average for stations. And it  
2 looks to us that what your staff did was just cut out all  
3 that unused capacity, and then reduced the amount of money  
4 and said we can fund these stations if we just do not have  
5 any extra capacity. But in real life, you have only got a  
6 dozen or less stations, and you cannot assume that everyone  
7 is going to operate at 100 percent efficiency. And so that  
8 formula that I think you have used -- I may be wrong -- that  
9 I think you have used -- results in people will not be able  
10 to get fuel because they are not going to equally go to the  
11 number of stations that are out there, so one station will  
12 run out, another station will have some excess capacity, but  
13 it will not provide the kind of surety that we need when  
14 there are very few stations to provide fuel for these cars.  
15 So we would like to suggest a re-look at that, the  
16 difference between what we suggested and what is in the plan  
17 on Hydrogen infrastructure.

18           And one comment more on the Ethanol production. I  
19 am wondering whether ARB provided you, or could provide you,  
20 with more insight as to what the Low Carbon Fuel Standard  
21 will do in terms of stimulating existing and future Ethanol  
22 production because, if Ethanol is the fuel of choice to meet  
23 the Low Carbon Fuel Standard, which someone suggested, then  
24 it seems like these closed down plants within the next few  
25 years are all of a sudden going to have a demand put on them

1 by the oil companies for this fuel, and they may open up by  
2 themselves. The price may go up to make it attractive to  
3 reopen the plants. And if that is the case, then do we need  
4 to be spending money -- team money on that. So that whole  
5 issue of how Low Carbon Fuel Standard might interact here  
6 seems like something that would be worth looking into.

7           And then one very final point is, I would really  
8 like to see the table like we got here as to where we are  
9 with respect to funding cycle 1. I would like to see that  
10 one and funding cycle 2. The funds cut into the various  
11 categories, like in particular, investment in short-term,  
12 and fuels vs. -- and technologies vs. the high risk long-  
13 term ones, and you will see a number -- are we spending 20  
14 percent of our money in the long-term high risk? Are we  
15 spending 80 percent of it in the long-term high risk? I  
16 think it would be a useful statistic to have for the  
17 infrastructure plan, and it will help us go from plan to  
18 plan to see if, in fact, there are changes occurring and  
19 what are the policy reasons for those changes. So those are  
20 my comments and I appreciate you taking me out of order  
21 again. Thank you.

22           COMMISSIONER BOYD: Okay, Tom, a couple of  
23 comments from me. One, we have spent so much time on  
24 Hydrogen, it probably takes away from our ability to address  
25 these other categories that you feel need to be addressed in

1 more detail. We would love to address them in more detail  
2 and I guess we will do everything in our power to do that.  
3 And with regard to the Low Carbon Fuel Standard, we would  
4 love to have you share more with us on what is going on  
5 there so we can incorporate it into this, but quite frankly,  
6 we have had a hell of a time penetrating Air Resources Board  
7 to share with us anything on the Low Carbon Fuel Standard.  
8 So I will take this as an invitation today to participate  
9 more, and I have taken that point all the way to the  
10 Chairwoman and have not seen a lot of success. So we should  
11 be working more closely together, I have always said that --

12 MR. CACKETTE: Well, I think on that one, yes, the  
13 problem is I do not think we know exactly what is going to  
14 happen on Low Carbon Fuel, but I was just raising the issue  
15 that, if all of a sudden there is a big demand for Ethanol  
16 to comply with low carbon fuel, it implies that production  
17 facilities in California might re-start up and we ought to  
18 just have some sense of that before we put lots of 118 money  
19 into helping them start up. We may not need it. You know,  
20 the price of Ethanol to the oil company that is going to  
21 blend it might be good enough to cause that to happen  
22 anyway.

23 COMMISSIONER BOYD: That is a hypothesis that  
24 might indeed be true by the time we get all this figured  
25 out, it may be irrelevant. But at the time we started it,

1 it was relevant.

2 MR. CACKETTE: Oh, yeah. No, I agree. And it was  
3 emphasized by the fact that it looks like a lot more is  
4 going into biofuel production, and I would just restate the  
5 other concern that I think we need to have -- if even more  
6 than \$10 million is going to go in, we need to have some  
7 guidance in the Investment Plan about the amount that might  
8 go to future stuff that is really clean, the cellulosic, the  
9 very low carbon stuff vs. the current stuff, which is,  
10 according to the Table in the back, California is -- we are  
11 the 16 percent reduction, whereas the cellulosic stuff was  
12 70 or 80 percent reduction, so how we balance the money  
13 short to long-term, there is an example of that which I  
14 think would be helpful.

15 COMMISSIONER EGGERT: Just given my former  
16 employer, I will also take your comment or suggestion to  
17 work more closely with our sister agency to heart. I would  
18 also suggest, I also recognize your comment with respect to  
19 the sort of in-depth investigation of matching fuel with  
20 vehicles in the Hydrogen area, and I would invite, again,  
21 input from others as to how we might do that for the other  
22 fuels. Would it be, for example, in the case of Hydrogen,  
23 there was a survey -- a confidential survey -- that was  
24 issued to the Vehicle Manufacturers to get information on  
25 their deployment plans. Is that something we might do for

1 other vehicle technologies, for example, natural gas and  
2 such, or are there other mechanisms that might be employed  
3 to get that information?

4 COMMISSIONER BOYD: I am not sure if we finished  
5 the discussion of the Table, or we beat that to death in  
6 terms of we know all the questions you have, given more time  
7 and more information will be provided before this group  
8 meets again. I am a little concerned about getting enough  
9 time to, a) get your comments, and b) getting to the public  
10 discussion. So if yes, John --

11 MR. SHEARS: This is just going to be my last  
12 comment before we go to public comments --

13 COMMISSIONER BOYD: Oh, is this your five minutes?

14 MR. SHEARS: Yeah. So I just want to thank the  
15 staff, I mean, it is a huge amount of work, very complex  
16 issue, I mean, this regulation throws everything at the  
17 issue of vehicle technology and fuels, save possibly the  
18 kitchen sink, and I just want to also thank staff for their  
19 patience in helping us to explore the complex interactions  
20 of trying to keep this program moving forward and figure out  
21 how, as Anthony mentioned earlier, I mean, how we can all  
22 work together to continue to improve this program. So I  
23 just want to thank the staff for all of their hard work.

24 COMMISSIONER BOYD: Let's just keep going around  
25 the table. Unless somebody has a time constraint and they

1 have to leave.

2 MR. KAZARIAN: I am going to have to step out, but  
3 if we are going this way...

4 COMMISSIONER BOYD: Thank you.

5 MR. EMMETT: Well, I sort of took my five minutes  
6 way back when because I thought that was what we were going  
7 into the discussion, but I just want to make one additional  
8 point and that is that I think, in the electric drive  
9 category, I understand the \$3 million for infrastructure for  
10 this coming year is on top of the \$3.2 this year, I think  
11 that is a good chunk of the way there, but it is definitely  
12 not enough for everything that we have talked about in terms  
13 of the public and home charging, and so I assume that  
14 implicit is there is yet another year of funding on the back  
15 of that. Just some of the language in the plan made it  
16 sound like sort of that was going to get us to where we  
17 needed to be for this 2012 timeframe, and I am not sure that  
18 we totally agree with that. And then, I also want to echo  
19 Tom Cackette's comments regarding Hydrogen and sort of the  
20 thought going into those numbers, the revised numbers.  
21 Thanks.

22 MR. KAZARIAN: So quickly, I would also like to  
23 thank the staff for their hard work, and just four quick  
24 comments, and I may have missed this, or the staff is  
25 already aware, but the possibility of leveraging the federal

1 dollars with the DOE energy innovation hubs. They just have  
2 one of the hubs coming out, it is fuels through sunlight,  
3 there are \$122 million available -- I am not sure if there  
4 is a potential opportunity to partner aboard -- apply for  
5 that grant. That was one. Two is, to reiterate my  
6 objection to pulling workforce dollars now, as I think that  
7 that is an effective route; three, I am very supportive of  
8 the grants and loans through the Treasurer's Office  
9 proposed. I know from meetings that I have been in with  
10 businesses that that would be a great tool for us in terms  
11 of business attraction, so I think we can definitely put  
12 that to use. And the last point is, this may be down the  
13 road, but I am not sure how many people are aware, but we  
14 have SBX24 legislation for public/private partnerships, and  
15 BTH is the lead organization on this, and we have announced  
16 our Public Infrastructure Advisory Committee members, so we  
17 are moving forward on projects and, you know, I could maybe  
18 see some type of collaboration down the road with infusing  
19 AB 118 dollars to green transportation or the Hydrogen  
20 highway, something in that area of public/private  
21 partnerships. I am not sure if additional legislation is  
22 needed, but just a thought. And that is it.

23           COMMISSIONER BOYD: Thank you. Jan?

24           MS. SHARPLESS: Well, I do not think that I need  
25 to repeat what other people have said that I agree with, so



1 I will just say that I agree with comments that have already  
2 been made, the five-minute comments that have been made  
3 around the table. I am still sort of pondering the  
4 discussion that was made over, you know, the type of  
5 analysis that goes into the portfolio investments, and the  
6 whole thing about, you know, looking at the biggest bang for  
7 the buck on GHG emissions and other types, and reducing  
8 petroleum, and so forth. And it seems very, in a way, you  
9 cannot argue with that, but in a way it does not exactly fit  
10 with the real world all the time, and that is that, you  
11 know, you may have a wonderful game plan, but if you cannot  
12 get the investment, and if you do not have the consumers  
13 going along with it, we know it does not work. And so you  
14 have to, I think, go back and overlay with that type of  
15 analysis what government role is. And as you said, our part  
16 of the game is a very small part of the game, but basically  
17 if you took all of the stuff that is in this Investment  
18 Plan, this too is sort of government roles, one is priming  
19 the pump, and that is the rebate program, those are the  
20 grant programs, so those are the ones that the technology is  
21 coming along, it is very close to commercialization awards  
22 and commercialization, and what you are attempting to do is  
23 increase volume and reduce price. And then you get out of  
24 the game because you do not keep subsidizing something that  
25 looks like it is going to take off. The other part is sort

1 of the infrastructure game, which is where you are trying to  
2 bring in investment, private investment. And that is a  
3 different type of game and you cannot really analyze the two  
4 along the same trajectory. So however you do this analysis  
5 of your Investment Plan, whether you look at the global  
6 greenhouse emission reductions, or petroleum reductions,  
7 that is good. But I think you need this other component to  
8 go along with it, so it is almost like maybe you need to do  
9 -- and I guess this gets to Tom's, as well -- where you do  
10 what they did in the Hydrogen area for each category.

11           The only other thing I would say is, well, you  
12 have already heard sort of my questions around the loan vs.  
13 grant, and I think that maybe you might want to look again  
14 at how you are looking at the financial instruments that you  
15 use in each of your programs. Maybe in some areas where you  
16 are using grants, you really could be using loans, and so I  
17 do not have anything specific to point to, but it seems to  
18 me that maybe you need to look at that.

19           And the other thing that we really did not talk  
20 about very much today, but I still think is really  
21 important, is the public education, marketing and outreach  
22 component and we did not really say much about that. And it  
23 is sort of like stay tuned, you are working on it. But I  
24 would just raise the flag that I think that is really still  
25 an important part of the Investment Plan and should not just

1 be left in the background for another day. Thanks.

2 COMMISSIONER BOYD: Thanks, Jan. Just a quick  
3 comment on the loans vs. grants. I think we agree with that  
4 position 100 percent, I know we have talked about it a lot  
5 as we look at the mechanisms we might use in each of the  
6 categories. Probably not clearly stated today, if stated at  
7 all, was the fact that it has been very difficult to find  
8 mechanisms for a government agency like ours to do loans, or  
9 to facilitate loans, and that staff -- I am looking around  
10 the room at several people who have put a huge effort into  
11 working with the Treasurer's Office who has this capability,  
12 and yet it has been a very very difficult road to hoe, to  
13 get that going and up to speed, and only at a certain level  
14 that they are capable of handling. So hopefully when we get  
15 this going and everybody gets a good taste for what it is  
16 like, we can use those mechanisms, or try to find some  
17 others, that will facilitate loans and loan guarantees,  
18 because I would agree, that is better than just giving money  
19 away in grants for a multitude of different kinds of  
20 applications. But, not to be making excuses, just to  
21 explain the realities of government, it is really hard, we  
22 discovered, painfully, to launch loan-type programs. And,  
23 in fact, there are some real prohibitions against this  
24 agency doing that in certain kinds of ways, and yet, as you  
25 know from having been here, we make loans, lots of them, in

1 ECAA Program, but we are not able to mirror that same  
2 approach. And, I do not know, this may be an area where we  
3 need to discuss more about whether we need legislation.  
4 But, you know, you are afraid to put the patient back in the  
5 emergency room sometimes for fear that fixing the appendix,  
6 the heart goes. In any event, those are the kinds of  
7 discussions we have internally. Thanks. Peter.

8 MR. COOPER: Yeah, I will be very brief, but in  
9 fact the Labor Federation is working with the manufacturers  
10 on possible legislation to look at trying to create some  
11 type of revolving loan fund, which would include some of the  
12 ideas around manufacturing and renewable fuel technologies,  
13 so we will see how that plays out, but I am happy to hear  
14 the support for the idea of putting more money towards  
15 loans, which I think has a longer impact beyond the seven-  
16 year window of this program. So I look forward to further  
17 discussions in that area.

18 And just to echo what I said before, I would like  
19 to see more money continue to go towards workforce, perhaps  
20 pared down from the past, but I think that category needs to  
21 remain alive and build upon what we have already achieved.

22 MS. HOLMES-GEN: Thanks. Some brief comments. I  
23 continue to believe in the importance and the value of this  
24 program, and I appreciate the hard work that has gone into  
25 it in trying to get that money out, and I know you will get

1 that money out this year, and that this is a critical  
2 program to reach our -- to help with the process of reaching  
3 our 2020 and 2050 goals. And I know that you are committed  
4 to maintaining -- to not having any roll-backs or any air  
5 quality -- I am sorry -- I know you are committed to --

6 COMMISSIONER BOYD: No backsliding.

7 MS. HOLMES-GEN: No backsliding, yeah, thank you.  
8 So I know you are committed to that, and I always have to  
9 bring it up because that is my role, but I appreciate your  
10 commitment to that. I did want to suggest a couple pieces  
11 of information that we need for the committee and then some  
12 information that I think would be helpful to put out to  
13 Legislators and to other interested parties. And in terms  
14 of the committee, I think that we do need the update on the  
15 categories that we talked about. I understand the ebb and  
16 the flow and the process issues with trying to get these  
17 ARRA solicitations, but I do think we need some kind of  
18 update as to where we are, and specifically with regard to  
19 the Ethanol category and some of the funding that is going  
20 into the biofuel production plants, kind of where are we,  
21 what are the categories going to look like after we shift  
22 the money around and make some of these changes, and how  
23 does that chart line up with what we had recommended last  
24 year, and how does it line up with the focus we talked about  
25 in terms of keeping the focus on the projects that are going

1 to get us to those 2020 and 2050 targets. And we had a lot  
2 of discussion about this the last time around on the  
3 Advisory Committee.

4 Another piece of information that I think we need,  
5 and we talked about this earlier, is more information on  
6 what is the weighting of the greenhouse gas and  
7 sustainability criteria, and how is the scoring going to be  
8 done going forward? And we talked a little bit about this,  
9 but I think we need to know specifically what is the  
10 percentage of the total score that will depend on the GHG  
11 and sustainability factors. And I think that we had  
12 suggested that should be about half, about 50 percent of the  
13 total score, and that was the last policy that had been in  
14 place, and I still agree with that, that is very important,  
15 I think, to achieving the overall goals of this program.

16 And in terms of getting information out to  
17 Legislators and the public, Commissioner Boyd made a comment  
18 that, you know, he did not really want to see this  
19 particular piece of paper floating around, and I understand  
20 and I think that is smart, but nature abhors a void and  
21 there is certainly going to be a call for more information  
22 about what is happening with this important program,  
23 especially as we go into the budget cycles. So I do think  
24 that, because I think this program is so important, that we  
25 do need to have some kind of a promo piece about what we are

1 doing here, how important it is, some of the good projects  
2 that are getting funded, and what those projects are going  
3 to get us in terms of GHG reduction, you know, public  
4 health, air quality, GHG reduction benefits, whatever we can  
5 put out there that would show the value of this program  
6 based on what we have so far, and what projects have been  
7 funded, or are entered into contracts. So I think that  
8 would be an important piece to work on so that we can all  
9 help in championing the importance of this as we move  
10 forward and as questions are asked about this program.  
11 Thanks.

12 MR. SHEDD: Thank you, Commissioner. Some of the  
13 lessons that we have learned being involved in many  
14 demonstration projects over the last couple of decades with  
15 alternative fuels and advanced technology vehicles point to  
16 a couple of things that I think are important and one of  
17 them was touched on earlier this morning, and that is  
18 performance measures. There is a lot of emphasis being put  
19 on how the money is allocated on the front end, and I think  
20 there could be some more emphasis on how the performance on  
21 the back-end is dealt with. One of the things that we ran  
22 into as a state agency, and a lot of state agencies are now  
23 inputting information into the Climate Action Registry on  
24 their greenhouse gas reductions, comes down to  
25 standardization of the methodologies used to pinpoint how

1 you are reducing greenhouse gases. And what the registry  
2 does as part of their program, and it might be able to be  
3 used with some of the funding that you have allocated  
4 internally for consultants, they have auditors that come out  
5 and they look at your methodology and how you are performing  
6 your analysis, going forward, to ensure that you are using  
7 good benchmarks and that you are using a good method to come  
8 up with the criteria that is acceptable to them. And I  
9 think that might be an important tool that you can  
10 incorporate in understanding how some of these things are  
11 actually benefitting the monies that are being spent. Other  
12 than that, and you may already have some of that in, I did  
13 not hear that, and I did not necessarily see it in the plan  
14 itself, but you may have some of those tools already  
15 available to you and you are planning on using them. But  
16 one thing to just put on the table is, for all of those  
17 entities getting this money and that are going to be putting  
18 forward whatever performance that they have achieved through  
19 the use of that money, it might be helpful to be able to  
20 understand better through an independent source.

21 Another thing that came up in the evaluation  
22 criteria discussion this morning was the emphasis in the  
23 first round to leverage ARRA money to get more bang for our  
24 buck, if you will, and there was some success and some not.  
25 For those that were successful, some of them may be coming



1 back to the table again to get more grant opportunities, and  
2 some of those who were unsuccessful may be back, obviously.  
3 I do not know if there is any consideration to a hierarchy  
4 as to whether or not those that have been given ARRA funding  
5 and AB 118 funding in the first round will be eligible again  
6 year after year, or if it leaves the door open for new  
7 participants in the next year and maybe every other year you  
8 can come back, but I know a discussion from this morning  
9 talked about having some guidelines as to whether or not you  
10 have been given money in one year, and you have proven that  
11 you have performed adequately, before you can come back and  
12 get another bite of the apple.

13           One of the things that was also mentioned, I think  
14 Roland brought up the point of some potential risks with  
15 providing funding to those who may have been in litigation  
16 with the state over some of its emission rules. There may  
17 be other risks out there that the staff is taking into  
18 consideration, or not. I know in doing business with --  
19 with our department doing business with the commercial  
20 sector, there are a lot of things that are being brought to  
21 the table now that maybe had not been under consideration in  
22 the past with the budget situation, what it is, such as  
23 folks that have not paid their taxes, or maybe there are  
24 other regulatory entities that they are not in good standing  
25 with. Just not to make it more Draconian than it needs to

1 be, because I agree with Jan that the process is very  
2 difficult for anyone to get through, but just to suggest  
3 that there may be other avenues to consider based on the  
4 risk potential out there for giving out money to those who  
5 may find themselves in a compromising position because of  
6 it.

7 I do not have any sophisticated argument against  
8 the funds that are being devoted to the Hydrogen component  
9 of the project, but I do know from the ground floor where  
10 you are actually trying to get people to put alternative  
11 fuels into alternative fuel vehicles, some of the things  
12 that we have run up against over the many years is obviously  
13 the infrastructure gap, and I would suggest, based on the  
14 numbers that I have seen in the plan, that \$8.5 million for  
15 Ethanol -- and I think it is \$12 million for compressed  
16 natural gas -- these are two avenues that we have available  
17 to us today and they might be able to use more funding  
18 because, if my calculations are correct, you were going to  
19 get about 85 pumps -- E-85 pumps -- out of that \$8.5  
20 million, making a total of 183, combining the 43 existing  
21 facilities and what the federal government is going to put  
22 out there. Also from the report, it looked like the need  
23 might be closer to 1,800. There are about 10,000 or more  
24 fueling stations in California, to put it into perspective.  
25 So with 400,000 flex fuel vehicles on the road, buying over

1 883 different fueling sites, you are not going to get a lot  
2 of E-85 pumped through those vehicles, and we recognize that  
3 because we have had to install our own pumps at various  
4 locations up and down the state, just to try to get the fuel  
5 into our state vehicles, and it is very difficult to do so.  
6 We are highly dependent on the private sector, we think it  
7 is a much better public/private partnership to have the  
8 commercial sector build the pumps and stations so that we  
9 can take advantage of them, as well as the public. When it  
10 comes to electric drive and CNG on the vehicle side, the  
11 cost, the incremental cost differences, is quite prohibitive  
12 -- for fleets, anyway. It may not be the same difficulty  
13 for the private sector, commercial fleets, but for  
14 government fleets, it is a very difficult time to try and  
15 upgrade your fleet and to try and move into that sector.  
16 With electric, you have got at least two and a half to three  
17 times more expense, capital expense, on a heavy duty  
18 electric, all electric vehicle, which are available now.  
19 However, even with \$50,000 ARRA grants and \$20,000 potential  
20 from the Air Resources Board coming back, you are still  
21 money well behind trying to put those vehicles into  
22 deployment, so I would suggest to you that there might be  
23 more opportunity in the medium- and heavy-duty vehicle  
24 category for electric-drive and CNG drive cost-sharing.

25 Finally, I also would like to say, I agree with

1 the comments that have been made earlier today on the  
2 educational component, I think it is much needed for all  
3 sectors, not only the policymakers, the public, but the  
4 vehicle operators, as well. As you stated, we are entering  
5 into a demonstration project with plug-in hybrid electrics  
6 which are going to be becoming commercially available in the  
7 very near future. One of the things, while we do not have a  
8 lot of data yet gathered on that project, one of the things  
9 that we are noticing right off the bat, because we are  
10 running our information that is coming through GPS and  
11 Telematics from the Idaho National Laboratory is charging,  
12 and people's ability or willingness to charge those vehicles  
13 appropriately to take full advantage of the technology. And  
14 I think education is going to be a huge part of that.

15           Finally, you had asked for some input on  
16 innovative technologies that might be used going forward in  
17 that new category, and one of the things I had just  
18 mentioned, GPS, Telematics, it is improving our data  
19 collection to a point where I cannot really describe it, but  
20 when you go forward and try to measure success, at least in  
21 the transportation sector on the vehicle side, having  
22 accurate data is important as anything else, and in past  
23 demonstration projects where we have demonstrated everything  
24 from Ethanol vehicles all the way up to the Hydrogen  
25 vehicles, now those demonstration vehicles did have this

1 component with them and our PHEV Project also has it with  
2 them, we are getting raw data right from the vehicle itself  
3 so that we are able to really definitively know how much  
4 greenhouse gases we are eliminating, and what the driver  
5 behavior is like, and how the vehicles are being charged, so  
6 on and so forth.

7           The other thing that we are partnering with SMUD  
8 here locally is Smart Grid, and I know it was mentioned  
9 regarding the impact on the grid regarding electric vehicle  
10 charging, and I think that would be another area that we  
11 might want to look at as far as working with Smart Grid to  
12 get these vehicles charged up after peak hours. It also  
13 would provide you with the data resource on how much it is  
14 costing to charge those vehicles and when they are charging,  
15 and it can be programmable, they can turn the switch on or  
16 off, depending on need. So those are my comments.

17           COMMISSIONER BOYD: Thanks, Rick. Shannon.

18           MS. BAKER BROWNSTETTER: Thanks. I think the cost  
19 effectiveness is not an exact science and I think that this  
20 report does a really good job, actually, of justifying the  
21 prioritization, in general. I think the prioritization  
22 makes a lot of sense. There is one thing, though, that I  
23 think does seem really disproportionate to me, and that is  
24 the fueling infrastructure that I alluded to a little bit  
25 earlier. The electric compared to Hydrogen and Ethanol. We

1 have electric at \$3 million, Hydrogen at \$14 million, and E-  
2 85 dispensers and retail at \$8.5 million. When you look at  
3 what kind of percentage of GHG emission reductions we  
4 expect, for 2020, we expect BVs and PHEVs to contribute 35  
5 percent of the reductions. And when you look at Hydrogen,  
6 it is I think less than 1 percent. And then, also, if you  
7 look for overall GHG emissions, that was just for the light-  
8 duty, again, we expect PHEV and BV to be 25 percent in 2020,  
9 and 35 percent in 2050. And, again, Hydrogen is less than 1  
10 percent. So it just seems that that proportion is not  
11 really reflected in what kind of results we could expect to  
12 see. This is true especially in light of the fact that,  
13 when we look at the chart that was provided later, showing  
14 that the \$40 million for Hydrogen fueling stations has not  
15 been able to be distributed, and it has been reduced to \$22  
16 million, it still needs to be distributed, and that all of  
17 the electric funding was spent and only \$3.2 million was  
18 invested last year in addition to the ARRA funding.

19           And I think that this is really a critical time  
20 for electric vehicles. I think there has been huge federal  
21 entanglement with Detroit -- in a good way -- for electric  
22 vehicles, and I think that Detroit is making huge roll-outs  
23 in the next couple years in addition to for new  
24 manufacturers. And I think that consumers need to really  
25 know that they are going to have the infrastructure in order

1 to even consider these cars. Sure, you have some early  
2 first adopters and some sophisticated consumers, but I think  
3 in order for it to ever be considered the default option, I  
4 think it is really important to show that early interest,  
5 early on. I think a lot of car manufacturers, if in the  
6 next few years they do not get results with electric cars; I  
7 think they are going to have a good reason to pull the plug  
8 on them. And I think that in some ways they would welcome  
9 that excuse to go back to making the cars that they were  
10 before that. So while all the other fuels, I think, are  
11 really exciting and have good potential, as well, I feel  
12 like this really is an important time for electric and if we  
13 cannot succeed with electric, that does not bode well for  
14 the other alternatives, as well. I think that the synergy  
15 with renewables and with solar installations in people's  
16 homes, and with plug-in hybrids, I think that is a really  
17 great synergy that also would support more investment in  
18 electric. And I was interested to hear about how the ARB is  
19 investing in the vehicles, but they rely on us to invest in  
20 the infrastructure, so I think that those two have to go  
21 together and I think that it just needs more than the \$3  
22 million. I agree with what Daniel and Tom said about the  
23 home stations really being important. The DOE studies and  
24 the other consumer studies I have read have shown that home  
25 fueling is really where people expect to be able to use it,

1 and so public is great as an added bonus, but if people  
2 cannot fuel at home, that is going to be a huge detriment.  
3 So I think that more incentives to have home installations,  
4 whether it is partnerships with the utility company, or with  
5 the car manufacturer, or with apartment complexes, as well  
6 as individual residences, I think there are lots of  
7 opportunities there for increasing home charging stations.  
8 So that is all I have. Thanks.

9 COMMISSIONER BOYD: Thank you. Roland, you are  
10 back. We are doing the five-minute run around the table.  
11 Concluding remarks before we hear from the public.

12 MR. HWANG: Okay, yeah, sure thing. I will make  
13 mine very quick and I apologize for having to leave the room  
14 for a few minutes. And so I do not want to be repetitive.  
15 I think I have said a lot of things already in terms of my  
16 perspective. I do want to come back to the issue of, you  
17 know, I do believe the fundamental structure of this program  
18 is the allocation and the scoring system, about whether we  
19 are going to adhere to the overall goals of the original  
20 legislation. So I do want to go back. I certainly do  
21 support the things that I did hear about reviewing how the  
22 allocation process is going, and I think we did not get a  
23 real good understanding for how the scoring system is  
24 occurring, especially the change between April and November.  
25 So more discussion and I think staff is committed to doing



1 that, writing a paper or something like that, and we greatly  
2 appreciate that. But also some post hoc evaluation of the  
3 solicitations that did come in, in terms of how they were  
4 scored. Particularly, I mean, we would encourage a more  
5 specific scoring system like the April system, which seems  
6 much less arbitrary. But I think the issue of post hoc  
7 evaluation of how staff scored out these criteria is even  
8 more critical with the November system, where especially on  
9 the greenhouse gas and sustainability aspects appear from  
10 the written description as very subjective and difficult for  
11 somebody to evaluate a project, an applicant to evaluate how  
12 the staff is going to score that out. So in the interest of  
13 transparency and encouraging the right kind of applications,  
14 the right kind of investments, I think certainly that would  
15 be an activity that I would encourage.

16 I think the overall issue of Hydrogen and  
17 electricity and other fuels, I think it is certainly a  
18 challenging issue, but I do think that we do have to keep  
19 our eyesight -- I certainly agree with a lot that was said  
20 here in terms of -- I am very bullish on plug-in hybrid  
21 electric vehicles, I think they have a great potential,  
22 especially in 2020, but in 2050, I think we have got to keep  
23 our eyes on the ball in order to meet our 80 percent  
24 reduction goal, which is, I think, very instrumental to what  
25 AB 118's purpose is. We have got to keep a very diversified

1 portfolio, I do not believe it all going to be electricity,  
2 I do not believe it is all going to be low carbon biofuel, I  
3 do not believe it is going to be through vehicle efficiency  
4 and VMT reduction. I think we are going to have to have a  
5 little of everything, including Hydrogen, and I think  
6 Hydrogen is an option we cannot take off the table at this  
7 point. I think it is at a critical part of its  
8 commercialization process as an overall perspective, and I  
9 do think that in terms of what that means in terms of the  
10 specific allocations for 2010 and 2011, I do not have a  
11 strong opinion, other than I think we need to make sure that  
12 we do not take that option off the table.

13 COMMISSIONER BOYD: Pete.

14 MR. PRICE: Just a handful of comments, quickly.  
15 And the first comment will be to the sheet and then move on  
16 to the proposed plan. So this is the first time I had  
17 clarified, for me anyway, that in the current plan, you  
18 know, \$11.5 million is being shifted from medium- and heavy-  
19 duty natural gas over to biomethane. You know, for the  
20 California Natural Gas Vehicle Coalition, that is Sophie's  
21 Choice, because we love both our children, and I think I  
22 would agree probably the two most prominent parts of this  
23 for us. But I would note that, I mean, some of our members  
24 will like the proposal, others will not, but I would note --  
25 and this kind of goes to Daniel's comment or question

1 earlier today -- about the need for funding for medium- and  
2 heavy-duty natural gas. And, look, this is the case for  
3 lots of the different areas, but in this area of funding,  
4 the proposals far outstrip the funding that was available in  
5 the first solicitation, I mean, by a large degree. I think  
6 there were two or three dozen natural gas proposals that  
7 were not funded. I think under the ARRA Clean Cities  
8 formulation, they were identified as disqualified, but that  
9 does not mean that they did not qualify, it just meant that  
10 there was no money for them. So there were lots of good  
11 projects, and with all the activity in the trade corridors,  
12 the need is great. So I -- yeah, ahead the money is going  
13 to biomethane, but I think there is a need for more funding  
14 for this near-term emission reductions in heavy-duty.

15           To the current plan, some of the small stuff  
16 first, you proposed fueling station upgrades, we think that  
17 is a good idea. You mentioned that in your plan last year  
18 and have now followed through, and that makes sense to us,  
19 to make sure that the older stations, particularly in these  
20 public settings, schools and whatnot, that they be  
21 maintained. And we have always never stressed  
22 infrastructure as much as vehicle incentives in our  
23 industry, that is what is more important. And that gets to  
24 the third point which is, in the current year plan, you are  
25 shifting \$2 million which was earmarked for light-duty

1 vehicle incentives over to biofuels, and in the proposed  
2 plan, there is nothing for light-duty vehicles. And if I  
3 understand the proposed plan correctly in the text, it is  
4 that you see a fair amount of federal grants and loans  
5 coming in the next year or two in this area, and you want to  
6 see if that funding has the desired effect of getting the  
7 OEM's more interesting in producing some more models, and if  
8 it does, I mean, we will look back in a couple years and see  
9 if that had the effect, and if it does, then incentives  
10 might make more sense because there will be more vehicles  
11 out there to incent people to buy. So I understand the  
12 logic, but we obviously, just as a general point, for our  
13 industry, vehicle purchase incentives are the key. The  
14 infrastructure will be there, we believe, for natural gas if  
15 the vehicles are.

16           On the '10-'11 Investment Plan, for biomethane,  
17 just one small point, you have included as allowable  
18 spending for biomethane quality testing, I think, is a term  
19 which I think is very important we keep that in because one  
20 of the main things we are working on now is working with the  
21 natural gas utilities to make sure they can take biomethane,  
22 particularly from landfills, and put it into their  
23 pipelines, and there are some gas quality questions there,  
24 and so that funding could maybe help that work move along.

25           On biomethane, again, and this goes to the

1 Appendices, which I know -- I am sorry I had to be out for  
2 about 30 minutes, and when I came back folks were discussing  
3 some of the tables in Appendix A, which I will follow-up  
4 later, but I would like to get a better understanding of  
5 some of the assumptions that went into these numbers and,  
6 you know, obviously when you are projecting what it is going  
7 to be like in 2050, it is assumption upon assumption, so I  
8 understand that. But the numbers -- the Energy Commission  
9 is obviously pretty enthusiastic about biomethane, you are  
10 shifting a lot of funds into that. And there is every  
11 reason to believe that we could see a significant amount of  
12 biomethane, which is the lowest carbon fuel identified so  
13 far in the Low Carbon Fuel Standard, that there be a  
14 significant amount of that available in the future. And  
15 yet, I cannot imagine that that is reflected in the charts  
16 we see in the appendix because the numbers are so low for  
17 natural gas that it would have to suggest there is no  
18 inclusion of the lowest carbon fuel out there into the  
19 state's fuel portfolio. And if these numbers and charts, as  
20 a matter of fact, are based on AB 1007, I can understand  
21 that because, you know, a few years ago, I think a lot has  
22 happened to biomethane in the last year or so, I think  
23 biomethane was not considered nearly as significantly then  
24 as it is now. And I think you ought to take another look at  
25 that. Oh, and also, in this same set of tables, in Appendix

1 A, this is on page A10, you have a table on carbon intensity  
2 for diesel and substitutes, and one of the columns is for  
3 liquefied natural gas, and it shows it slightly lower than  
4 ultra low sulfur diesel; the Air Boards recently have done a  
5 great analysis on, gosh, five or six different types of LNG,  
6 I believe, and this one, if I am not mistaken, reflects what  
7 is both the highest carbon intensity of all of those, and  
8 also the least likely to ever be used in California. I  
9 believe this is the number that represents offshore LNG and,  
10 as some of you know, the market for offshore LNG has  
11 disappeared. I mean, we are more likely to be an exporter  
12 of LNG in the future than an importer. And so I would like  
13 to make sure that we get a number for LNG that reflects what  
14 is most likely to be used and, for example, there is LNG  
15 being produced in state at Boron facility that has much --  
16 well, much better numbers than that. I think that is  
17 probably more accurate. And I think that is it. Thank you  
18 very much.

19 COMMISSIONER BOYD: Thanks, Pete. How about folks  
20 on the phone? Do we have any folks on the phone? Brooke?

21 MR. COLEMAN: Yeah.

22 COMMISSIONER BOYD: Go ahead. Thanks for sticking  
23 with us; I know it is a little later on the East Coast.

24 MR. COLEMAN: Oh, no problem, no problem. So  
25 actually that leads to my first point, I appreciate the

1 opportunity to sit in on this, I am a new Board member and I  
2 do not have a lot to add with regard to the job you guys are  
3 doing, other than to say that, as a resident of another  
4 state, I can tell you that your response to the stimulus was  
5 quick compared to many of the states that we work with. So  
6 I understand that challenge.

7           Specifically on this draft report, a couple things  
8 specific to biofuels and a couple of big picture items. In  
9 the general sense, I share the concern about how these  
10 decisions are being made. And my suggestion is that we  
11 spend some [quote unquote] "technical assistance money" on  
12 advancing at least a basic tool and transparency mechanism.  
13 And I want to suggest that with one caveat, and that is that  
14 I do not think it is useful for either myself or other Board  
15 members to micromanage what they should be experts at,  
16 however, I do think there is potential here for some middle  
17 ground, and of course, I think the problem with not doing it  
18 is that we breed this culture of perpetual debate where, you  
19 know, all the interest groups are in the dark about how the  
20 decisions are made and we disagree or agree on the  
21 conditions that should be met to get public money And  
22 specifically, you know, I think we talked about the  
23 rationale for floating a biofuel facility that was bankrupt,  
24 and that is an easy one, but I think there has to be a  
25 better mechanism to also consider the rationale for having

1 \$40 million in Hydrogen, still, and I do not mean that  
2 biofuels are better than Hydrogen, but I do think, as a  
3 public citizen, I think we need to ask the question about  
4 how these monies should be spent at least with a little bit  
5 more structure.

6 A couple more suggestions. I think, at the risk  
7 of repeating, or if it has been done before, I think for  
8 very short money, we can do an industry survey on bottleneck  
9 issues, and the reason I would like to see a recent one is  
10 -- there are basically two reasons -- one is that the  
11 economy has changed, but, two, I think there are something  
12 we can do that are not fuel specific and, at the risk of,  
13 you know, all the yes' and no's I will get in my e-mail box,  
14 you know, throw out the idea of sales tax forgiveness or a  
15 grant of some sort for forgiveness of sales tax for  
16 equipment purchases for advanced technology that would  
17 obviously reduce the capital costs of a new facility. That  
18 could be biofuels, it could be biogas, it could be just  
19 about anything. That does not have to be fuels specific,  
20 but if identified by a large number of groups in a industry  
21 survey, that is something that might be able to be applied  
22 across different fuel groups.

23 A couple of biofuel specific issues, first is I  
24 think FFVs are critical. I have been a critic in the past  
25 of taking the approach of trying to build a flex fuel



1 vehicle environment tank-by-tank, or pump-by-pump, at the  
2 state level. There is no point to rally around, we do not  
3 know when the auto industry is going to decide there are  
4 enough pumps to produce FFV's, they change their minds all  
5 the time. I think we ought to seriously reconsider figuring  
6 out a way to make sure that there are more FFV's in  
7 California and too often this is cast as a corn Ethanol  
8 thing, as a coalition that is pre-dominated by advanced  
9 biofuel folks. I can tell you that, specifically advanced  
10 alcohol fuels, the cellulosic alcohol, is reliant if not  
11 more reliant on open markets after the blend wall, than  
12 anybody else.

13           The last specific biofuel issue is the issue of  
14 sustainability. We beat it not to death, maybe to a mild  
15 pulp, and I know Jim does not want to talk about it,  
16 probably, on this call anymore, but I do not understand the  
17 rationale for only analyzing the sustainability of one fuel,  
18 and I think one of the problems is that, if you gravitate  
19 toward just the sustainability of just the fuel that  
20 presents a so-called imminent threat, you are in essence  
21 gravitating to the fuel that is the most commercially viable  
22 in the short-term, and that does not mean that we should  
23 throw out sustainability, but BMP, or Best Management  
24 Practices, are Best Management Practices. And so whether  
25 your fuel is going to be in wide use now, or five years, or

1 20 years from now, you know, water use is water use and I  
2 think we can figure out BMPs for everyone. I think we have  
3 to be careful about not just restricting the most imminent  
4 fuel with BMP because the outcome could be to perpetuate the  
5 status quo when, in fact, we are supposed to be doing just  
6 the opposite.

7           And then, finally, I came into this thing open-  
8 minded about indexing and 2050, and I am new to the process,  
9 I am going to learn more, I want to talk to people, but I  
10 have to say I have an increasing concern about the 2050  
11 timeframe. I do not think we know anything about 2050. I  
12 do not think in 1950, they knew anything about 1990. And I  
13 can see why people want to do it, because it creates  
14 incentives for far-off to have ultra clean solutions, but I  
15 am not sure it is the best and most responsible way to spend  
16 public money. I also wonder about fuel type and I think  
17 other people have these concerns and I will defer to the  
18 folks who have been involved in this type of thing for a  
19 long time. But I think it is at least worth sort of the  
20 conversation about whether this should be indexed on fuel  
21 type because I do believe there are a lot of things that  
22 cross a lot of different fuels that we could be doing, and I  
23 think fuel type gets us bogged down in making sure everybody  
24 gets their peanuts. So that is the end of my comment.

25           COMMISSIONER BOYD: Thank you. Someone else.

1 Will?

2 MR. COLEMAN: Yeah. So I think a lot has been  
3 said, you know, I do not want to repeat too much, but I want  
4 to actually applaud the staff and others for putting  
5 together these two plans. I have no doubt that they have  
6 had to navigate an increasing picophany of opinions over the  
7 last couple years, and I want to make just a few high level  
8 points. Tom had mentioned the need for doing the granular  
9 needs assessments of like what was apparently done in  
10 Hydrogen, i.e., if we build a natural gas fueling station,  
11 will there be the vehicles to consume the gas. And I think  
12 we do need to pay close attention to the feasibility of the  
13 projects we support, but I do not know that the CEC needs to  
14 take this all on themselves, either on the assessment level,  
15 or on filling all the caps. I think there needs to be some  
16 reliance on the private market for that, and I think we need  
17 to be very attuned to that. I do think that the CEC needs  
18 to do more of these assessments and increase their  
19 granularity to guide the broader allocations specifically in  
20 terms of where the dollars belong to what category. But I  
21 think a lot of the justification of benefits and the  
22 feasibility of projects can be shifted, actually, to the  
23 Applicants in a lot of these cases. And so I think we just  
24 need to be careful not to over-architect from the top down  
25 because I think there needs to be room for learning, you

1 know, from year to year, but also within a year. I think if  
2 you are going to do that, though, you have to be able to  
3 have the flexibility to move dollars between categories and  
4 to drive those solutions to the highest potential benefits,  
5 and we have seen some of that, which I think is fine, but I  
6 do think we need to make sure and it needs to be done based  
7 on potential impact and measurable potential impact, and  
8 explicit priorities, rather than just on the fact that there  
9 are a lot of hungry mouths to feed in a given area. But  
10 this is also suggesting we need a clear methodology that  
11 companies can follow to demonstrate their benefits, and I  
12 think that the CEC can use to reallocate these funds and so  
13 it is transparent to all of us.

14           So that is a specific point, and on top of it all,  
15 I think it is a little hard for us on the Advisory Board to  
16 weigh in on the allocations that we have been shown today  
17 without knowing the merits or methods driving them. I think  
18 it would be helpful in a future meeting to get a bit more  
19 clarity on what is driving these allocations. And I think  
20 it is important to spend more time developing the  
21 methodology for prioritizing categories of projects.

22           And then, to the last point, to Janine's point  
23 earlier, I think it was Janine that said it, there is really  
24 not enough money in this fund to go it alone in any one of  
25 these technology areas. So I think the key is to find ways

1 to act in conjunction with private capital, and ideally act  
2 as a catalyst for private capital, and avoid the cul-de-sacs  
3 that can often occur when you drive -- when the regulatory  
4 world drives technology solutions down a road that the  
5 private market is not going to absorb. So I think it is  
6 important to do some more thinking around that, and about  
7 how to evaluate projects on this basis. There may be some  
8 that we are just not privy to, we have not seen in the way  
9 that those evaluations have been done. I know there has  
10 been the gap analysis early on, and then also I am sure  
11 there are some other high level evaluations, but I think it  
12 is important to dig at those things a little bit more to  
13 make sure that we are really getting the highest bang for  
14 our buck and the most impact for the dollars we are spending  
15 here because obviously we are in big times and all these  
16 dollars matter. That is about it. But I do want to thank  
17 the staff for all the work they have done.

18 COMMISSIONER BOYD: Thanks, Will. I do not know  
19 if there is anyone else left out there?

20 MR. SIMPSON: One more.

21 COMMISSIONER BOYD: One more. You are still with  
22 us, good.

23 MR. SIMPSON: Sorry, Jim, hopefully I will be the  
24 last. It is Harry Simpson.

25 COMMISSIONER BOYD: Yeah, I know, Harry. I

1 wondered if you were still with us. Thanks.

2 MR. SIMPSON: I would also like to thank the  
3 staff, I know it has been a lot of work for the staff in  
4 putting this together and certainly some of the comments we  
5 have had probably do not make it any easier. But I would  
6 like to just state a couple of points and perhaps reiterate  
7 a few things. One is I echo what Will is saying, you know,  
8 I talked about it before, this sort of a need for more  
9 information and transparency on what are the drivers and how  
10 are things being prioritized in terms of making the decision  
11 for allocating these money between the different categories.  
12 I think perhaps there is a -- you know, I came into this  
13 with the sense that the Investment Plan that I have seen  
14 does not quite dovetail with the stated key objectives that  
15 you see in Table 1, for instance, of the Investment Plan as  
16 far as the policy objective and the timelines, which have  
17 some pretty concrete numbers, particularly in the near term  
18 for 2020 for GHG reduction, petroleum displacement, and  
19 state biofuels production. You know, it might be helpful  
20 if, and I think there would be a way to do that if we can  
21 look at what are the results that we would expect to see,  
22 actual hard numbers around these key policy objectives, you  
23 know, such GHG reduction and petroleum displacement, both in  
24 the near-term and the long-term, and perhaps have some way  
25 of even assigning a risk factor to being able to achieve the

1 results, because I think obviously, for the longer term, the  
2 risk factors are somewhat greater, rather than the near  
3 term, just given the market --

4           COMMISSIONER BOYD: Harry, can I interrupt you for  
5 a second? Jan Sharpless is slipping away from the table and  
6 she is a former Energy Commissioner, former Chair of the Air  
7 Resources Board, and I want to thank her for spending her  
8 birthday with us today. She did not want me to do this to  
9 her, but I could not help it. [Applause] Sorry, Harry.  
10 Excuse the interruption.

11           MR. SIMPSON: I have not seen a copy of CALCARS  
12 and it may be helpful for those of us that are interested on  
13 the committee to actually get a copy of CALCARS and look at  
14 some of the different things in terms of consumer  
15 preferences where, from what I have heard in some of these,  
16 and also what I have seen of CALCARS, there is a strong  
17 preference for certain types of technologies such as flex  
18 fuel vehicles, plug-in hybrids, diesel vehicles, and a very  
19 weak or not a strong preference for things like Hydrogen.  
20 You know, how does that get factored in on the allocation  
21 decision-making process.

22           We did not talk too much today about the criteria  
23 for evaluating proposals that come in response to  
24 solicitations, but I would support Roland's comments around  
25 having some way of really increasing the weighting, more

1 emphasis on GHG production, and in the first round I am not  
2 sure if the first round of solicitations in the First  
3 Investment plan required the proposals to actually lay out  
4 specifics on the project's performance as it relates to GHG  
5 reduction and petroleum displacement, and perhaps other  
6 important criteria. I think it is important to be able to  
7 ask the people asking for money for projects to be able to  
8 lay out what they expect to achieve so that we can actually  
9 measure whether the dollars were well spent or not, and  
10 whether the projects are delivering as promised. That is it  
11 for me.

12                   COMMISSIONER BOYD: Thank you. Is there anyone  
13 else out there who I have forgotten? I think not in terms  
14 of the Board members. So I want to thank all the Advisory  
15 Board members and turn immediately to public testimony. And  
16 if any of you have any really serious travel, commute, or  
17 what have you problems, if you would let us know, I will try  
18 to accommodate you. I noticed John Bozell is the only one  
19 in the whole audience who has raised their hand. Catherine  
20 Dunwoody was the first one to tell me -- John Bozell, we  
21 lost, unfortunately. Jamie, I know, has a ways to travel  
22 back to the Bay Area. Matt, are you -- have you got time  
23 restrictions, all the way from South Coast?

24                   MR. PEAK: If I could be in the early group, that  
25 would be useful.



1                   COMMISSIONER BOYD: And I saw Danielle's. Matt, I  
2 do not even have a card for you.

3                   MR. PEAK: I was the first one.

4                   COMMISSIONER BOYD: You were the first card? It  
5 never made it. Anyway, I will remember you, then. Okay,  
6 Catherine, go ahead, quick. And we are going to try to keep  
7 it crisp, right?

8                   MS. DUNWOODY: Yes. Thank you for the opportunity  
9 to participate today. I think you have all my written  
10 comments and I will not go through those, obviously, you  
11 have them in hand. I just want to point out, we had a lot  
12 of discussion about electric drive and Hydrogen, and I just  
13 wanted to point out Fuel Cell Vehicles are electric drive  
14 vehicles. I understand the CEC treats BEVs and PHEVs and  
15 Fuel Cell Vehicles in different categories because of the  
16 infrastructure needs, but when it comes to looking at, for  
17 example, the benefits, and there was some discussion about  
18 the carbon intensity of Hydrogen, BEVs and Fuel Cell  
19 Vehicles in California are actually equivalent, according to  
20 the Low Carbon Fuel Standard with regard to the greenhouse  
21 gas emission reductions. So I just want to remind folks of  
22 that. And the purpose of submitting these comments is  
23 really only to correct what we believe is misinformation in  
24 the Investment Plan, Table C1 and C2. This is not  
25 necessarily the Partnership's assessment of the needs or

1 roll-out strategy, that is going to come later in the form  
2 of our Annual Progress Report on the Action Plan that we  
3 published last year. So my main point is just to say that  
4 it is not just about supply and kilograms a day, it is about  
5 making sure we have an effective roll-out of fuel stations  
6 that considers establishing a network that supports  
7 customers needs in terms of locations, number of stations  
8 per cluster, and consonance that the fuel will be available  
9 when and where needed. And those cluster models supported  
10 by researchers at UC Davis and UC Irvine, among other  
11 researchers, and it shows that with two or three stations  
12 per cluster you can maximize convenience for the customer,  
13 minimize travel times, and use our limited investment  
14 dollars most effectively. I think it is important for the  
15 Commission to look separately at fueling needs for passenger  
16 vehicles and transit, we do this in our Action Plan and we  
17 have identified the amounts that we think are appropriate  
18 for each, I think that would be really helpful both in the  
19 allocation of the original \$40 million and going forward in  
20 future years. And then my last point is on timing. We  
21 really do need to allow two years, hopefully this will  
22 improve over time as we move forward in this process of  
23 funding stations, and planning and permitting and building  
24 stations, but the Investment Plan indicates that this could  
25 be done in one year, and I think there is an implication

1 there that we can wait longer to get these stations funded  
2 and started on the road to being built, and I think it is  
3 still too early to say that. You have got to consider all  
4 the factors that need to take place between solicitation and  
5 actually opening a station, and we think that time is two  
6 years. It is critical because customers have to have the  
7 confidence before they lease or purchase a Fuel Cell Vehicle  
8 that they are going to be able to get the fuel, so the  
9 infrastructure has to be out there first. So thank you very  
10 much for the time.

11 COMMISSIONER BOYD: Thanks, Catherine. Danielle.

12 MS. FUGERE: Thank you very much. I will be  
13 quick. I want to thank staff for such an in-depth report.  
14 I think the discussions here today is a testament to the  
15 fact that you gave us a lot to talk about and think about.  
16 So with that, I would echo some of the concerns for  
17 additional information that other folks have made, and today  
18 my main point is my concern about the sustainability which  
19 has been echoed by many people here today. But we spend a  
20 lot of time, we as a group invest a lot of time in  
21 sustainability, and translating the law's requirement for  
22 sustainability and greenhouse gas reduction into  
23 sustainability criteria and scoring. And what has happened  
24 is it seems like all of that has just been thrown to the  
25 wind, and so I think it makes sense to go back to the

1 criteria that was established, that criteria was very in-  
2 depth, it gave guidance to project applicants, it is much  
3 less subjective than the brief statements that are currently  
4 in place, and I just think there does not seem to be any  
5 rational basis for stepping away from what is really quite  
6 specific and useful on the part of everybody. And I believe  
7 that criteria also supports our group's concerns because not  
8 all that criteria is biofuel-related, and so it sets up  
9 sustainability issues from water to feedstock inputs and  
10 various other things, so it makes sense, I think, and I  
11 think it has been echoed here, that we talk about going back  
12 to that criteria. So I think that is my main point. So  
13 thank you very much and I look forward to working with you  
14 guys.

15 COMMISSIONER BOYD: Thank you, Danielle.

16 MR. HWANG: Can I just ask a quick question of  
17 Danielle, just to clarify. When you say the criteria, you  
18 mean the criteria that was originally proposed in the April  
19 22<sup>nd</sup> solicitations?

20 MS. FUGERE: Correct, the solicitation criteria,  
21 there were multiple sustainability points. I think they  
22 were numbered.

23 MR. HWANG: Right.

24 COMMISSIONER BOYD: That is all right, we have got  
25 the point made, you just connected with Roland's earlier

1 concern, right.

2 MS. FUGERE: Clarifying, thank you.

3 MR. HWANG: Okay, this is clarifying, yeah, okay,  
4 thanks.

5 COMMISSIONER BOYD: Matt Peak.

6 MR. PEAK: I wanted to thank everybody for such a  
7 thoughtful day of discussion. I really enjoyed it. And I  
8 wanted to talk to you about two things that, well, one thing  
9 that I heard today and one thing that I have read in the  
10 Investment Plan that I wanted to comment on. One --

11 COMMISSIONER BOYD: Matt, I forgot to announce  
12 where you are from. Would you tell the audience who you are  
13 representing here?

14 MR. PEAK: Sure. I am Matt Peak, I am with Prize  
15 Capital out of Los Angeles. And I hear a constant theme  
16 throughout the day about cost-effectiveness, about  
17 leveraging the state's funds, which I really appreciate.  
18 And building upon that, I would like to highlight a comment  
19 on page 69 of the Draft Investment Plan that talks about the  
20 notion of prize competitions, and what Prize Capital does is  
21 we fit directly into this niche by working with prize  
22 awarding entities to leverage small pots of money into  
23 something that is truly magnificent and game changing. And  
24 what I mean by prize competitions is these competitions that  
25 have over a 300-year historical precedent, going back to

1 1714, the Longitude Act, which revolutionized sea-base  
2 navigation. I am talking about the Feynman prize which was  
3 a \$25,000 prize that spurred nine teams to invest \$400,000,  
4 one of which was Charles Lindbergh to cross the Atlantic.  
5 And I am talking about the Ansari X Prize which, in 2004,  
6 was a \$10 million prize which spurred 26 teams to invest a  
7 cumulative \$100 million to chase a prize, commercialize  
8 space tourism, and today, five years later, help spur the  
9 development of a \$1.6 billion industry. Where Prize Capital  
10 plays is at the intersection of prices in the environment,  
11 energy and the environment. And we have been scoping out  
12 microbes, algae, and other advanced feed stocks for  
13 renewable fuels over the past couple of years. We had the  
14 fortune to present to the Energy Commission last fall about  
15 some concepts that we had for a California aspect to the  
16 algae fuel prizes we were dubbing it at the time, and we  
17 expect a pretty significant announcement probably towards  
18 the beginning of the second quarter of this year, along the  
19 lines of what we presented to the Commission last fall and  
20 working with organizations in the Midwest, and would  
21 definitely like to recommend that the state open the door to  
22 prizes because we see tremendous opportunity -- we would  
23 welcome the opportunity to bid for projects, focus on  
24 leveraging the state's money with private industry, with  
25 private investment dollars, and so on and so forth. We also

1 see tremendous potential to link the state's efforts with  
2 other states. This is insight that we are gaining right now  
3 with our talks in the Midwest. And to restate my  
4 recommendations that I made in the fall, there are three of  
5 them, one was we believe strongly that the state has the  
6 potential to be a leading fuel producer, and so we recommend  
7 that the Energy Commission target funds that enable the  
8 state to reach its potential, focusing on production. Now,  
9 our prize competition that we are preparing to launch is  
10 just focused on production. Secondly, we are recommending  
11 that the CEC direct a portion of its funds towards  
12 mechanisms that leverage private funds to maximize benefit.  
13 This is fully in line with what I have heard today from  
14 Commissioner Eggert, from Roland, from others presenting.  
15 And third, we see that the AB 118 funds are very much  
16 appropriate for, you know, playing a role in this mechanism.  
17 And I would, again, look forward to the opportunity to  
18 either bid, to continue discussions with the state, to talk  
19 about leveraging the state's money as everybody around this  
20 table has today with private industry, through a prize  
21 competition to generate on-the-ground real world results.  
22 Thank you.

23 COMMISSIONER BOYD: Thank you, Matt. Dr.  
24 Miyasato, South Coast District.

25 DR. MIYASATO: Thank you, Commissioner Boyd. And

1 I want to congratulate the staff and also those here for  
2 their fortitude in sitting throughout the day. I just  
3 wanted to present the South Coast AQMD staff input on the  
4 Investment Plan. Again, for the record, Matt Miyasato, I am  
5 the Assistant Deputy for Technology Advancement on the South  
6 Coast AQMD. I also want to be able to acknowledge the  
7 Energy Commission and the staff for co-funding two of the  
8 ARRA awards that the South Coast won, in particular, the  
9 Transportation and Electrification which was for plug-in  
10 hybrid electric vehicles in the medium-duty class, and then  
11 also for LNG natural gas drainage trucks that were reported  
12 by Chuck and others. And that really highlights a long  
13 history that the South Coast has had in working with the  
14 Energy Commission, this dates all the way back from the  
15 first introduction of alcohol fuels in the State of  
16 California, heavy-duty natural gas engine development,  
17 natural gas infrastructure, and even Hydrogen fueling  
18 stations. So we see AB 118 as another opportunity to,  
19 again, leverage our partnership. We see our goals aligned  
20 well with the AB 118 program, in particular, what we call  
21 our Research Development Demonstration and Deployment  
22 Program or RD-Cubed. Where our first goal has to be  
23 criteria pollutant emission reductions, so in line with what  
24 Bonnie was saying, it has really got to be health effects  
25 driven. But if you look at the goals of our program



1 compared to goals of AB 118, we see these are tightly  
2 aligned and can be leveraged quite nicely. And the intent  
3 is to accelerate the commercial development of clean  
4 technologies. I just want to remind the folks in the room,  
5 the Commissioners, that the South Coast Region has the worst  
6 air quality in the nation that results in over 6,000 deaths  
7 per year for not meeting the PM2.5 and Ozone Health  
8 Standards, and you can see acute bronchitis and other types  
9 of associated health effects, but also economic effects to  
10 the region. And recall that over 40 percent of the state's  
11 population lives in the South Coast Air Basin. And so it  
12 behooves us to move toward cleaner technologies as quickly  
13 as possible and leveraging each others fundings and  
14 resources to the extent possible. Back in October, our  
15 Board approved our research plan which looked at these  
16 different categories, so electric hybrids, fuel cells,  
17 engine development, etc., and we had a modest amount of  
18 funding compared to your \$100 million -- it is about \$10  
19 million per year, but they resourced those in categories  
20 that match very well with what we see the research plan that  
21 is developed by staff, and it has presented today. But, as  
22 I mentioned, if you look at the total dollar amounts, it  
23 does dwarf our resource allocations, but if you look at the  
24 ratio of those categories compared to the totals, which is  
25 shown on this slide, it shows that it matches very nicely

1 with our resource allocations. That is, our focus is going  
2 to be on hybrid and electric drive technologies, and that is  
3 where the CEC has funding in the draft plan, Hydrogen fuel  
4 infrastructure, engine development and technology, natural  
5 gas deployment, and also emissions studies which we are  
6 calling Analyses Tech Transfer and Outreach. So we see  
7 there are a lot of opportunities for synergies between our  
8 two programs. A final comment is that we believe that staff  
9 did a good job in maintaining a balance of capturing near-  
10 term emissions benefits, not only criteria pollutant  
11 emissions benefits, obviously greenhouse gas emission  
12 benefits, but also laying the groundwork for longer term  
13 technology development such as cellulosic Ethanol, Hydrogen  
14 fuel cells, etc. Last year was an interesting year because  
15 of the economic downturn and the ARRA opportunities, but now  
16 is the time to step back and say perhaps what was missed,  
17 where are the gaps, and I want to highlight something that  
18 Pete Price brought up and I think the staff has also  
19 identified in their table, one area where there was funding  
20 taken away and it looks like it was being put in the  
21 biomethane is light-duty natural gas vehicles. Now, the  
22 AQMD has long been supportive of certifying, verifying  
23 natural gas conversions in the light-duty sector, we simply  
24 show this as an opportunity the CEC could come back to the  
25 fold and help us implement such a program where we have buy-

1 downs and incentives for the light-duty sector, and we  
2 believe that helps with the heavy-duty sector, as well, by  
3 providing infrastructure and load for those stations. So,  
4 with that, I am going to close with this slide, is that we  
5 want to reiterate our commitment and also our offer to help  
6 administer these types of programs where we could leverage  
7 each other's -- not only our co-funding but our resources,  
8 expertise, and we do have a history of program delivery  
9 where our staff and the administration, we have the  
10 infrastructure to do these contracts, and I am going to  
11 bring up a next graphic that I showed January in 2009, in  
12 this same room is that I think, together, we both could do  
13 it and implement this program successfully. So with that,  
14 thank you, Commissioner Boyd and Eggert.

15 COMMISSIONER EGGERT: Matt, actually just a quick  
16 question with respect to your CNG activities. Is any of  
17 that currently utilizing biomethane in the vehicles?

18 MR. PEAK: There are no -- there is not sufficient  
19 production where it could use it, but that is not to say it  
20 would not be able to -- so there is no technical reason why  
21 these vehicles could not accept biomethane, there is just no  
22 production.

23 COMMISSIONER EGGERT: Got it, thanks.

24 COMMISSIONER BOYD: Let me just say, Matt, that we  
25 would be happy to work with you as we have in the past, and

1 appreciate the offer. And nice to see the similarities in  
2 trends in plans, anyway. Jamie Levin, AC Transit.

3 MR. LEVIN: Thanks, Commissioner Boyd for your  
4 interest in my --

5 COMMISSIONER BOYD: The Bus Man, as labeled by  
6 President Bush. I saw it and heard it.

7 MR. LEVIN: -- you had to remind me of that. But  
8 I will say, I took the Capitol Corridor up here and I'm  
9 going back on the Capitol Corridor, and it is a nice and  
10 relaxing, environmentally friendly way to do it. First of  
11 all, I want to comment with respect to the staff draft plan  
12 and thank staff for including transit within the hydrogen  
13 infrastructure development program. That is a great  
14 improvement over the last draft plan and I want to thank  
15 them for recognizing the work that we are accomplishing in  
16 the Bay Area. I would also like to extend my views of what  
17 is happening with hydrogen and heavy-duty applications based  
18 on Commissioner Eggert's comment about planning seeds, and  
19 note for this group, for the Advisory Committee, that we  
20 planted these seeds in the Bay Area. We are sprouting  
21 leaves and we are on the verge of sprouting blossoms. We  
22 are not just AC Transit, it is the five largest transit  
23 systems in the Bay Area that are now in partnership working  
24 together. Our current fleet of three buses has over 225,000  
25 miles on it. We have carried over 580,000 people. The fuel

1 cells are in excess of 5,000 hours of continuous operation  
2 with no sign of degradation. We are moving forward with  
3 receiving very soon in the next several months our fleet of  
4 new buses which are remarkably better than our current fleet  
5 of buses. We have awarded a contract with Linde to build  
6 two new state-of-the-art fueling stations that will  
7 replicate heavy-duty fleet fueling protocol. And we are  
8 starting construction on one of those stations. We are  
9 hoping to be a competitor for AB 118 funds for the second of  
10 those two stations. We are one of the ARRA recipients of  
11 Stimulus funding, which has given us \$6.4 million to build a  
12 new solar installation and that is specifically for the  
13 purpose of energizing an electrolyzer to produce the  
14 hydrogen that we will use for our fleet. We are shovel-  
15 ready, in fact, we have already started shoveling, and we  
16 are able and ready to spend funds. And I think what we are  
17 doing in the Bay Area -- which represents the state's  
18 efforts, the state has largely funded our program to date --  
19 is a center of excellence, and that is what is necessary. I  
20 think one of the other members of staff mentioned the  
21 importance of that center of excellence. Lastly, I would  
22 just as a matter of observation, and I guess as a question,  
23 if there are any members on the Advisory Committee that are  
24 deemed hydrogen expert, because I did not detect that  
25 expertise in the discussion, and I think it would be

1 invaluable to further discussions of this committee to  
2 include someone of that background. Thank you very much.

3 COMMISSIONER BOYD: I think Tom Cackette would be  
4 roundly insulted.

5 MR. LEVIN: He represents the ARB, not Hydrogen.

6 COMMISSIONER BOYD: All right.

7 MR. MIZUTANI: What about Commissioner Eggert?

8 COMMISSIONER BOYD: Commissioner Eggert, also, but  
9 he has got another bias, too, the Energy Commissioner.  
10 Richard Schorske, Bay Area EV Corridor Project. And I gave  
11 deference to the Bay Area part figuring we kept you here a  
12 long time. You will be followed by Tom Fulks and then Chuck  
13 White.

14 MR. SCHORSKE: Thank you, members of the Advisory  
15 Board and the Commission. My name is Richard Schorske. I  
16 am Executive Director of the EV Communities Alliance. We  
17 are a nonprofit organization which partners with industry  
18 and government to build EV ready regions that accelerate the  
19 deployment of electric drive vehicles, thereby reducing  
20 greenhouse emissions, enhancing energy security, and  
21 boosting economic vitality. The EV Communities Alliance is  
22 partnering with the Association of Bay Area Governments in  
23 nine counties within the greater San Francisco Bay Area, as  
24 well as key industry nonprofit and public agency partners to  
25 collaboratively develop the Greater Bay Area EV Corridor

1 Project. The Goal of the EV Corridor is to establish the  
2 Greater Bay Area as the EV Capitol of the United States, as  
3 measured by the nation's highest per capita deployment of  
4 electric drive vehicles, and thereby to reduce light-duty  
5 vehicle emissions by at least 70 percent by the year 2040.  
6 As an initial step towards this goal, the Corridor Project,  
7 with ABAG as lead agency, recently submitted a request for  
8 \$1.9 million in Energy Commission funding, matched by \$2  
9 million in committed local funding to build out an initial  
10 network of 540 EV charge points throughout the nine county  
11 area. In addition, we are seeking an additional \$1.8  
12 million in special federal appropriations to expand this  
13 network to a total of 720 charge points in 12 counties by  
14 the end of calendar year 2011. We have also developed plans  
15 to accelerate charging through a multi-stakeholder EV  
16 streamline initiative and likewise are working toward a goal  
17 of inter-operability among charge vendors. This past  
18 Tuesday, February 9<sup>th</sup>, the EV Corridor Project Steering Team  
19 met to consider our response to the most recent draft of the  
20 Investment Plan. I have been asked by the Steering Team to  
21 convey our deep concern that the proposed \$3 million  
22 allocation for EV infrastructure falls far short of the  
23 needs of the Bay Area and other regions that are seeking to  
24 advance EVs as a core plan solution. Most industry analysts  
25 believe that the initial success of electric drive vehicles,

1 especially less expensive BEVs such as the Nissan Leaf, will  
2 depend in large part on the availability of publicly  
3 accessible EV charging stations. Furthermore, while there  
4 has been a general assumption that most EV charging will  
5 take place overnight in the garages of single-family  
6 residences, the reality and densely urbanized areas like San  
7 Francisco, San Jose, Oakland, and other parts of the Bay  
8 Area, is that well over half of our urban corridor residents  
9 at all income levels do not have private garage space under  
10 their control. Many of these residents will rely  
11 exclusively on publicly accessible chargers that, at least  
12 initially, must be publicly financed to a significant  
13 degree. Currently, the basic math on charge stations in our  
14 region is that the acquisition and installation of a  
15 networked EV charger in a public location will cost  
16 somewhere in the neighborhood of \$5,000 to \$10,000 and yield  
17 one to two individual charge points per EV charger. In the  
18 Bay Area, we anticipate that as many as 8,000 EVs could be  
19 deployed in the 12-county region by the end of 2011, and as  
20 many as 30,000 by 2013, of which approximately half could be  
21 BEVs. Of these 30,000 vehicles, as many as 20 percent, or  
22 6,000, could be purchased by individuals living in multi-  
23 family developments, which will require some kind of  
24 publicly accessible EV charging either at work or near their  
25 residence. Conservatively, we believe that a network of



1 3,000 to 5,000 publicly accessible charge points will be  
2 needed by 2012 to adequately serve this EV fleet, especially  
3 the BEV component. That network will itself cost upwards of  
4 \$3 million in additional state resources for the Bay Area,  
5 alone. And that is assuming that we continue to develop  
6 robust private and public agency matches we have through the  
7 TFCA and through other sources. We believe that other  
8 regions in the state, especially Los Angeles and other large  
9 cities with large concentrations of multi-family housing,  
10 will likewise require a robust publicly accessible charger  
11 network. And I might add, as you know, in the San Diego and  
12 Portland and other deployments of EVSCs, the ratio is far  
13 greater than what we propose in terms of vehicles to charge  
14 points, notably 2,500 plus in Portland for a much smaller  
15 region and 12,000 in London for a region that is also  
16 smaller than the Bay Area. While the optimal ratio of EVs  
17 to publicly accessible charge stations is still being  
18 debated, it is clear that even a ratio of one publicly  
19 accessible charger to two or three EV electric drive  
20 vehicles will require substantially more state investment  
21 than is currently planned. We strongly urge that the  
22 Advisory Committee consider at least a doubling of the  
23 planned allocation to EV infrastructure to \$6 million by  
24 2011. Every EV charging station will do double-duty as an  
25 advertisement for EVs and a vote of confidence for

1 consumers, that California is truly an EV ready state. We  
2 believe that this is an essential message to convey if we  
3 are to achieve the EV deployment goals outlined in CARB's  
4 2050 Fuels Vision and to achieve our AB 32 reduction goals  
5 in the transportation sector. Thank you for your  
6 consideration of these perspectives of the Greater Bay Area  
7 Local Governments and Sustainable Mobility stakeholders.

8 COMMISSIONER BOYD: Thank you. Tom Fulks. You  
9 are wearing the Mighty Comm hat today, huh?

10 MR. FULKS: Yes, Commissioner Boyd, Commissioner  
11 Eggert. Tom Fulks. I am representing Mighty Comm -- I am  
12 here as Mighty Comm primarily because we have so many  
13 clients who have an interest in AB 118 that it is impossible  
14 for me to today do the bidding of one single client. These  
15 include Robert Bosch Diesel Systems, Robert Bosch Research  
16 and Technology Center, which is working on advanced battery  
17 technology, Daimler Fuel Cell Vehicles -- Daimler Fuel Cell  
18 Program, I should say -- Nestek Oil Renewable Diesel out of  
19 Finland. And so, because of that, I am explaining this to  
20 sort of preface my remarks so you understand where I am  
21 coming from. I have got a few specific points that I have  
22 sat through today making notice, so I will just go down, one  
23 by one; this does not mean they are in the order of  
24 priority, it just means this is how I wrote them down. In  
25 looking at your slide on funding allocations for biomass-

1 based diesel, it occurred to me -- and I heard the remark  
2 that this would be a cost share financial arrangement, and  
3 what I would like to request of your staff is for there to  
4 be -- it seems from slide to slide we are talking loans, we  
5 are talking grants, we are talking cost-share, and we do not  
6 really seem to know which financial arrangement applies to  
7 which technology allocation. So since you have already put  
8 a spreadsheet together, I would suggest adding a column that  
9 talks about your financial mechanism that you intend to use  
10 on that particular allocation for that particular  
11 technology. It can be confusing for some of your Applicants  
12 who just do not really know what to expect when they come  
13 in, other than having to -- let me put it this way --  
14 backing up from the public perspective, looking at your  
15 information online, or picking up documents, there is no  
16 explanation of how this financial relationship is going to  
17 work. And it does not take a lot to just include a line  
18 indicating which one you prefer on that technology. So I  
19 beat that one to death. Similarly, I would like to support  
20 the comments from Tom Cackette with regard to your vehicle  
21 roll-out criterion that was applied to Fuel Cell Vehicle  
22 technology. It seems to me that if you were to at least  
23 attempt to apply the same criterion to, let's just say  
24 electric drive, it cannot be that difficult, you have gotten  
25 the information from the fuel cell manufacturers, many of

1 the same people within those companies are also working on  
2 electric drive and battery driven electric drive and so  
3 forth. It cannot be that difficult to at least make the  
4 attempt to find out what their vehicle deployment numbers  
5 are going to be within the time frames you have laid out.  
6 You have already got the template established for Fuel Cell  
7 Vehicle deployment schedules, it is worth the effort. And  
8 the reason I bring this up is because I would be willing to  
9 bet you right now that the numbers that you hear from the  
10 manufacturers on their plug-in and battery electric vehicle  
11 deployments are going to be significantly different from  
12 what you are mapping out in your Investment Plan right now,  
13 I will just leave it at that. Go find out for yourselves,  
14 but my dollars are on what I just said. Moving on, I have  
15 got a specific question about Hydrogen and that is when does  
16 the solicitation for the previous cycle, the \$22 million --  
17 when does that solicitation specifically go out? I have  
18 heard soon, but do we have a date? Do you know? Can you  
19 tell me a time frame? A week? A month? It is important  
20 for some of the folks I work for.

21 COMMISSIONER BOYD: Mr. Ward, have you got a  
22 response or Chuck?

23 MR. WARD: More like a month than a week. We have  
24 a draft of that right now.

25 MR. FULKS: Okay, thank you. And then, I do not

1 know if I missed it today, but the question I have is why  
2 was the allocation for the first-year funding reduced from  
3 \$40 million to \$22 million? I mean, I suspect I know what  
4 the answer is, but I did not hear it stated today.

5 COMMISSIONER BOYD: I thought it was discussed ad  
6 nauseum, but maybe that was just me.

7 MR. FULKS: You know what, I'll pass on that one.  
8 I'll just do that one privately. Moving on to the --  
9 actually, this is one of those arcane line items, but it is  
10 important, it has been mentioned several times, and that is  
11 the marketing, the \$2.5 million or the \$2 million for  
12 marketing, or whatever it is, I do not really recall seeing  
13 an RFB going out for the last marketing allocation, maybe  
14 you did, I just do not know if that was put out to bid or  
15 not. I read your staff report that you were relying a lot  
16 on your own staff marketing expertise and that you had some  
17 consulting services that went along with that. I do not  
18 know that that went out to bid. My question is, is the next  
19 round of funding going to be subject to bid, or will that be  
20 sole sourced?

21 MR. MIZUTANI: Are you talking about the education  
22 and outreach?

23 MR. FULKS: Yes.

24 MR. MIZUTANI: \$1 million?

25 MR. FULKS: No, the \$2 million for your --

1 MR. MIZUTANI: Marketing analysis?

2 MR. FULKS: Yes. Public Outreach and Education is  
3 \$1 million -- oh, yeah, \$1 million. No, that is the old  
4 one. I am talking about the new allocation or the next  
5 funding cycle, the '10-'11 funding cycle. I think you have  
6 \$2 million slated for that. Will that be put out to bid?

7 MR. MIZUTANI: Yes.

8 MR. FULKS: Okay. Thanks. Now, the last point I  
9 would like to get to is the issue of process and the  
10 transparency, and this is why I am representing Mighty Comm  
11 as opposed to any of my clients in making these statements.  
12 And that is that, at least from the outside looking in, the  
13 makeup and the process that the CEC has gone through to  
14 gather your Advisory Committee, from the outside, is  
15 anything but transparent, at least as far as my perspective  
16 is concerned, me talking for Mighty Comm. And the reason I  
17 bring this up is because I do not recall seeing any public  
18 notices, or any invitations to join, or any call for  
19 qualifications, or anything of that nature related to the  
20 makeup of the Advisory Committee. I do not have any  
21 vendetta with anyone on the Advisory Committee, I think they  
22 are all great, and the reason I am bringing this up is  
23 because I have Hydrogen clients. I sat here all day  
24 listening to people hammer away at Hydrogen funding, and we  
25 had one person basically making responses to that and that

1 was the individual of the Air Resources Board, who really is  
2 not technically a Hydrogen advocate, at least that is not  
3 the role that I am assuming that that committee membership  
4 conveys. I would like to back-up what Jamie Levin said, and  
5 that is could you at least expand the makeup of your  
6 Advisory Committee to include someone who can speak to the  
7 Hydrogen issue because I am looking at now, you have got an  
8 advocate for Ethanol on Board, he is not even a state  
9 resident. The least you can do is send somebody out here to  
10 pay taxes in California, to advice California public policy,  
11 that is -- you know, I do not think that is too much to ask.  
12 You have got biodiesel advocates, you have got natural gas  
13 advocates, propane advocates, EV advocates, you have got  
14 advocates for everything in here except for Hydrogen. You  
15 do not have any engine manufacturers, you know, I represent  
16 the Diesel Technology Forum and they represent every single  
17 diesel engine maker out there. And I bring this up because  
18 relegating public comment to the end of the day when  
19 everybody is gone, everybody is hungry, everybody wants to  
20 leave, you miss out on some expertise that you may be able  
21 to take advantage of if you are more inclusive in terms of  
22 who is advising you. In the biodiesel emissions issue,  
23 Bonnie, to your point, specifically, I just about came out  
24 of my skin during that conversation primarily because of the  
25 direct involvement many of my clients have in that issue,

1 for example, there is a NO<sub>x</sub> penalty, there is a significant  
2 NO<sub>x</sub> increase coming from biodiesel according to ARB's own  
3 emissions calculations, using non-NO<sub>x</sub> treated engines. So if  
4 there is a 20 percent blend of the biodiesel fuel, for  
5 example, your NO<sub>x</sub> numbers go up so much that you basically  
6 threaten the compliance of light-duty diesel vehicles under  
7 the proposed new BEV 3 specifications for NO<sub>x</sub>. We are  
8 talking micrograms of NO<sub>x</sub> per kilometer in terms of getting  
9 these vehicles to be able to comply with NO<sub>x</sub> numbers, as it  
10 is. Now, if we incorporate a fuel that blows those NO<sub>x</sub>  
11 numbers through the roof, or through the threshold, you end  
12 up with a fuel that is basically unusable with your light-  
13 duty fleet. That is not going to happen here, there are  
14 additives that are being suggested, and so forth. But the  
15 engine makers, Bonnie, and my clients are as concerned about  
16 criteria emissions, specifically NO<sub>x</sub>, as your organization is  
17 because there are NO<sub>x</sub> numbers that have to be met. And you  
18 have one thing that comes in to mess up that equation like a  
19 fuel that is out of spec, or like a fuel that knocks your  
20 numbers loose, it is a problem. And so those are the sorts  
21 of items of information that could be helpful if you were to  
22 just add a couple more chairs to the table, throw a couple  
23 more people in, and ask more people for their opinions. So,  
24 again, I am finished, I have taken up way more than my three  
25 minutes, but I did want to just bring to your attention



1 that, in the interest of transparency vs. opaqueness, I  
2 would really encourage you to, first of all, explain the  
3 process that you use to select your Advisory Committee  
4 members and, secondly, consider expanding the seats at the  
5 table so that you have got the people who have to make the  
6 vehicles that everybody says they want. It would not be a  
7 bad idea to ask them what they think. And so I will leave  
8 it at that. Thank you very much.

9 COMMISSIONER BOYD: Thank you, Tom. Charles  
10 White, Waste Management.

11 MR. WHITE: Thanks, Commissioner Boyd,  
12 Commissioner Eggert, remaining members of the Committee, and  
13 the public. Chuck White with Waste Management. Waste  
14 Management, as many of you know, is currently producing the  
15 lowest carbon fuel in California, in partnership with Linde  
16 at our Altamont Landfill which is just about 70 miles from  
17 here. It is about 85 percent reduction in carbon intensity  
18 from a diesel pathway under the Low Carbon Fuel Standards.  
19 We think that the actual is even lower than that. We would  
20 like to continue expanding, converting landfill gas into  
21 LNG, but there are other kinds of waste derived fuels, waste  
22 derived biofuels -- LNG, CNG, we would like to see if we can  
23 get landfill gas into pipelines if we look to vehicle  
24 fueling stations, but right now you cannot do that in  
25 California because of CPUC. The Gas Technology Institute,

1 which has is also partnering with us on putting our plant  
2 together at Altamont, is starting up about a half-year \$1.5  
3 million study to take a look at standardizing the criteria,  
4 the treatment that has to get done to get landfilled gas  
5 into pipeline. We would like to see the Energy Commission  
6 get more involved in that. Anaerobic digestion -- we are  
7 looking at investing in anaerobic digestion technologies to  
8 put the organic waste into anaerobic digesters before it  
9 even goes into a landfill. We are looking at biodiesel  
10 technologies. We are also looking at bio-gasoline, which is  
11 one of the points I wanted to raise to you today. You have  
12 an Ethanol category which is meant to be a substitute for  
13 gasoline, but it is not very broad, it just simply seems to  
14 be Ethanol, although in the staff report and the discussion  
15 there is reference made to other types of bio-gasoline type  
16 substitutes, but it is not clear to me that, when the  
17 solicitation comes out in the next six to nine months from  
18 now under this plan, whether or not I would be able to  
19 submit an alternative to Ethanol within that category and be  
20 able to be successful and get funding if I am competitive in  
21 all other areas. So I would urge you to consider expanding  
22 the Ethanol category to a gasoline substitute category and  
23 allow other types of projects that might be more fit. We  
24 actually think that our terrabond process that we have  
25 invested in that produces organic salts from waste, and we

1 think it produces more energy per gallon, it does not  
2 require the mixing problems you have with Ethanol, it goes  
3 right into the refining process to make gasoline. We are  
4 seriously looking at sites in California today to actually  
5 set one of these facilities up and AB 118 funding would be  
6 really helpful. Another point I wanted to make, just  
7 leading off of something Mark Leary said earlier, is the  
8 whole issue of waste-derived fuels, and tying into several  
9 comments that were made about low-carbon intensity. One of  
10 the reasons the Altamont Plant produces such low-carbon fuel  
11 is it is waste-derived, it is waste material. It is the  
12 lowest carbon feedstock right now to produce fuels in  
13 California. There are 25 million tons of that going into  
14 landfills per year. It is expensive to pull it up, to  
15 segregate it, to process it, to treat it, to make the  
16 landfill gas to LNG, to make anaerobic digestion to make  
17 terrabond bio-gasoline. We would like to get started doing  
18 that and we think it would be the lowest carbon. So I would  
19 like to see the report and to make a recommendation that  
20 there be an incentive, a recognition given to waste derived  
21 fuels, or at least waste fuels that have the lowest carbon  
22 intensity and, for example, if you have got a variety of  
23 categories and a number of them would be bio-diesel Ethanol,  
24 if you could make that into bio-gasoline, biomethane, and  
25 the innovative technologies, that is about \$50 million that

1 could be used to various types of biofuel technologies, but  
2 you seem to be constrained by limits in each of these  
3 categories. And it would be nice if I came in with a very  
4 low carbon fuel for which maybe the funding has already been  
5 exhausted in that category, and there is another project I  
6 am competing with another category that has a much higher  
7 carbon intensity, why wouldn't you direct funds to the lower  
8 carbon intensity project that may be a waste-derived fuel,  
9 or it may be a crop derived fuel? But we really feel  
10 positive about the opportunities that exist to convert waste  
11 into energy here in California, in particular fuels. I  
12 think it was Ms. Sharpless that made the comment about how  
13 can you ensure that there is private investment behind it.  
14 And Waste Management works very closely with Kleiner-  
15 Perkins, it is a well-renowned investment house that really  
16 focuses on green technologies, we look to them for advice on  
17 what we think are technologies that are really going to be  
18 convertible into real scale projects. Vice President Al  
19 Gore happens to be on the Board of Directors. So, in  
20 summary, I guess three changes that I would be looking for  
21 and we think the report has been great -- but, 1) I would  
22 say, can you really give more emphasis overall to waste-  
23 derived fuels, or at least low carbon intensity fuels as a  
24 priority; it is mentioned in each of the categories, but it  
25 really does not seem to be an over-arching emphasis in the

1 report as a whole, and how money can be emphasized to do  
2 waste-derived for low-carbon fuels. I would ask, secondly,  
3 that the Ethanol category be broadened to be bio-gasoline  
4 substitutes, whether it is Ethanol, or terrabond, or some  
5 other technology, and let us compete head to head on whether  
6 or not we can come up with the capital financing for the  
7 low-carbon substitution, and if we can, then we should be  
8 able to secure some measure of AB 118 funding. And then,  
9 finally, the whole issue of carbon intensity, I am sure it  
10 would be really great if you could emphasize the low carbon  
11 intensity in those fuels that can demonstrate a low carbon  
12 intensity, that they would be a higher priority funding than  
13 others. Thank you very much.

14 COMMISSIONER BOYD: Thanks, Chuck. Mike Ryan,  
15 Coreen Vehicles.

16 MR. RYAN: Hi. Thanks for the opportunity to  
17 speak to you. With respect to battery electric vehicle  
18 market for wide adoption of battery electric vehicles, I  
19 just wanted to make a couple comments. There seems to be in  
20 the next few years a deep-seated need for a daily commuter  
21 vehicle that serves the needs of medium-income families.  
22 Coreen Vehicles is a producer of, a manufacturer of three-  
23 wheeled lithium ion battery electric vehicles and component  
24 technologies. Our company, as well as one of our  
25 competitors at Terra, have already produced, sold, and

1 delivered vehicles that are under low volume production  
2 programs. And I guess I just wanted to comment or recommend  
3 that the Commission consider three-wheeled electric vehicles  
4 within the vehicle component manufacturing aspects of your  
5 Investment Plan. And I would add that there is a sort of  
6 multiplier effect as we are working cooperatively with other  
7 innovative technologies including California-based component  
8 and battery manufacturers. And then I actually had a  
9 question in a related, but not directly related to our  
10 business, but I think important, nevertheless. The  
11 Investment Plan talks about advancement technology warranty  
12 or replacement aspects, such as the Nissan seem to be  
13 offering battery leasing as part of their business model as  
14 a way to remove the perceived lifecycle risk of owning  
15 battery electric vehicles. And this seems like a  
16 potentially successful model for accelerating the  
17 proliferation of battery electric vehicles. I just wondered  
18 if the Commission is considering anything along these lines  
19 to help promote that type of model in terms of working with  
20 financiers to grow that business model.

21 COMMISSIONER BOYD: Well, just speaking for  
22 myself, to address your last point, and I should probably  
23 let staff talk to this, but, you know, we have talked a lot  
24 about battery provision models, including battery leasing.  
25 To get to your other points about the three-wheel vehicles

1 and vehicles, in general, as you probably heard earlier  
2 today, our piece of the program, one, we do not have a bias  
3 against three-wheel vehicles that I am aware of, but --  
4 unfortunately we seem to have lost the entire ARB delegation  
5 -- but they are the ones who, through their piece of 118,  
6 they are incenting vehicle purchases and what have you,  
7 whereas we are more in the infrastructure business. And we  
8 will see that they get your message and there is somebody  
9 sitting next me who is probably real good at providing that.  
10 But that is just a reaction. Do you want to correct me on  
11 something?

12 MR. RYAN: Well, no, I do not want to correct you,  
13 but --

14 COMMISSIONER BOYD: Please do.

15 MR. RYAN: -- I am talking specifically to the  
16 manufacturing aspects.

17 COMMISSIONER BOYD: Oh, okay, good point. And  
18 tell me, Peter, is there any -- I am not aware that, in  
19 vehicle manufacturing, we would have any bias against three-  
20 wheel vehicles, would we?

21 MR. WARREN: No bias against it at all. We just  
22 do not have enough -- this year, it is battery  
23 manufacturers, electric vehicle [inaudible] and that was in  
24 our Investment Plan for last year [inaudible].

25 MR. RYAN: Okay.

1 COMMISSIONER BOYD: Thank you.

2 MR. RYAN: Thank you very much.

3 COMMISSIONER BOYD: Ricky Hanna, Electric Vehicles  
4 International. I did not do this on purpose, put all the  
5 electric vehicle people last, that is just the way the card  
6 shuffle ended up.

7 MR. HANNA: No offense taken. Well, thank you  
8 very much for giving me the opportunity to present today.  
9 Just a little introduction to our company. We are a 20-  
10 year-old electric vehicle manufacturer. Up until last year,  
11 we were located in Mexico City. We have relocated to  
12 Stockton, California. And so far with our move, we have  
13 hired 20 people. So I have got three comments. The first  
14 one, would the CEC consider doing a battery buy-back and  
15 recycling scheme? My biggest headache, which I am guessing  
16 the CEC wants to know about, is the cost of batteries. And  
17 batteries are, by far, my most expensive component and it is  
18 the biggest issue in deploying electric vehicles on a large  
19 scale. Currently in the automotive forum, the end-life of a  
20 battery is 80 percent, so the vehicle does 100 miles on day  
21 one, and after five or six years, it will do 80 miles and  
22 that is deemed end-of-life in the automotive industry. At  
23 the moment, fleet operators are paying a huge premium to use  
24 20 percent of their batteries' capability and I would like  
25 to propose doing a battery buy-back and recycling scheme



1 where recyclers would take batteries back, upgrade them to a  
2 common set of electronics and communications protocol, and  
3 recycler and dealer applications like power for cell towers  
4 and load leveling through peak times, the frequency levels.  
5 The second comment was the advanced non-road medium- and  
6 heavy-duty technology, there was a proposed \$2 million for  
7 that, which I do not think is sufficient. And for non-road  
8 vehicles, they are usually very heavy-duty, and I am  
9 thinking port vehicles or ground support in Airports, and \$2  
10 million seems quite insufficient because heavy-duty by  
11 nature are a lot more expensive. And the third comment is,  
12 one of the products we provide is the PHEV retrofit for  
13 [inaudible]. There was some text in the proposal we read  
14 about A123 being the only company certified for PHEV  
15 retrofits. I was not exactly sure in the context of that  
16 statement whether there will be funding, or will there not  
17 be funding? And was it just because there was only one  
18 company?

19 MR. MIZUTANI: The Draft Investment Plan was sort  
20 of posted after we got information from ARB about their  
21 certification of retrofits of plug-in hybrids. So I think  
22 right now, as I understand it, A123 does not have a waiver,  
23 or certified. I am aware of only one company that has, I  
24 guess, a waiver or a certification for 50 retrofits and that  
25 is about it. So there is a process going on at ARB, we just

1 need to catch up in terms of our Investment Plan.

2 MR. HANNA: Okay, well, I just wanted to reinforce  
3 the point to the CEC and also to the ARB that they we are  
4 actually in process, that we are trying to get approved, as  
5 well. So opening up another opportunity for PHEV retrofits,  
6 we would definitely be very supportive of that.

7 COMMISSIONER EGGERT: Just a quick question on the  
8 retrofit concept. How would that work as a program? I  
9 mean, would you see that you are basically providing  
10 incentives for the buy-back? Or --

11 MR. HANNA: The -- sorry -- the retrofit -- my  
12 first comment?

13 COMMISSIONER EGGERT: Yes, correct.

14 MR. HANNA: Well, because our electric vehicles, I  
15 mean, in comparison to diesel, are roughly two to three  
16 times the price, depending on how many batteries, how much  
17 it depends on how -- most people because of the large  
18 expense will not lease the vehicles; so, when I talked to a  
19 leasing company, the first question they asked me is what is  
20 the residual value on the batteries and, at the moment, we  
21 have to say zero. So, you know, so we are saying they are  
22 worthless after five years of leasing when, in fact, they  
23 are at 80 percent of their original capacity and they are  
24 useful for many other applications, you know, like frequency  
25 leveling which is, you know, a big problem in California.

1 And I think my idea addresses two issues, 1) it is  
2 essentially going to bring down the upfront cost of  
3 purchasing electric vehicles, and 2) it is going to address  
4 that we are pumping millions of dollars into electric  
5 vehicles, what are we going to do with all these batteries  
6 in five or six years' time? It addresses recycling. And  
7 for back-up power, there is no reason that those batteries  
8 would not be able to be used for, easy, another 10 years for  
9 a different application.

10 COMMISSIONER EGGERT: Okay, thanks.

11 COMMISSIONER BOYD: Let me comment on the battery  
12 part of this, and throughout the day there have been several  
13 things that have come up that I would like to comment on,  
14 but we would be here until 7:00 tonight. Where there are  
15 other activities going on in the Commission, they are ready  
16 to address the issue, but they are not part of the AB 118  
17 program. A couple years ago, through our other research  
18 program, the so-called PIER, Public Interest Energy Research  
19 Program, the Commission started a plug-in electric hybrid  
20 vehicle research center at the University of California at  
21 Davis, created a research advisory committee that I happen  
22 to chair, and one of the earliest projects identified by  
23 that research advisory committee that was deserving of  
24 follow-up and funding, which this agency has since done, was  
25 the very question of secondary use of batteries. And for

1 all the various purposes, there are potential applications  
2 you mentioned, and a few others. So there is underway right  
3 now that very type of research and I think the center put  
4 out a solicitation within the last month or so.

5 MR. EMMETT: That is open still, right now.

6 COMMISSIONER BOYD: So, anyway, we recognize that  
7 and that is being looked at, and it is a very good point, we  
8 have seen it right away. The other thing, just to comment  
9 on the seeming little amount of money devoted to electric  
10 vehicles in this plan, and certainly the Commissioner and I  
11 will look more deeply into that with the staff, but the flip  
12 side of that is, for a number of years, a lot of money has  
13 been spent here on electric vehicles, and a lot of money is  
14 being spent by the private sector on getting the grid -- is  
15 the grid ready, getting the grid ready, how, you know, the  
16 Utilities are putting up -- both the municipal and investor-  
17 owned -- are putting a pretty good effort into that activity  
18 and, again, this research center and the Research Advisory  
19 Committee has identified quite a long laundry list of the  
20 kinds of issues that need to get the grid ready. There are  
21 two major issues right now, first, the first adopters will  
22 likely be of a certain income strata, that they might not  
23 live in the same basic part of town, and they really run the  
24 potential of over-taxing their neighborhood transmission  
25 distribution system; secondly, all analyses to date have

1 been predicated, I will admit, on us being able to absorb a  
2 large number of vehicles for quite a long time, predicated  
3 on off-peak charging. But many of us sit in fear that that  
4 is not what people are going to do, we heard comments today  
5 that, if you are going to provide charging, you are going to  
6 provide it conveniently, that there are so many people that  
7 do not even live somewhere where they have some access. So  
8 that is a big problem that, again, is being pursued by other  
9 activities. So, to the extent that I guess it is the  
10 staff's knowledge of a lot of this, that may influence their  
11 feeling of how much money ought to be put in a certain  
12 category to augment lots of other money that has already  
13 been spent, or being spent, or the fact that the private  
14 sector is stepping up because they start seeing business  
15 cases for some of this, but we will still look into whether  
16 it relates to a lot of the fuels. So, in any event, just a  
17 comment or two on the points you raised. And EVI, as we  
18 call you, we -- the Governor and I and a few other folks  
19 participated in your ribbon cutting here down in Stockton  
20 last year and we are grateful to see a company relocate to  
21 California to build electric vehicles and hire Californians,  
22 so thank you for that, anyway.

23 MR. HANNA: Thank you. And, you know, many people  
24 ask me, why did you move from Mexico to California, and we  
25 are big supporters of AB 118 and we really want to keep

1 drivers -- because it really has opened up a very attractive  
2 market for us here. So, thank you for all the hard work.

3 COMMISSIONER BOYD: Thank you. That is the last  
4 of the blue cards I have here, but is there anyone on the  
5 phone who has hung in with us, who might want to make a  
6 statement or ask any other question?

7 MR. MIZUTANI: I believe there is a gentleman  
8 named Russell on the phone.

9 COMMISSIONER BOYD: Mr. Russell?

10 MR. STEELE: Do you hear me?

11 COMMISSIONER BOYD: Yes. Would you identify  
12 yourself and your association?

13 MR. STEELE: Yes, this is Russ Steele with  
14 Biodiesel --

15 COMMISSIONER BOYD: Oh, hi, Russ.

16 MR. STEELE: Good morning -- or good afternoon, or  
17 whatever it is. It was a pleasure to virtually be here in  
18 Sacramento with you, even though, as Commissioner Boyd  
19 pointed out, I missed the opportunity to view the body  
20 language, but I have been sitting in Santa Barbara and  
21 avoiding a 12-hour -- overshadowed that. The first thing I  
22 would like to do is compliment the staff. This whole  
23 process with the AB 118 funding, from the inception, has  
24 been a gargantuan undertaking, especially last spring when  
25 therein quick action was required to respond to the ARRA

1 opportunities. The staff did an exceptional job and,  
2 unfortunately, your federal brethren did not live up to the  
3 standards that you set. Basically, to make this brief, I  
4 know everybody wants to get home, is we have submitted a  
5 written comment on behalf of the California Biodiesel  
6 Alliance, it is brief, but it is about a page and a half  
7 long, I urge you to read it and think about it. Some of the  
8 questions that were raised today about, "Is there a matrix?  
9 Is there a formula," there is an attempt in there to look at  
10 some of the basic parameters and it is an indication of  
11 where some of the low hanging fruit is, and it is a starting  
12 point for some more in-depth analysis; and then specifically  
13 on bio-diesel, as with everything, there is a good way and a  
14 wrong way, a right way and a bad way to do things, and we  
15 think that the funding that is allocated for biodiesel  
16 should be directed towards making it the best possible fuel  
17 in terms of planned energy use consumption, distribution,  
18 etc., that it can be, you know, there are some suggestions  
19 in there about it, as well. So, I guess, in conclusion, I  
20 look forward to working with staff and being part of this  
21 process in developing a better budget for next year.

22           COMMISSIONER BOYD: Thank you, Russ. We will be  
23 sure and definitely look at your written summation, I have  
24 not received it as of yet here, or at least the two  
25 Commissioners have not, but we will be looking for it.

1 Anyone else out there? I guess not. Oh, okay, I used up  
2 all the blue cards, but come on up.

3 MR. ECKERT: Yeah, I did not fill one out.

4 COMMISSIONER BOYD: All right.

5 MR. ECKERT: Steve Eckert from Linde. Thanks for  
6 letting me speak. Just a couple of comments, first on  
7 biomethane. As you know, we are in partnership with Waste  
8 Management, in producing LNG out at the Altamont Landfill  
9 right now, and some comments on that. You know, biomethane  
10 is the lowest carbon fuel that is available, biomethane, the  
11 raw bio-gas is available, it is out there today to be used,  
12 so it is available immediately. And then, a third point  
13 about biomethane is it goes into the existing vehicle  
14 infrastructure, it goes into existing vehicles, it goes into  
15 existing fueling infrastructure, so there is no additional  
16 infrastructure that is necessary. So we look at biomethane  
17 investment as very cost-effective and encourage the  
18 Commission to continue with levels of funding for biomethane  
19 that would take into account what we see as some very good  
20 benefits. My second comment is around Hydrogen  
21 infrastructure. We will have four fueling stations up in  
22 the Bay Area in the next year, roughly operating on both  
23 transit, as well as for vehicles. And the funding levels of  
24 the past have been, you know, adequate to deploy Hydrogen  
25 infrastructure. We would encourage, you know -- continue



1 the same funding levels going forward for Hydrogen  
2 infrastructure. These hydrogen stations, they certainly are  
3 not inexpensive, but the big issues with these stations is,  
4 for the first three years or so of their deployment, the  
5 through-put of those stations is very very low and makes it  
6 very difficult to -- it makes it very difficult without  
7 significant funding in those stations. So, certainly with  
8 that kind of low through-put in the next several years on  
9 those types of stations, we would encourage similar levels  
10 of funding that there has been in the past for Hydrogen  
11 infrastructure. Thanks for the opportunity to speak.

12           COMMISSIONER BOYD: Thanks for being here today.  
13 Anyone else? Okay, I want to thank everyone who has been  
14 here, and particularly for those of you who are here at the  
15 present time, for this first meeting of the next round of  
16 the AB 118 Investment Plan. I think a lot of questions were  
17 raised, a lot of issues were raised with regard to the need  
18 for more information for you to understand a little bit  
19 better where we are going, and I think we heard that. All  
20 things considered compared to last year, I think we ran our  
21 first race last year and we knew a little better how to do  
22 it this year, so hopefully you got more meat to chew on, and  
23 you did chew on it today as compared to us asking you what  
24 to do -- last year, and etc. etc. So I feel relatively good  
25 about what transpired today -- well, I feel good about that

1 and relatively good about our ability to deal with it, to  
2 respond back, and to move this along, and to provide you  
3 more information, as well as be able to generate, now that  
4 the committee members, the two of us, have heard everything  
5 today, we can sit down with the staff and start digesting  
6 and talking about another iteration of a draft plan,  
7 hopefully getting closer to a final draft plan for the  
8 future. And I hope in the intervening time we can provide  
9 you some more background information, and I am even thinking  
10 for your benefit the several things I said I did not  
11 reference today, that I know are going on in other research  
12 projects and activities that would actually help you  
13 understand a better picture of the whole world that is going  
14 on, so maybe in some areas there might not be a feeling of,  
15 "Oh, it is grossly underfunded next to other activities."  
16 But I am sorry Mr. Fulks has left because he really gave it  
17 to us on Hydrogen, and I wanted to give it back to him on  
18 Hydrogen. There may be no one at -- well, wait a minute,  
19 Dan has been -- Dan is our Hydrogen person - plus I think we  
20 have seen more Hydrogen persons in the order of magnitude  
21 this year than any other fuel type, so I feel like they are  
22 over-represented in terms of getting their point of view  
23 here, but maybe I have just been beaten and battered, or we  
24 collectively have, like some of us feel today, perhaps. But  
25 in any event, thanks to everybody. And, Commissioner

1 Eggert, you might want to say a few words?

2 COMMISSIONER EGGERT: Sure. And I will also be  
3 brief. I just want to thank everyone, all of the Advisory  
4 Committee members, those that are here, those that had to  
5 depart to catch trains, etc. I have taken a copious amount  
6 of notes. I think I have certainly heard a lot of ideas for  
7 further improvement of the plan. I think some of them have  
8 the ability to be sort of incorporated into the next draft,  
9 I think others perhaps are going to require a little bit  
10 more thinking about how we actually undertake the work. It  
11 may be more appropriate for the next Investment Plan. But I  
12 think we have got a lot of material and ideas to digest here  
13 certainly over the next couple of months. I would also just  
14 say that I think this is obviously a tremendously  
15 challenging task to create a portfolio of an investment that  
16 does balance a whole variety of different societal and  
17 public goals recognizing technical and market realities, and  
18 I think we are starting in a great place, and the staff has  
19 done a tremendous amount of work in putting us in a great  
20 place to evolve the program forward. So I think, with that  
21 I will just turn it back over. And thanks again.

22 COMMISSIONER BOYD: Not that I am in a hurry to  
23 close this down or anything. Anthony promised me a beer  
24 afterwards and I am getting thirsty. Something I wished I  
25 had said this morning, in closing, you know, I will say it

1 in closing now, I really do welcome the addition of  
2 Commissioner Eggert to the Commission, but particularly to  
3 this Committee. It is frankly the first time since I have  
4 been here that there is two people on this committee who  
5 have spent a lot of time in their lives in the  
6 transportation fuels subject, so I think it will help us as  
7 an agency move this subject along, and it will help you in  
8 terms of having more people understand the details of what  
9 you are getting into, so I look forward to -- really  
10 carrying the heavy bucket of water, or electrons, or -- I do  
11 not want to offend anybody here. In any event, thanks to  
12 all of you, and good night. For us, this is Friday, so do  
13 not come tomorrow, the place is closed.

14 COMMISSIONER EGGERT: I would just say to your  
15 previous comment, what is it? Drink the best, drive the  
16 rest. All right, see you.

17 (Whereupon, at 5:25 p.m., the workshop was adjourned.)

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CERTIFICATE OF REPORTER

I, KENT ODELL, a Certified Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Workshop; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 28 day of February, 2010.

  
KENT ODELL