

DOCKET

10-ALT-01

DATE May 23 2011

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BEFORE THE STATE OF CALIFORNIA
THE NATURAL RESOURCES AGENCY
CALIFORNIA ENERGY COMMISSION (CEC)

In the Matter of:)
) Docket No.10-ALT-01
2011-2012 Investment Plan for the)
Alternative and Renewable Fuel and)
Vehicle Technology Program)

Alternative and Renewable Fuel and Vehicle Technology
Program

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

MONDAY, MAY 23, 2011

Reported by:
Kent Odell

Commissioners (and their advisors) Present:

James D. Boyd, Vice Chair
Tim Olson, Advisor to Commissioner Boyd
Carla Peterman, Commissioner

Staff Present:

Leslie Baroody
Rhetta De Mesa
Jim McKinney, Office Manager, Emerging Fuels & Technologies
Pat Perez, Deputy Director, Fuels & Transportation Division
Charles Smith
Peter Ward, Program Manager, AB 118

Advisory Committee Members Present (*via WebEx)

Shannon Baker-Branstetter, Consumers Union
Tom Cackette, Chief Deputy, California Air Resources Board
Tim Carmichael, California Natural Gas Vehicle Coalition
*Brooke Coleman, New Fuels Alliance
*Will Coleman, Mohr Davidow Ventures
Daniel Emmett, Energy Independence Now
Lesley Garland, Western Propane Gas Association
Bonnie Holmes-Gen, American Lung Association, California
Howard Levenson, Deputy Director, Cal Recycle
Brian McMahon, Executive Director, California Employment
Training Panel Program
Jack Michael, Recreational Boaters of California
John Shears, CEERT
Eileen Tutt, California Electric Transportation Coalition
Justin Ward, Vice Chairman, California Fuel Cell Partnership
and Manager, Advanced Powertrain Program, Toyota Motor Corp.

*Linda Collins, Executive Director, Career Ladders Project,
California Community Colleges
*Ed Heydorn, Air Products
*Paul Staples, Chairman and CEO, Hydrogen Industries
John Boesel, Calstart
James Chen, Tesla Motors
Bill Elrick, California Fuel Cell Partnership
Mike Ferry, California Center for Sustainable Energy and U.S.
Department of Energy Clean Cities Coordinator, San Diego Region
Matt Horton, Propel Fuels
Kevin Miller, City of Napa, Public Works, Materials Diversion
Wendy Mitchell, representing ALTe
Glenn Pascall, West Coast Corridor Coalition
David Rubinstein, California Ethanol and Power
Chuck White, Waste Management

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P R O C E E D I N G S

MAY 23, 2011 9:09 A.M.

MR. SMITH: I think if we're all ready, we might be ready to begin. Okay, good morning, ladies and gentlemen. My name is Charles Smith. I'm the Project Manager for the Fiscal Year 2011-2012 Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program.

Just a few housekeeping items before we begin. This meeting is being both recorded and we also have a Court Reporter is going to be providing us with a transcript of the meeting that should be available on our website a few days later. For those of you not familiar with this building, the closest restrooms are located just on the other side of the atrium. There is a snack bar on the second floor under the white awning. And finally, in the event of an emergency and the building is evacuated, please follow our employees to the appropriate exits. We will reconvene at Roosevelt Park, located diagonally across the street from this building. Please proceed calmly and quickly, again, following the employees with whom you are meeting to safely exit the building. Thank you. And with that, I'd like to turn the microphone over to Vice Chair Jim Boyd and Commissioner Carla Peterman for opening remarks

1 and introductions.

2 VICE CHAIR BOYD: Good morning, everybody.
3 Thank you, Charles. As indicated, I'm Jim Boyd. Being
4 Vice Chair of the Commission is not as important as
5 being Chairman of the Transportation and Fuels Committee
6 today for this hearing and I welcome you all to - well,
7 it's not a hearing - to this workshop for the
8 Alternative and Renewable Fuel and Vehicle Technology
9 Program. I'm joined on my left by - whoops, I almost
10 said our "newest Commissioner," well, I guess you are
11 because the other new Commissioner is not sworn in yet,
12 so he's not a Commissioner. So, our newest
13 Commissioner, and also the newest member of the
14 Transportation and Fuels Committee, having just been
15 appointed at committee, I guess, two meetings ago. I
16 got very lonely being the sole member of the
17 Transportation Committee. But I will make a confession,
18 at the time the committee had to interact with the staff
19 to finally make committee decisions relative to the
20 document that was released, Commissioner Peterman is
21 totally innocent of that, she cannot be indicted for any
22 of the decisions, I was forced to do it alone, so she
23 has unimpeachable plausible deniability if it gets in,
24 and if she really likes the decisions, then she can jump
25 in as deep as she would like to.

1 Anyway, I am going to ask her if she'd like to
2 say some opening remarks, which I find she is quite good
3 at, speaking extemporaneously, and then we'll go around
4 the table and introduce for the listening audience who
5 is at the table here as members of the Advisory
6 Committee, and then we'll ask those who might be
7 listening in and, Charles, I don't know if we have any -
8 we do - so I'll ask the Committee Members who are on the
9 WebEx to introduce themselves. And then we'll return to
10 the agenda and move on with the overview and the
11 discussion throughout the day. I'm getting so used to
12 all of you, and we're getting used to each other, it's a
13 very comfortable feeling now to just rejoin the Advisory
14 Committee, we've come a long way, as I've said in the
15 previous meeting, we've come to like and trust each
16 other, have the ability for pretty candid discussion,
17 and we've suffered together the whims and caprices of
18 California State Government and Fiscal and Budget
19 decision making of the last few years in the face of the
20 Recession, if not Depression, almost, that California
21 has been going through, which fortunately for us
22 trickled down more slowly to this program than it did
23 for others, but nonetheless has impacted the program, as
24 you learned in the last meeting and will hear more today
25 in terms of just revenue not realized vs. projections in

1 the past, particularly when the legislation was passed.
2 With that, Ms. Peterman, I will offer you an opportunity
3 to make comments as you would like.

4 COMMISSIONER PETERMAN: Good morning. Thank
5 you, Vice Chair Boyd, for that introduction. I've been
6 learning how to comment at meetings by observing my
7 fellow Commissioner, and so I'm going to learn as much
8 as possible before he moves on to other activities. I'm
9 glad I was able to join this committee in advance of
10 this Advisory Group Meeting. Looking forward to
11 participating, understanding what different stakeholders
12 are interested in, discussing the feasibility of the
13 Investment Plan. This is a very important program and I
14 look forward to figuring out how we can continually
15 tailor it to meet our renewable fuel needs. And with
16 that, I'd like to get to know everyone else here, and so
17 I will pass to my right.

18 VICE CHAIR BOYD: We'll go that way, all
19 right. Thank you, Commissioner. And let's do
20 introductions around the table there for the listening
21 audience, starting with you, Tim. Oops, you need a
22 microphone.

23 MR. OLSON: Tim Olson, Advisor to Commissioner
24 Boyd.

25 MR. PEREZ: Pat Perez, Deputy Director for the

1 Fuels and Transportation Division.

2 MR. MCKINNEY: Jim McKinney, Office Manager
3 for the Emerging Fuels and Technologies Office. We
4 administer the program.

5 MR. WARD: I'm Peter Ward, Program Manager for
6 AB 118.

7 MS. HOLMES-GEN: Bonnie Holmes-Gen with the
8 American Lung Association in California. Good morning.

9 MR. WARD: Justin Ward, I'm a Vice Chairman of
10 the California Fuel Cell Partnership and the Advance
11 Powertrain Manager for Toyota.

12 MR. CACKETTE: Hi. I'm Tom Cackette. I'm the
13 Chief Deputy at the Air Resources Board.

14 MR. EMMETT: I am Daniel Emmett with Energy
15 Independence Now.

16 MR. CARMICHAEL: Good morning, Tim Carmichael
17 with the California Natural Gas Vehicle Coalition.

18 MS. GARLAND: Lesley Garland, Western Propane
19 Gas Association.

20 MR. LEVENSON: Good morning, Howard Levenson,
21 Deputy Director at the Department of Resources,
22 Recycling and Recovery, otherwise known as Cal Recycle.

23 MR. MCMAHON: Brian McMahon, Executive
24 Director, California Employment Training Panel Program.

25 MS. TUTT: Eileen Tutt with the California

1 Electric Transportation Coalition.

2 MR. MICHAEL: And I'm Jack Michael with
3 Recreational Boaters of California.

4 VICE CHAIR BOYD: Okay, thank you, all.
5 That's all the folks at the table here, so could members
6 of the Advisory Committee who are out there listening in
7 and participating by WebEx, could you identify
8 yourselves for those of us here in the Hearing Room?
9 And you'll just have to start in random order since I
10 don't know who is out there.

11 MS. BAKER-BRANSTETTER: Shannon Baker-
12 Branstetter with Consumers Union.

13 VICE CHAIR BOYD: Thank you.

14 MR. COLEMAN: Will Coleman, with Mohr Davidow
15 Ventures.

16 VICE CHAIR BOYD: Hi, Will. Thank you.
17 Anyone else?

18 MR. COLEMAN: Brooke Coleman, New Fuels
19 Alliance.

20 VICE CHAIR BOYD: Okay, hi, Brooke. Anyone
21 else? Okay, and I know that Jan Sharpless sent an email
22 indicating she has the flu and is not able to be here
23 today. And I'm not sure if I was in her shape I would
24 want to listen in either, so maybe she's not. Okay,
25 thank you, everybody. Well, that takes care of

1 introductions and the preliminary part of the agenda.

2 Charles, let's move on to the second item on
3 the agenda, the Overview and Investment Plan Schedule,
4 and you're up.

5 MR. SMITH: Certainly. Thank you. Again, my
6 name is Charles Smith, Project Manager for the 2011-2012
7 Investment Plan. Here is an agenda that we have for our
8 meeting today. At 9:30, we will get a program status
9 update from Jim McKinney, Office Manager for the
10 Emerging Fuels and Technologies Office; at 9:45, I'll
11 present a walkthrough of the more significant changes
12 from the Staff Draft Investment Plan that the Advisory
13 Committee reviewed in March to the Committee Draft that
14 we are meeting on today; at 10:00, we will have a
15 summary of the Transportation Committee's
16 recommendations, and those focus more on the funding
17 changes from the Staff Draft to Committee Draft; after
18 that, at 10:15, we will begin Advisory Committee
19 discussion of the Committee Draft; at noon we plan to
20 break for lunch and we will reconvene at 1:00 for public
21 comment. We would like to keep our public comment
22 speakers to three minutes and keeping comments focused
23 on the content and suggestions for the Investment Plan.
24 And then we anticipate closing remarks and a summary of
25 next steps at 2:30.

1 So this is the schedule for Fiscal Year '11-
2 '12 Investment Plan adoption. Today is the second
3 Advisory Committee Meeting. In a few days, we will host
4 a remote public workshop in Long Beach and additional
5 remote public workshop on June 1st in -

6 VICE CHAIR BOYD: Will you define for me what
7 the "remote" means?

8 MR. SMITH: Yes. As part of our statutes, we
9 are required to have three workshops in different parts
10 of the state before -

11 VICE CHAIR BOYD: All right, I was just afraid
12 you were talking about a virtual, you were going to sit
13 here and conduct a workshop in Long Beach, or are you
14 trying to put the legal definition in there?

15 MR. SMITH: We are to be on the road, yes.

16 VICE CHAIR BOYD: All right.

17 MR. SMITH: So that May 26th meeting will be at
18 the Long Beach City Council Chambers, and the June 1st
19 meeting will be at the California Public Utilities
20 Commission Auditorium in San Francisco. Following these
21 workshops, we will take input from this meeting, the
22 workshops, and any final comments to our docket, in
23 preparation of the Committee Final Version of the
24 Investment Plan, and we anticipate adoption of the
25 Investment Plan at a June 29th Commission Business

1 Meeting. With that, I will turn the microphone over to
2 Mr. Jim McKinney for a Program Status Update.

3 VICE CHAIR BOYD: And see, we've already
4 banked 10 minutes, we're ahead.

5 MR. MCKINNEY: Good morning, everybody. It's
6 good to see all of you again. This presentation I'm
7 going to do should go pretty quickly because it's
8 primarily an update on what we presented to you a few
9 months ago.

10 So, as a summary, this is the Review Table for
11 all of the awards made under the 2008-2010 funding
12 cycle. Just, again, to review very briefly, so we
13 allocated \$36.5 million in ARRA awards, cost sharing,
14 and for that, we got about 2,800 electric chargers
15 throughout the state, about 700 medium-duty and heavy-
16 duty Advanced Technology Vehicles, and about 75-85
17 stations, so that was a really big boost to alternative
18 fuels and infrastructure in the state.

19 You can see for electric drive, we have good
20 amounts of money for infrastructure, vehicle demos,
21 manufacturing facilities and equipment, that was under
22 the Manufacturing PON; natural gas - those stations are
23 coming along well that we're funding; and a lot of
24 action in the biofuels area, biomethane production, and
25 again, as I think you will see in both the Staff Draft

1 to Committee Draft, we see tremendous potential for
2 biogas production in California from all the waste
3 resources that we have in our state. In Advanced
4 Ethanol and Gasoline Substitutes Production, Ethanol
5 Production, or CPIP, our E85 stations are continuing to
6 fund those; diesel substitute infrastructure, bulk
7 storage for that fueling category, \$15.7 million for
8 hydrogen fuel cell stations, \$2 million for propane
9 school buses, so that totals out at \$156.4 million, with
10 nearly 78 individual projects.

11 The other category of funds that we do are
12 through Interagency Agreements or Agreements, so
13 Workforce Development, \$15 million to EDD, Employment
14 Training Panel, and the Community Colleges was an early
15 win and success for our program, and thanks to our
16 staff, they got those out. Fuel Standards Development
17 over at CDFA for hydrogen and biofuel specs, plug-in
18 Prius demonstration at DGS, just over half a million;
19 and then two more recent grants to our sister agency,
20 the Air Resources Board, the Air Quality Improvement
21 Program, which is by statute, our partner agency in AB
22 118, so \$2 million for light-duty vehicles to help
23 support the tremendous demand for light-duty vehicle
24 incentives. And just recently, \$4 million for the
25 rapidly emerging all electric platform medium-duty and

1 heavy-duty vehicles. We have our \$1.5 for forest
2 research, thanks to Bill Kinney and Kirk Switzer, we got
3 that out the door, up and running, same with the UCI
4 street model. Our NREL agreement is still in
5 development and we hope to finish getting the money over
6 to AC Transit quite soon so we can meet the fiscal year
7 deadline for June 30th.

8 This slide looks substantially similar to what
9 staff presented at the last meeting. Again, in sum,
10 eight solicitations, over 300 proposals totaling \$1.2
11 billion in funding requests. We were able to fund 69 of
12 those, about \$188 million in total between the grant
13 awards and the 10 agreements. What staff has been doing
14 since the last workshop is just working our tails off to
15 meet the encumbrance deadline for the 2008-2010 funding
16 cycle, and we are on track to do that. Our goal is
17 articulated by the Chairman's Office and our Executive
18 Director is to encumber or safeguard all the money so we
19 don't lose it on June 30th, 2011, which is the end of the
20 fiscal year for this part of the funding cycle. We are
21 on track to do that. I think we'll have a few hiccups
22 and speed bumps along the way, but we feel good about
23 that. So, again, with the hiring freeze and other
24 constraints on state functions these days, it's quite a
25 challenge, but thanks to support from our Executive

1 Office, we've been able to put resources in from some
2 other departments and, again, we feel very good about
3 meeting this target.

4 MR. CARMICHAEL: Jim? Tim Carmichael.

5 MR. MCKINNEY: Yeah.

6 MR. CARMICHAEL: Quick question. What is the
7 encumbrance deadline?

8 MR. MCKINNEY: June 30th, 2011.

9 MR. CARMICHAEL: Thank you.

10 MR. MCKINNEY: There are a few awardees that
11 we've been working with diligently. For those who
12 haven't finished their CEQA compliance work, they need
13 to get it in by the end of this week to our counsel's
14 office, but again, we have been working diligently on
15 all of those. Several folks are here in the room who
16 we've been spending a lot of face time and phone time
17 with, so we're on track for those.

18 So, turning to our current solicitations, in
19 April, under Peter Ward's leadership, we released the
20 Buy-Down Incentive Plan for Natural Gas and Propane
21 Vehicles. This covers light-duty through heavy-duty
22 vehicle classes. The following chart lists those out.
23 This will continue until April 2013, or until all the
24 money is expended, but Pete reports that, as of the next
25 business meeting, we hope to be two-thirds of the way

1 through, so there's about \$14 million total for this
2 package and we think we're going to hit the \$10 million
3 mark pretty quickly.

4 This chart shows the vehicle classes, so light
5 duty from 8,500 pounds up to 14,000 gross vehicle
6 weight; medium-duty, 14,000 to 26,000; heavy-duty,
7 greater than 26,000. The little numbers in the
8 parentheses are the numbers of vehicles funded by each
9 of these. The rest of the chart shows the buy-down or
10 incentive amounts for this program. As with the demand
11 on individual vehicle incentives over the Air Resources
12 Board, there is a very heavy demand for this part of our
13 program. And thanks to Pete and his team for pulling
14 this together and really doing a nice job on it.

15 The other one that we have out right now is
16 what we call the PEV Readiness solicitation. This is
17 headed up by Leslie Baroody, our EV team leader, and
18 Jennifer Allen, one of our supervisors, and this has
19 been, I think, a good idea that will help meet a lot of
20 coordination needs and demands in the individual
21 regions, so we can coordinate all the activities leading
22 to what we call EV Readiness, which is providing the
23 maximum support to individual consumers, as its first
24 wave of adopters goes out and buys the new electric
25 vehicles. So, there's a maximum of \$200,000 per region

1 on this. We set it up as what we call and "open
2 solicitation," so if you meet the minimum standards and
3 qualifications, you automatically qualify. There's a
4 very creative teaming component to this that we like, we
5 really like to encourage teams, so the planning agencies
6 and individual stakeholders in each region need to team
7 up to compete for this one.

8 I already talked through most of that. For
9 the 2010-2011 funding year, we had a \$108 million
10 initial allocation, that was reduced about 20 percent
11 due to the downturn in the economy and the lower
12 revenues from the Smog Fees and Vehicle and Reg fees.
13 We pulled aside about \$1.7 million for what we call
14 Monitoring Validation and Evaluation activities, that
15 RFP is still underway. And then we also pulled just
16 about \$14 million forward, or paid it backwards,
17 depending on your perspective, because we did have a lot
18 of very high quality, high value proposals in the 28 and
19 29 funding category, so we were able to fund about nine
20 of those projects with this \$13.8 million allocation.

21 So, total remaining funds for this fiscal
22 year, just over \$70 million. And this is the status
23 sheet for the solicitations that are either up and
24 running or soon will be released during this calendar
25 year, so Gaseous Fuels, that's the buy-down program I

1 already discussed that Peter Ward is heading up, PEV
2 Planning and Support, I discussed that, Medium-Duty,
3 Heavy-Duty Demonstrations, this is primarily Advanced
4 Technology Electric Drive platforms, hybrid
5 configurations, some gaseous fuels, Aleecia Macias is
6 heading this one up and we hope to get that out over the
7 next couple months. Hydrogen fueling, so \$10.2 from
8 this current fiscal year plus whatever the Committee
9 decides upon with its current or upcoming program, and
10 we will issue a combined solicitation for that. With
11 Biofuels and Alternative Fuel Infrastructure, which
12 includes E85 and natural gas, we will also do a combined
13 solicitation combining two fiscal years and one
14 solicitation, and that's really primarily to try to make
15 the most of limited staff resources and create some
16 efficiencies in our program. We've got some money for
17 innovative technologies and Federal cost sharing and
18 then market and program support, so that totals out at
19 about \$122 million.

20 And that concludes my presentation. If there
21 are any questions from the Transportation Committee or
22 Advisory Committee members?

23 MR. MCMAHON: Jim, I had a question. In terms
24 of the solicitations, how are those impacted by the
25 current fiscal year? Do those all need to be issued and

1 completed before the end of the year?

2 MR. MCKINNEY: On this slide? Is that what
3 you mean, Brian?

4 MR. MCMAHON: Yes.

5 MR. MCKINNEY: Yeah, for these, we still have
6 for the 2010-2011 funding, so it's two years to
7 encumber, so we have a little over 13 months before the
8 next encumbrance deadline comes up for this batch.

9 MR. MCMAHON: But all those solicitations
10 would be issued between now and the end of the current
11 fiscal year?

12 MR. MCKINNEY: Calendar year.

13 MR. MCMAHON: Okay.

14 MR. EMMETT: I just had a quick question
15 regarding the schedule.

16 VICE CHAIR BOYD: Dan, would you identify
17 yourself for the folks out there in Radio Land?

18 MR. EMMETT: Sorry. Daniel Emmett. What is -
19 in terms of the schedule, where does the budget
20 subcommittee meeting fit in? Is that happening? Has it
21 already happened this year in terms of bringing this
22 plan before the Legislature? I seem to recall that we
23 got some serious direction last year that they wanted to
24 see this.

25 VICE CHAIR BOYD: They gave us a little hiatus

1 of a year, but Pat can take you through the details.

2 MR. EMMETT: Oh, good.

3 MR. PEREZ: Yeah, certainly the plan, original
4 Staff Draft Plan was submitted to the various
5 legislative Budget Committees back in February. It's my
6 understanding that Robin Smutney-Jones also sent that
7 committee draft, I believe, a week ago to those
8 committees. At this point in time, we have not received
9 any feedback from any member of the Legislature or the
10 committees on either the staff draft report, or the
11 committee draft.

12 VICE CHAIR BOYD: And it was - it's in this
13 next cycle that the plan has to go in, I guess, in
14 January, concurrent with the submission by the Governor
15 of his budget, so I would anticipate the next go-round
16 offers a possibility of more discussion about the
17 subject and I would anticipate hopefully more time to
18 talk about this subject in that they might have the
19 fiscal crisis solved, but I'm losing confidence daily.
20 In any event...

21 MR. EMMETT: Great. Just wanted to make sure
22 - last year, we had to trot over there and, you know,
23 voice our support, so I wanted to make sure we weren't
24 missing that task.

25 VICE CHAIR BOYD: Well, we'll have to keep the

1 issue open, still, you never know what might happen.

2 Tom?

3 MR. CACKETTE: Just to be clear on that, that
4 means that the '12-'13 plan is the one that goes on
5 January 1 of '12? So that means there's another plan
6 that has to be developed in the next seven months.

7 VICE CHAIR BOYD: If you thought you were
8 going to get a minute off?

9 MR. CACKETTE: Yes.

10 VICE CHAIR BOYD: As soon as we're done with
11 this, you'll be receiving notice of the commencement of
12 the next process and schedule for all the meetings to
13 take place between now and December, I guess. Right,
14 Pat? Anyway, I guess I get to do one more, even,
15 because I'll still be here, but not past December. Jim.

16 MR. MCKINNEY: So, if there are no more
17 questions, I'll turn this back to Charles Smith.

18 VICE CHAIR BOYD: Let me just make sure, any
19 Advisory Committee members listening in have a question
20 and didn't get recognized?

21 MR. COLEMAN: Brooke Coleman, a quick one.

22 VICE CHAIR BOYD: Go ahead, Brooke.

23 MR. COLEMAN: There is a reference to E85
24 funds in both ARRA Program and one project for \$1
25 million under the Biofuels category. Can you just

1 explain if I'm right, that there are E85 deployment
2 funds in both of those categories, and what the total
3 is? Or am I confused?

4 MR. MCKINNEY: No, you're not confused. So,
5 we funded 75 E85 stations with the ARRA cost-sharing
6 earlier in 2009, we funded 10 additional stations
7 through our standalone solicitation, that's the \$1
8 million reference in the table that reads 2008-2010
9 solicitations, let me go back to that - oops, I'm going
10 the wrong way - there we go. So, yeah, so that \$1
11 million reference in there, we got 10 additional E85
12 stations out of that.

13 MR. COLEMAN: Oh, okay, the "1" there doesn't
14 mean - I see, okay.

15 MR. MCKINNEY: Yeah, one project for multiple
16 stations. Propel was the Awardee.

17 MR. COLEMAN: Okay.

18 MR. MCKINNEY: Does that answer your question,
19 Brooke?

20 MR. COLEMAN: Yep, thanks.

21 MR. MCKINNEY: All right, thank you.

22 VICE CHAIR BOYD: Anyone else with a question?
23 Bonnie.

24 MS. HOLMES-GEN: Bonnie Holmes-Gen, and I just
25 - it's a very helpful update and it's been an

1 interesting process for everybody over the past few
2 years, and a tremendous amount of work, I know, I'm on
3 the Commission staff and I think this shows a tremendous
4 progress as we're getting these solicitations out and
5 moving the funding out and able to start calculating
6 what we're getting in terms of numbers of stations and
7 the incentives for specific numbers of vehicles, and
8 we're able to add that up and see some tangible
9 benefits, which is so important. And I'm just - I'm
10 still wondering, can you give us a sense, as all these
11 funding years kind of merge together, how the total
12 funding that has gone out and is going out, how it
13 matches up to the priorities that we have established in
14 these previous plans? You know, it's hard to tell since
15 we're merging these different years of funding together.

16 VICE CHAIR BOYD: Does staff want to take an
17 attempt at - well, I'll give a broad general comment,
18 which is based purely on memory and reflection, which
19 could be dangerous for me. I think we've said in
20 previous meetings that we have not strayed from the
21 Investment Plans that we all participated in, in the
22 past. So, even though you're right, there's not a
23 summary of here is the plan and here's one out the door.
24 I don't think we've strayed at all, if hardly at all,
25 from the previous Investment Plan, and we've not had to,

1 as we will in the future, had to seek legislative
2 permission for any changes to date. In the future,
3 we'll have to seek legislative approval to move any
4 money around, but hopefully I've given the staff enough
5 time to reflect on that now to feel free to build on
6 that, or correct me where I've been mistaken, but that's
7 what my memory tells me.

8 MR. WARD: And to add to Commissioner Boyd's
9 memory a bit, too, I recall that initially we set out on
10 task to establish the priorities for the program, and
11 then sought to find all of the available opportunities
12 to match those priorities and I think we've done that
13 fairly well over three successive Investment Plans, so
14 it is an iterative process, but we did try, especially
15 in the first year, to establish and develop the
16 priorities for the program, having GHG as the primary
17 purpose, petroleum reduction the criteria emission
18 reduction, and economic development came at us sideways
19 as the economy had its troubles. But I think we have
20 stayed consistent to that path in developing the
21 priorities and matching the opportunities to those.

22 VICE CHAIR BOYD: You know Bonnie's question
23 is a good one in terms of what people across the street
24 might ask for, so we might consider creating a chart
25 that compares. The only things that come to my mind

1 where we've had to vary from the plan as originally
2 approved in concern with this committee has been the
3 falloff of revenues, where we've had to take, you know,
4 the "haircut," as we called it and reduce a plan, at
5 least one of them had to be reduced just because it was
6 predicated on more optimistic days. I think, since
7 that, in this plan I think we've predicated it more on
8 the estimate of revenues that were likely to be
9 received, rather than the hoped for level that the
10 legislation originally was predicated on. So that's a
11 variance, but in terms of categories and the policy
12 priorities, I don't think we've varied. Actually, I
13 think because of the ARRA funding, in a few areas we
14 might have ended up with more than just what was in our
15 investment plan through the match process. And in all
16 those cases, I think we remained consistent with the
17 original priorities because that's kind of how the ARRA
18 funds lined up in terms of what our State's goals and
19 objectives were. Anyway, I do - good question and I
20 think we probably should do some kind of a comparison
21 schedule because other people will ask that very
22 question.

23 MS. HOLMES-GEN: I think it would be very very
24 helpful.

25 VICE CHAIR BOYD: And the members here would

1 probably like to be armed with that information.

2 MS. HOLMES-GEN: I would like to, and we have
3 a good story to tell, so it would be good to be able to
4 show it. And anything that we could do to show to try
5 to equate this funding to specific levels of GHG
6 reduction that can be achieved through these projects
7 would also be very helpful.

8 MR. MCKINNEY: So, Bonnie, so Jim McKinney
9 here. I know, I think part of what you're asking about
10 now is the status of what we call the AB 109 Benefits
11 Report, and that came up at the last Advisory Committee
12 Meeting, as well, and that is where we will articulate
13 in a quantitative manner the benefits to greenhouse gas
14 emissions reductions, criteria emissions reductions,
15 petroleum reduction, energy security, job development
16 and, again, just because of the staffing resource
17 constraints that we're faced with and the urgent push to
18 protect this money and get it out to the companies doing
19 this advanced technology work, that's been our focus.
20 We've had a few staffing changes on that, so Jennifer
21 Allen, who is our supervisor of our methods and
22 Quantitative Analysis Unit is going to be heading that
23 up and pretty much as soon as we finish this workshop,
24 we're going to really focus our attention on that. And
25 I'd like to say kind of in aggregate, for those, I think

1 you're especially interested in the Zero Emission
2 Vehicles, so for those two technology areas, so electric
3 drive, or partial electric drive, and hydrogen vehicles,
4 I think we can say confidently that this program is
5 helping to put California in a national leadership
6 position in supporting the OEMs as they get these
7 advanced technology vehicles out into the market. The
8 EVs are coming up real fast, there is still a lot of
9 work to do on the hydrogen side, but, again, for most of
10 those categories, I think we can say with confidence
11 that we're staking out a leadership position in the
12 country and we want to make sure we have the
13 infrastructure in place to create incentives for the
14 OEM's to bring those vehicles here because we've got the
15 market, the infrastructure, and the demand, and we want
16 that to be a success. And the same is true for what we
17 call the bridging technologies, so for natural gas
18 vehicles, again, tremendous demand and I think success
19 in that arena on the technology side. Some of the
20 technologies are earlier in their commercialization
21 curve or continuum, so finding an economical way to get
22 biomass resources into a gaseous state, or an advanced
23 ethanol state, is a challenge. We haven't got it
24 figured out yet, but if you look through what we call
25 the compendium, or the catalogue of the projects that we

1 funded, I think there are some very exciting
2 technologies and companies in there. And I really enjoy
3 leafing through that and talking to the people running
4 these companies and getting these new technologies into
5 the market.

6 MR. CARMICHAEL: One - two follow-up
7 questions, Tim Carmichael, Commissioner Boyd. First, on
8 the chart that's on the screen right now, the
9 solicitations and awards, I do think it would be helpful
10 to have an additional column with the number of vehicles
11 or number of stations. I know you've got those in your
12 notes, Jim, but I think as another tool to share
13 information beyond this group, that that's a question
14 that often comes up. And then, just following up on
15 your comments, and being very aware of the staffing
16 challenges you've got here -- that is lack of staff, not
17 quality of staff -- what is the current thinking on how
18 long it will take to produce that 109 Report? Is that
19 something we'll see this summer? Do you have a sense of
20 that yet?

21 MR. MCKINNEY: We have a statutory obligation
22 to get it into this year's IEPR, Integrated Energy
23 Policy Report, so our summer is the current target. And
24 we will produce a staff draft and then have a workshop
25 because we really want to bet the quantitative

1 approaches we're going to take with calculating the
2 benefits, I think it's very interesting, personally, I
3 like this part of the work. But if you think about how
4 do we want to attribute benefits, let's say, to
5 Quallion, who was at our last Business Meeting, they got
6 a bump up in their Advanced Battery manufacturing, but
7 those won't be getting into the market over the next
8 year or so, so how do we want to project out the
9 potential benefits and vehicle applications for that
10 technology? So, those are some of the methodological
11 challenges we have. But I think it's a fun and kind of
12 creative set of issues to work through.

13 MR. CARMICHAEL: Thank you.

14 MR. MCKINNEY: And then, Tim, to your first
15 question, as a friendly reminder, in the last staff
16 presentation that we made at the last Advisory Committee
17 meeting, there is a more detailed accounting of the
18 number of the awards and technology types for each of
19 the categories you see on this screen.

20 MR. CARMICHAEL: Great. Thank you.

21 VICE CHAIR BOYD: Any other questions? If
22 not, we'll move on to the next agenda item.

23 MR. COLEMAN: Yeah, just quickly, this is Will
24 Coleman. Just in terms of the clarification, so you
25 mentioned the AB 109 process and what you would be

1 putting out, and I understand that will be sort of a
2 full assessment of the benefit; I guess what I'm
3 wondering about is, is it possible to include in the
4 current plan the overviews of where the dollars have
5 gone, some estimate of what the projected reductions
6 would be? So, I assume those are coming in as a part of
7 these proposals and as a part of the evaluation process,
8 you know, I think it would help us in terms of judging
9 existing plans and future plans, to understand what the
10 total reductions are that are being projected. And I
11 mean by category and by project. Does that make sense?

12 MR. MCKINNEY: Again, Jim McKinney here. I
13 think I understand the gist of your question. I can
14 sympathize, we are anxious to see these numbers, too. I
15 don't want to do a disservice to any particular
16 technology type by trying to come up with something off
17 the top of my head here. To kind of repeat what I said
18 earlier, you know, any of us here could get out a
19 calculator and tally up the reductions on, say, the
20 commercially available medium duty, heavy duty trucks,
21 you've got the data there, just do the math, but we're
22 funding a lot of other categories, some very early in
23 the commercialization curve, some are commercial and on
24 the streets, and to do justice to all of those, I think
25 it's better that we wait for the staff report later this

1 summer, but that's staff's perspective.

2 MR. COLEMAN: Yeah, I guess just pushing back
3 on that a little bit, I think that part of the numbers
4 will help us understand the rationale for each of these
5 project categories, and I think it's something we've
6 talked about over prior meetings, as well, which is
7 understanding when and how much reductions you expect to
8 accomplish, to achieve, would be a useful thing. So,
9 you know, I imagine that's part of the process you guys
10 are going through when you're picking the various
11 categories and how much you're deploying, how much money
12 you're deploying in each category, but it's your point,
13 if you can pick up a calculator and do it, I think it
14 would be very helpful for all of us to have that
15 calculation - if not readily, then, in any case, having
16 to do all those calculations.

17 VICE CHAIR BOYD: Jim Boyd here. In thinking
18 about Will's question, and just pure marketing, maybe we
19 should, recognizing this report has got to go forward
20 pretty quickly, and appreciating Jim McKinney's concern
21 about fairness and equity, nonetheless, it might not be
22 a bad idea if we think about a few lines in the report
23 in referencing the ongoing effort to produce the
24 information pursuant to AB 109 and its commitment to
25 include that in the Integrated Energy Policy Report this

1 year, which will be way at the end of the year.
2 Nonetheless, it might not be a bad idea to introduce
3 that subject and maybe just a couple of examples where
4 it is easy to come up with just to indicate there, while
5 still calculating, one can estimate roughly yet and more
6 to follow things like the following - and mention one,
7 two, or three, I don't know how many categories you can
8 go into, but just a few examples, just so people get the
9 idea that that is something underway and there are some
10 data that can be shown, just so people don't think there
11 is a giant void and we have to wait until, frankly,
12 November or December when the IEPR comes out, for any
13 information. So, anyway, good thought and we'll talk
14 about that and see what we might do in the final report
15 when it is submitted in the not too distant future.

16 MS. GARLAND: Mr. Boyd, this is Lesley
17 Garland. One quick question for Jim. What is the \$7.3
18 million for Monitoring, Validation and Evaluation
19 activities? Does that go into what we've been talking
20 about with the 109 report?

21 VICE CHAIR BOYD: That goes into good
22 government and what is expected of you these days.

23 MS. GARLAND: Okay.

24 VICE CHAIR BOYD: In light of tough fiscal
25 times and in recognition of the fact that government

1 agencies have got to shine light on what they do, as
2 well as undertake activities that produce the very data
3 we're talking about here, and with the huge emphasis put
4 on this once the economic stimulus money hit the state,
5 state government is highly expectant of the fact that
6 you're going to have these kind of activities going
7 underway, and so, frankly, we took a tiny little - well,
8 took a small percentage off of every category in order
9 to finance some of those activities. I should let Pat
10 or Jim elaborate.

11 MR. PEREZ: Okay, sure. Thank you, Vice Chair
12 Boyd. This is Pat Perez again. Yeah, one of the
13 efforts that we're trying to do through the Evaluation,
14 Monitoring and Verification is to ensure that the
15 results are achieved for this money. It also provides a
16 good accounting tool for us to track the funding, as
17 well as prevent fraud, waste, and abuse, so a very very
18 important component. So this is some of that very
19 similar language that we apply for the American Recovery
20 and Reinvestment Act funds where we're carrying over
21 those exercises on the AB 118 funds, to ensure that the
22 public tax money is spent appropriately and, more
23 importantly, effectively.

24 VICE CHAIR BOYD: During our many
25 presentations to the Legislature on the economic

1 stimulus funds and where they were going and how they
2 were being spent, this issue of fraud, waste and abuse
3 was repeatedly discussed, not with any reference to this
4 agency, per se, just as it relates to programs, and
5 there was a pretty strong message that, when state
6 agencies are administering those type programs, and AB
7 118 is one of those type programs, this component is
8 expected, so on and so forth, so we got the message.

9 MS. GARLAND: Thank you.

10 VICE CHAIR BOYD: If - here comes Daniel.

11 MR. EMMETT: Just on that point, sorry, to
12 clarify, you said \$1.7 or \$1.5? Oh, \$1.73, because in
13 this next version, there's \$4 million for the same
14 thing? Is that correct? Maybe we'll get to that. That
15 was one of my earlier questions, it seemed - I wasn't
16 sure if it was for an ongoing pot of money for that, it
17 seemed big. So the same thing, or different?

18 MR. PEREZ: This is, actually, it would be for
19 the same activities. Originally, we had hoped to
20 utilize the model the U.S. Department of Energy uses on
21 MV&E, which is typically five percent. We realized we
22 were coming into the last Investment Plan a little late
23 in the game and, secondly, that we wouldn't have a lot
24 of projects up and operating at the time, so by moving
25 it closer to the \$3 million, it gets us closer to that

1 five percent, which is kind of a rule of thumb you use
2 for Monitoring, Evaluation and Performance work.

3 VICE CHAIR BOYD: We hope to be more efficient
4 than that and maybe we'll be able to plow some of that
5 back into - I shouldn't be quoted as saying "more
6 productive activities," but in any event, yeah, as
7 indicated by Pat, that's kind of the model we're
8 following. Any other questions? All right, Charles.

9 MR. SMITH: Thank you. Also as a brief note,
10 we've had a few people on WebEx request that people in
11 the building introduce themselves before they speak just
12 so that people on WebEx can keep track of who is saying
13 what. So, I'm here to provide a summary of changes from
14 the Staff Draft of the next fiscal year's Investment
15 Plan to the Committee Draft. My focus will be more on
16 the more substantive changes, but a lot of the
17 discussion as to final funding allocations will be
18 reserved for the Committee's recommendations at the end
19 of my presentation.

20 Briefly, to summarize, we received a lot of
21 input and comments on this version of the Investment
22 Plan. At the first Advisory Committee Meeting on March
23 7th, we had 15 Advisory Committee members provide input,
24 25 additional organizations and individuals also
25 provided comments at that Advisory Committee Meeting.

1 And more than 50 organizations and individuals have
2 submitted comments to our Investment Plan public docket.
3 We have tried to incorporate or address all of those
4 input and comment into the various sections of our
5 Investment Plan and, coming up on June 3rd would be the
6 preferred deadline for additional items to our docket;
7 any time after that, it becomes much more challenging to
8 work them into our Committee final version, which we
9 hope to release in early to mid-June.

10 Starting off with Plug-In Electric Vehicles,
11 we added a brief timeline that we anticipate for PEVs.
12 In the short term, we see that early adopted demand for
13 PEVs is surpassing automaker supply, which is certainly
14 encouraging. In the medium-term and in the 2013 to 2015
15 period, there's a question, though, as to whether and
16 how State and Federal incentives will be able to keep up
17 with the increasing demand for these vehicles. And
18 then, in the long term, hopefully vehicle costs will
19 become more competitive, compared to conventional
20 internal combustion engines and our early investments in
21 charging infrastructure and PEV Regional Readiness,
22 which is what we are doing today, will address the
23 market barriers that these vehicles would otherwise
24 face.

25 We have also updated our estimates of existing

1 and planned public charging points. We have provided
2 these survey results of an automaker's plans that was
3 conducted with the Air Resources Board for PIER Electric
4 and Plug-In Hybrid Electric Vehicles, and we also
5 incorporated some additional analysis on DC Fast
6 Charging along freeway corridors.

7 Our \$1 million for PEV Regional Readiness
8 remains the same, it is still our proposed allocation
9 for Fiscal Year '11-'12. The other \$7 million in funds
10 for PEV charging infrastructure have been recombined;
11 originally, they were broken out by residential
12 charging, public and workplace charging, fast charging,
13 etc. We've determined that there is a need for
14 flexibility in determining which kinds of infrastructure
15 to prioritize and we're continuing to receive a lot of
16 good information about what kinds of chargers are
17 needed. So, for that reason, we have recombined the
18 different subcategories into a \$7 million allocation.
19 As for hydrogen, we have made some revisions to the
20 fueling infrastructure analysis. We met with
21 representatives from Air Resources Board, from the Fuel
22 Cell Partnership, from the original equipment
23 manufacturers, automakers. With their help, we have
24 revised the Supply and Demand Analysis in Appendix B of
25 the Investment Plan. We anticipate that the current

1 Fiscal Year '10-'11 Investment Plan will be sufficient
2 funding for five to seven stations, that is from a \$10.2
3 million allocation. We see that additional stations may
4 be needed for three primary purposes to develop more
5 complete station networks, to expand fueling station
6 coverage, and to ensure a reliable supply of fuel. And
7 we also identified that there is a need for a long-term
8 strategy to encourage hydrogen fueling station
9 deployment. The survey that we conducted with the Air
10 Resources Board earlier this year - or, actually, last
11 year -- indicated that, as of 2015, there could be
12 upwards of 50,000 fuel cell vehicles on the road,
13 obviously providing significant amounts of state funding
14 for all of the stations to meet those vehicles' needs
15 may not be a realistic option. And then our funding
16 allocation for hydrogen was adjusted in two ways, the
17 scope was expanded to include support for light duty
18 fueling stations and the overall amount was increased to
19 \$8 million. We have not, as of yet, established a
20 specific amount for light-duty fueling stations vs.
21 transit projects.

22 For Natural Gas, we added cost comparisons
23 between compressed natural gas and gasoline and, then,
24 again, between CNG and diesel. We have updated our
25 estimates on natural gas fueling stations currently

1 existing in California and on the capital cost of new
2 stations. And we have started to develop a strategy for
3 our natural gas fueling infrastructure funding be driven
4 primarily by identifying the unmet needs of long haul
5 LNG fleets and by pairing CNG fueling stations to high
6 volume fleets that anticipate converting from diesel
7 fuel to CNG.

8 For propane, we added a broader discussion of
9 propane supply and supply reliability. We also added
10 information on the potential supply of renewable propane
11 and bio-dimethylether as a blend stock for propane. And
12 then we also updated information on the ARB
13 certification of light-duty propane vehicles. For
14 biofuels in the feedstock section, we have provided some
15 updated information on algae development projects and
16 we've also clarified the ARB's updates to the indirect
17 land use change impacts of corn.

18 In the biofuels subsection gasoline
19 substitutes which was renamed from ethanol, we recognize
20 that ethanol remains the largest factor in this sector
21 of alternative fuels, but we added - for consistency,
22 added language supporting dropping gasoline substitutes
23 and that includes the possibility of non-ethanol
24 gasoline substitutes being eligible for a portion of our
25 \$7.5 million allocation for fuel production in this

1 category.

2 Also, we announced the intent to co-host with
3 the California Department of Food and Agriculture a
4 forum in the summer of 2011 on the connections between
5 biofuels, agriculture markets, and food commodities.
6 This will include addressing the potential future of the
7 California Ethanol Producers Incentive Program. Also,
8 in this section, we revised numbers of E85 consumption.
9 Originally, in the staff draft, we estimated that
10 roughly 1.1 million gallons were consumed in 2010 when,
11 in fact, it was more than three million gallons were
12 consumed in 2010, and that rapid growth is shown in
13 Figure 5 of the Investment Plan.

14 We also modestly reduced the funding for E85
15 stations from \$5 million to four million dollars. For
16 diesel substitutes, we revised our numbers pertaining to
17 biodiesel consumption from the staff draft to committee
18 draft. This is based on revised data from the Board of
19 Equalization. Our previous estimate, 58.7 million
20 gallons in 2008 proved not to be reliable and we
21 provided a revised estimate of 6.9 million gallons in
22 2009. We also revised the numbers pertaining to in-
23 state biodiesel production, it looks now like in 2010,
24 we produced 5.5 million gallons of biodiesel from a
25 total capacity of 76 million gallons. we also removed

1 funding for upstream diesel substitute fueling
2 infrastructure. This is done in part on an emphasis
3 more on renewable diesel substitutes as opposed to
4 biodiesel substitutes.

5 MR. CARMICHAEL: Charles, can you just go back
6 that one slide and explain the middle stat there? What
7 does it mean, exactly, 5.5 million gallons from a
8 capacity of --

9 MR. SMITH: Yes, so the state biodiesel
10 production facilities have an annual production
11 capacity, yeah.

12 Moving now to the medium- and heavy-duty
13 vehicles section, we clarified the eligibility of both
14 on-road and off-road medium- and heavy-duty vehicles for
15 the incentives that will be funded. We reduced the
16 funding for natural gas vehicles a small amount from \$12
17 million to \$11.5 million, and we also incorporated
18 language on our agreement with the Air Resources Board
19 to provide \$4 million in additional funding to the
20 Hybrid Voucher Incentive Program that the ARB
21 administers, that will go towards supporting incentives
22 for PIER Electric Vehicles. Also, it's unfortunately a
23 minor typo in the Investment Plan, it says \$2 million
24 for the Hybrid Vehicle Incentive Program, that should
25 have been \$4 million, as agreed.

1 The Innovative Technologies Events Fuels and
2 Federal Cost-Sharing section of the Investment Plan,
3 this was not an area that we had provided funding for in
4 the staff draft of the Investment Plan, however, we now
5 are allocating \$3 million for this category for Fiscal
6 Year '11-'12, and we added the possibility of projects,
7 including a Small Grants Program, one example to draw
8 from would be the PIER - the Energy Commission's Public
9 Interest Energy Research Program, the PIER Program,
10 Energy Innovation Small Grants. This program, as an
11 example, has a cap on funding that is \$95,000 for
12 hardware projects, and \$50,000 for modeling projects.
13 This is one potential pursuit with our \$3 million
14 allocation for this category.

15 Manufacturing, no significant changes,
16 however, we did reduce the funding allocation for this
17 activity from \$10 million to \$8 million. For workforce
18 training and development, we increased funding for
19 delivery of workforce training and development projects.
20 This is based on the identified needs of stakeholders
21 and this is an increase of \$5 million to \$6 million,
22 specifically for delivery of workforce training and
23 development.

24 Finally, Market and Program Development, we
25 provided an update on our outreach and marketing program

1 efforts, funds from the current fiscal year are expected
2 to remain available into the fiscal year '11-'12 and, as
3 such, we don't anticipate any additional funding for
4 this category being necessary in the proposed Investment
5 Plan. We added a summary of our agreement with the
6 Division of Measurement Standards within the California
7 Department of Food and Agriculture. This agreement is
8 aimed at developing a type of approval for hydrogen so
9 that hydrogen can be sold on a per kilogram basis within
10 the state, and also on developing Fuel Quality Standards
11 for hydrogen and biodiesel.

12 We also added potential for funding studies on
13 alternative fuels effects on engines, including marine
14 vehicles; this funding would come from the Technical
15 Assistance and Analysis subcategory. We reduced funding
16 for Sustainability Studies from, I believe, \$2.5 million
17 to \$1.5 million, and in Technical Assistance Analysis
18 from \$4.5 million to \$4 million.

19 So, that is a brief walk-through of the
20 changes to the content of the Investment Plan. I would
21 now turn the microphone over to our Transportation
22 Committee to discuss their recommendations on changes to
23 Funding Allocations.

24 VICE CHAIR BOYD: Thanks. Charles has been
25 pretty thorough. I'm going to go over my notes in two

1 different ways, first, I'm just going to re-highlight
2 areas of increase as a result of discussions with the
3 Transportation Committee, and areas of decrease, and
4 then I'll go back to the categories in the same order
5 that Charles presented them and just point out any other
6 points that I thought needed to be made over and above
7 those that Charles has already made, or perhaps doubly
8 amplify a comment he might have made.

9 As just mentioned, we put back in \$3 million
10 for the so-called Innovative Technologies and Advanced
11 Fuel category. Staff originally proposed no additional
12 money for that area because, frankly, we've been
13 struggling to make much progress in that arena, but just
14 because we struggle doesn't mean we don't want to move
15 forward and keep this type of an approach open. We need
16 to really get this program off the ground, we need to
17 show continuity of funding for this, we need to have
18 funds available to match unanticipated programs by other
19 governments, all of which might continue to facilitate
20 the goals and objectives that we referenced early in
21 this discussion.

22 We want to make sure that we possibly - well,
23 that we do get some kind of innovative small grants
24 program going, and we're frankly struggling with that,
25 it's not as easy in the vehicle area, it's turned out,

1 for us as it has been in our PIER Program, and the more
2 broad areas of electricity and natural gas. And the
3 reason we're persistent in trying to do this is one of
4 the greatest success stories, and kind of typical of
5 California, has been within the PIER Program, has been
6 the Small Grants Program where very small amounts of
7 money have gone to people with ideas that are vetted by
8 a advisory group of experts before any grant is made,
9 and this is the kind of stuff that leads to somebody has
10 an idea they've developed in their garage that really
11 has potential and can turn into something. I use the
12 term "garage" loosely here, but nonetheless, that's a
13 good example. And we have just innumerable examples
14 that we are laying out more and more as we defend the
15 PIER Program and try to seek its continuation in the
16 future years in the Legislature of huge success from
17 these small grant type activities, probably a bigger
18 bang for the buck has been realized there than in some
19 of the bigger investments that have been made by the
20 PIER Program over time, and we're trying to see if we
21 can't do the same thing in the Vehicle Technology and
22 Alternative Fuels arena. So, we have, for now,
23 earmarked - you know, reestablished that category just
24 to not show that we don't have faith in the possibility
25 of moving something there in that arena that really

1 addresses the goals that have been laid out for this
2 program. And as we've sat around these tables over the
3 years of this program, we've seen some rather dramatic
4 breakthroughs, we've seen hydrogen accelerate, we've
5 seen plug-in electric vehicles really accelerate beyond
6 forecasts that might have been made three or four years
7 ago, so we want to keep the options open for various
8 technologies that might help us bridge our way to the
9 future.

10 The other increased area, of course, is
11 hydrogen. We've debated and discussed this issue at
12 length among ourselves and with our sister agencies in
13 the fuel cell partnership. We know there is not
14 universal agreement on exactly the progress that's being
15 made there and the amount of money needed, but hopefully
16 we've made a significant contribution to keeping this
17 issue alive. Once again, we find ourselves all alone in
18 this venture, this is the second time the Federal
19 Government has seemed to have left this issue hanging
20 and California has had to plant the flag and point the
21 way to the future, so hopefully this is enough of a
22 figure to keep us moving in that direction, we do have
23 future years.

24 There has developed significant uncertainty in
25 my mind as to whether there are any trends in

1 applications that are going to even by viable in the
2 period of time we have here, particularly if the staff
3 succeeds in moving quickly in this arena and combining
4 the dollars here with dollars we have on the table, and
5 getting a significant proposal out the door. There is a
6 very high probability in my mind that this is all light-
7 duty money, but we're not going to close the door on the
8 thought there might be others, and I don't mean another
9 dip by our Transit District down the street here, or
10 down the highway en route to San Francisco, but rather
11 other possibilities we've heard about in the past that
12 don't seem to be materializing.

13 Natural gas, you've seen virtually no major
14 funding changes. We continue to have discussion with
15 everybody on the proper funding mix for natural gas
16 vehicles and natural gas fueling infrastructure, there
17 were some generous suggestions made at the last meeting
18 here about how the money might be allocated, some
19 parties favor significantly increasing funds for
20 vehicles and reducing funds for fueling infrastructure
21 and there are people on the other side of that equation,
22 and we've tried to walk the tightrope down that line for
23 the time being, and we will see how that goes.

24 Pretty significant amounts were made available
25 in April for medium- and heavy-duty, as you've seen.

1 And we continue to feel pretty strongly that medium- and
2 heavy-duty is an area that needs a big push in the
3 natural gas arena. And, of course, Renewable Natural
4 Gas, RNG, always looms out there on the horizon as
5 something many of us are keenly interested in.

6 Another area of increase, of course, is the
7 Workforce Training and Development. We put a million
8 additional dollars in, we are seeing good progress in
9 this area, and I would say that this is an area that may
10 be deserving of even more, but right now we're trying to
11 balance. We are having people talk to us about they're
12 less interested in us putting money in the manufacturing
13 category and more interested in the employment and work
14 training and workforce development arena, just because
15 if we're going to move to significantly different
16 technologies, we need to do some significant training to
17 prepare people for this. I think one of the biggest
18 examples of a success story in California, of course, is
19 Tesla, and we've had a lot of discussion with those
20 folks of late, and they're keenly interested in the
21 workforce development component vs. just any open
22 manufacturing because they are, like others engaging in
23 use of materials that are quite different from
24 traditional materials, etc., etc., so for now we bumped
25 it up by a million dollars and we hope it continues to

1 have the successes we're beginning to see now, and feel
2 very good about frontloading our effort in this arena in
3 the early years when that remained to be seen, where
4 that was the right way to go, and it obviously was.

5 In terms of decreases, we've reduced funding
6 for biodiesel and renewable diesel bulk terminal storage
7 facilities. You heard the incredibly significant fall-
8 off in expected volumes of biodiesel vs. realized
9 volumes, which obviously gave us a pretty significant
10 message with regard to what's happening in that arena;
11 by the same token, our interest in renewable diesel
12 continues to grow even more, and as many of you know,
13 biodiesel probably faces a number of hurdles and
14 challenges, not the least of which is the concerns of
15 the engine manufacturers with regard to warranting
16 engines to use anymore than fairly small amounts of
17 biodiesel, in spite of experimentation in other arenas.
18 So, the future may change, but for now we are looking
19 more in the direction of renewable diesel and renewable
20 diesel, of course, utilizes existing fueling
21 infrastructure, it is totally fungible with the fueling
22 infrastructure for conventional petroleum diesel, and
23 therefore is not a big problem for us.

24 A slight reduction in funding for E85 stations
25 and funding for the second round will be combined with

1 the funding we have now that we think will provide
2 enough in the near term, as indicated, to facilitate 125
3 more stations. And as indicated, we took an almost
4 imperceptible slight reduction in the natural gas
5 vehicle deployment, frankly, to contribute to funds for
6 the other areas where we had slight increases. And I've
7 already mentioned, we cut back on manufacturing
8 partially to facilitate the workforce development
9 training program and we funded nine projects in the
10 first round with monies that were combined from the
11 second round, and we expect with the current allocation
12 maybe eight to 10 additional projects.

13 And we've just taken a little bite out of
14 Sustainability Market Development because we just have
15 not been able to come to grips with what's needed there,
16 there are so many studies going on worldwide on the
17 question of sustainability that we're obviously going to
18 piggyback on all that exists and continue to identify
19 things that California may need that are more applicable
20 to our always cutting edge position, but there's no need
21 to pour money into this category if there isn't a lot of
22 pressure to spend it all, so we took a slight cut there.
23 Let me see if there's anything else I wanted to
24 reference.

25 I guess I already mentioned the issue of

1 natural gas and whether the money falls between funding
2 for fuel infrastructure or incenting vehicle purchases.
3 I'm sure there will be discussion around the table on
4 that subject, so the door remains open. As I said, we
5 tried to pick, let's just say, a middle ground on that.

6 So with that, I'll just throw the floor open
7 to all of you now to have questions, put questions to
8 staff or myself, if need be, on the allocations in the
9 plan as it stands in this, now, the Committee Draft of
10 the Plan. Oh, I'm reminded by my mindful companion here
11 that I stayed away from the most contentious subject of
12 all, successfully, until I was caught, and that's
13 ethanol and CPIP.

14 There is an obvious blank spot in the plan on
15 that subject, some people have said it's a zero, you've
16 zeroed the program out; I prefer to say there is a blank
17 spot in the plan that could be filled in, but quite
18 frankly, while this agency feels that the CPIP Program,
19 the California Ethanol Producers Incentive Program, that
20 was designed by this agency was a very positive and
21 productive and forward thinking program, that is not
22 shared by many people in that view, other than the
23 ethanol producers in California, themselves. And you're
24 all familiar with the idea that this program was
25 invented as a political favor in the last

1 Administration, and I would say that maybe in the last
2 Administration there was a lot of attention focused on
3 this subject area. At the time, we were talking about,
4 my goodness, California uses a billion gallons a year
5 and maybe it makes sense to produce maybe 200,000
6 gallons in California, and we upped that estimate in
7 later months to a billion and a half gallons a year and,
8 as you heard today, to another shocking statistic was
9 the three billion gallons a year of ethanol consumed in
10 California. We kind of thought the program, which took
11 18 months to design, had enough quid pro quo that
12 provided a positive thing for California, why not
13 produce a tiny amount of the inevitable amounts of corn
14 ethanol we're going to see for the immediate future, to
15 do it in structures that were already capitalized in
16 California, would hire Californians, would pay wages and
17 taxes in local communities in California, and contribute
18 a tiny amount of that which is needed instead of
19 bringing it by train from the Midwest, it's carbon
20 footprint is a little better than Midwest produced corn.
21 Well, a lot of people don't like corn ethanol and we've
22 gotten a ration of grief over this program, and so has
23 the State Treasurer's Office which is nothing more than
24 our Fiscal Agent, but they've been held hostage in their
25 budget negotiations by this program and, quite frankly,

1 this Commissioner is tired of getting beat up across the
2 street by Legislators who, when you walk in their
3 office, particularly if they're from agricultural areas
4 of the state, just blurt out, "I hate ethanol." It's
5 not even necessarily, "I hate the CPIP Program," some of
6 them don't even know there's such a program, they just
7 hate ethanol, and that appears to be a product of what's
8 happened to corn prices and the pressure that has put on
9 feed, animal feed, and both the livestock folks and, in
10 particular, the fowl folks - good term, no pun intended
11 - have gone crazy, and have spread stories over there
12 that you cannot believe. I've been called by friendly
13 consultants on more than one occasion to verify that
14 what they're hearing in the halls of the Capitol are
15 true or not true, relative to how this program has been
16 carried on. And because this agency is so vulnerable in
17 so many areas right now with regard to the entire Public
18 Goods Charge Program which sunsets this year, the
19 research component, PIER, which sunsets therefore, the
20 Renewables component of Public Goods Charge sunsets, and
21 a lot of people for some reason don't like us across the
22 street for fabricated, or maybe a few real reasons, it
23 ain't worth taking the grief over this program. So,
24 right now, it's a blank spot and the new California
25 Secretary of Agriculture and I have had multiple

1 discussions of this issue and, as you heard the staff
2 indicate, we mutually agreed to have a forum this year,
3 this summer, on the nexus between energy and agriculture
4 to talk about the whole arena, but obviously to talk
5 about ethanol and its future and corn ethanol, in
6 particular, and its future, and California corn ethanol
7 and its possible future, taking into account, of course,
8 the progress or lack thereof, in producing ethanol from
9 other sources. It reminds me a little bit, as I'm
10 looking at Tom right now, of the promises made for
11 battery development, the same promises that have been
12 made for cellulosic ethanol and it's not exactly showing
13 up in great volumes. I, for one, personal opinion,
14 think the nation is probably over-committed to the
15 amount of corn ethanol, but until the national program
16 is taken into consideration, California is kind of
17 caught between a rock and a hard place. So that will
18 remain a blank spot, at least through this summer's
19 debate about the subject area and when -- me speaking,
20 not the Energy Commission speaking -- frankly, when
21 Legislators ask us to reinstate the program, then I
22 would feel comfortable recommending to you and to this
23 Commission that something be put in there. Right now,
24 we're just allowing the \$6 million that was dedicated to
25 this program to just go until it's gone, and then we'll

1 see what comes next. It's not the best solution or best
2 approach, but it seems like the only approach. A lot of
3 people wanted us to terminate the program months ago,
4 just stop it, but we looked at the pros and cons and
5 decided that commitments had been made by the state and
6 the possibilities of getting commitments to re-tool
7 California plants to reduce their carbon footprint and
8 maybe produce ethanol from cellulosic materials seemed
9 like a pretty good deal, and a program that provided a
10 floor under folks if the so-called crush bread fell, and
11 provided for repayment of these loans if the glass
12 ceiling were broken, and they started making big
13 profits, it seemed like a pretty good deal. In any
14 event, a better deal than other investments, perhaps.
15 But for all those reasons, there's a blank spot there on
16 that. Thank you for reminding me. I tried to push it
17 totally out of my mind and succeeded.

18 COMMISSIONER PETERMAN: This is Commissioner
19 Peterman. Thank you, Commissioner Boyd, for providing
20 more background, and I think it tees up the importance
21 of the workshop this summer with the Department of
22 Agriculture. And so, thank you.

23 VICE CHAIR BYRON: Now the floor is open.

24 MR. CARMICHAEL: Commissioner Boyd - oh, you
25 ready to go, John? Go.

1 VICE CHAIR BOYD: John, then Tim. Welcome,
2 John. We missed you at the beginning. And, by the way,
3 say who you are to the listening audience.

4 MR. SHEARS: Yes, for those on the phone and
5 those in the room, my name is John Shears. I'm one of
6 the Advisory Committee members with the Center for
7 Energy Efficiency and Renewable Technologies. So, just
8 to start, I'd like to again thank the staff for taking
9 on this unenviable task of the Investment Plan. This
10 program, when we designing and setting up, we
11 recognized, as I've often said, that this has everything
12 in it, including the kitchen sink, and it's quite a
13 program to try to manage and handle, so I very much
14 appreciate the work and, again, I want to reiterate my
15 comments for the March workshop, which I think this
16 year's Investment Plan should serve as a goldmine of
17 information for stakeholders, both within and without
18 the State of California in terms of the activities that
19 are specifically being run within California, but also
20 associated activities at the Federal level that
21 California is counting on to support its in-state
22 activities, so kudos on a great Investment Plan.

23 I would also like to thank the staff for their
24 diligent efforts in meeting with the various
25 stakeholders to help resolve some of the issues around

1 the allotments proposed in the February draft of the
2 Investment Plan. I know the last time around, there
3 were the issues around the hydrogen infrastructure and I
4 understand there were some very productive meetings that
5 took place, that really got down to the brass tacks
6 about the technical underpinnings on hydrogen
7 infrastructure, and infrastructure issue, which led to
8 the adjustment in the plan and stakeholders didn't get
9 as much as they were asking for at the March workshop,
10 but I think this shows that both sides are willing to
11 work together to come to reasonable compromise. And I
12 just want to offer that CEERT looks forward to working
13 together with all the stakeholders on this issue going
14 forward, especially as the UC Irvine Research Group gets
15 the street model up and running, so we can start looking
16 at bottoms up approach to doing a modeling that can also
17 help inform the discussions and the deployment plans
18 around the infrastructure work. So, I'll just stop
19 there and pass it over to Tim.

20 VICE CHAIR BOYD: Thank you, John. Tim.

21 MR. CARMICHAEL: Good morning. Tim
22 Carmichael, Natural Gas Vehicle Coalition. Just a few
23 brief comments. I appreciated Charles' emails
24 encouraging written comments and I apologize for not
25 getting mine done by today, but we will submit comments

1 in the next day or two. There are just a couple things
2 I want to mention. I noticed some typos, minor things
3 that I'll address in the comments, there are a couple
4 places where I thought a graph could be clearer, there
5 are a couple places where the Executive Summary was
6 updated, but not the body of the report, I believe. All
7 of those, I'll address in our written comments.

8 I also want to note that we are still working
9 on responding to a couple staff requests for
10 information, mostly on the fueling infrastructure
11 strategy set of issues that were identified, you know,
12 what's the best way to use these funds to maximize the
13 benefit in the refueling infrastructure sector. And
14 I've got quite a bit of input that I'm assembling to
15 pass on to staff, and that will happen this week, as
16 well.

17 Two substantive issues I want to raise about
18 the draft. I thought the Committee of one did a decent
19 job, but kidding aside, two issues, one is on the
20 biomethane piece, the way it is characterized in this
21 report is pre-landfill biomethane production, and I
22 understand the write-up, my members understand the
23 write-up, there's a logic to all the points that are
24 made in the staff report and the committee version, but
25 I also want to point out that here we are today in

1 California with one landfill in California that has an
2 operating biomethane to transportation system - to
3 transportation fuel system. We've done a lot in the
4 last few years as far as research development, but we're
5 still very early in the development of this fuel as a
6 transportation fuel, and I would encourage the staff and
7 the committee to, you know, if you want to hold on to a
8 favoritism or a prioritization of pre-landfill, for all
9 the reasons you give in the report, that I think is a
10 defensible position, but let's not close the door on the
11 opportunity if you get one or more good landfill
12 projects as part of the next solicitation, that you want
13 to fund, the way you've set it up as currently drafted,
14 that wouldn't be an option. And, again, I just remind
15 everyone that we are very early in the development of
16 this alternative fuel, even from the landfill, you know,
17 source, and even less so with other sources. So, I
18 wanted to encourage that change or modification to the
19 way that the report is currently drafted.

20 The second issue I want to raise is on page
21 152 of the staff report - or, the committee report,
22 excuse me. And Pat and Jim, I think, spoke to the MVE,
23 Measurement, Verification & Evaluation, and the
24 rationale behind \$3 million, but the top half of the
25 page is the technical assistance and analysis, and I

1 read these bullets and everyone of them, I know there is
2 value in that, and I know there needs to be some work
3 done by the Commission to support the broader program,
4 but I want to push a bit on the \$4 million of funding
5 and whether it's today or some time before the report is
6 finalized, it would be helpful to hear from Pat or
7 whoever else would be appropriate to respond, you know,
8 is \$4 million really necessary for this piece of the
9 puzzle when there is so much demand for projects? You
10 know, virtually every sector that we're funding as a
11 program is over-subscribed, and significantly over-
12 subscribed, so a million dollars, two millions dollars,
13 is meaningful change, that's my thought and question, I
14 guess.

15 VICE CHAIR BOYD: I'll comment real quickly,
16 Tim, thank you for your comments. We'll look with the
17 staff at the latter question. Admittedly, while talking
18 about it earlier today, I began to have the same slight
19 qualms about in these lean times; I also know the amount
20 of flack we have taken as an organization. I want to go
21 to the pre-landfill. When I re-read everything
22 yesterday in preparation for today, I, too, stumbled
23 over that term and wondering whether we were as an
24 agency being consistent internally. So, this is an area
25 I had already marked for us to take a look at since, in

1 other quarters, we're spending a lot of political --
2 with a small "p" -- capital and taking incoming on the
3 subject, I just wondered if we mightn't at least be
4 consistent with our strong feelings as an agency for the
5 most part that this is an area that is deserving of
6 resolution with regard to our policies of state and the
7 possibilities for making significant energy progress, so
8 we'll definitely take a look at that. Tom was next.

9 MR. CARMICHAEL: Sorry, Tom, just to be clear,
10 Pat, or somebody at some point will be able to respond a
11 bit more about the analysis and technical assistance,
12 whether it's today or before the report is finalized?

13 VICE CHAIR BOYD: I didn't mean to cut off any
14 additional staff comment.

15 MR. PEREZ: Yes, we will. This is Pat Perez
16 again and, yes, we'll be happy to go back and look at
17 those numbers based on the needs, the timing of the
18 solicitations, to see if that money can be readjusted.

19 MR. CACKETTE: This is Tom Cackette from the
20 Air Resources Board. I wanted to thank the committee
21 for addressing our concern and adding back some funding
22 for hydrogen public fueling stations, and particularly
23 Commissioner Boyd, I think your comments today that
24 there's a possibility of adding the \$3 million that was
25 in the staff draft dedicated to buses to the \$5 million

1 that was added, for a total of \$8 million for public
2 fueling stations, goes a long way, in fact, addresses
3 our concerns and our comments from last time completely.
4 One comment on the actual drafting of the report that I
5 would make, though, that I think there is an important
6 principle here involved in that we need to match the
7 funding for infrastructure to the projected number of
8 vehicles that the vehicle manufacturers say they're
9 going to produce, and you've done that for electric
10 vehicles, and we've gone through several surveys on
11 hydrogen vehicles, and it appears that that's what led
12 to the increase of funding in the committee draft, but
13 it's not articulated at all in the report. And so I
14 think that's something that would make the report better
15 if we put some words in there that basically said how we
16 tried to match the funding for infrastructure to the
17 number of vehicles that are expected, there's tables in
18 the appendix, but it's a little bit obtuse for most
19 readers, including myself, as to exactly how that was
20 done.

21 VICE CHAIR BOYD: Let me, before calling on -
22 let me make an additional comment, that I didn't make
23 when I broached the hydrogen subject, and that is part
24 of the decision making that went on here is the
25 encouragement we've gotten from seeing new business

1 models develop in the fueling infrastructure arena,
2 particularly just in the last year, a model by which new
3 partners have picked up owning and operating fueling
4 stations, and who have shown that stations can be built
5 maybe more inexpensively and perhaps faster in the past,
6 and we certainly want to incent that, and also the
7 continuing discussions of the fact that government
8 incentives hopefully can be minimized in the not too
9 distant future, so we're going to continue not only in
10 working with you all, and all the stakeholders, on the
11 question of vehicles and needing to match
12 infrastructure, but just on the price of infrastructure,
13 so that maybe we can get a bigger bang for the buck, so
14 there's a little bit of all that thinking in where we
15 stand at this point in time. Now, Pat, I don't know if
16 you or the staff - and I'm the most guilty of not saying
17 who is talking every time, so this has been, and this
18 voice you need to identify with Jim Boyd. I just wrote
19 myself a note, "Say your name, Jim."

20 MR. PEREZ: Okay, thank you, Vice Chair Boyd.
21 I think I'll defer this over to Charles Smith, if he
22 wanted to add any additional insight and comments on
23 that, since Tobias is upstairs wrapping up a report that
24 has to go out this afternoon.

25 VICE CHAIR BOYD: And while Charles is going

1 to the microphone I want to thank Tom for his comments,
2 and the contribution of his agency to this continuing
3 dialogue.

4 MR. SMITH: So, to make sure I understand the
5 question correctly, Tom, you're wondering whether we -
6 or you're suggesting that we incorporate language that
7 links the vehicle population survey results to the
8 funding amount. We do that, in a sense, by looking at
9 the gaps in fueling supply and that's what Appendix B
10 tries to convey and I realize it is a little complex,
11 perhaps, but in general, though, the funding allocation
12 from the staff draft to committee draft didn't change as
13 a result of the gross 2015 vehicle population --
14 remember the 50,000 vehicle number - we had already
15 incorporated that supply of vehicles into the staff
16 draft. What we revised, going from staff draft to
17 committee draft, was the analysis of those numbers and
18 how the stations that we already have, and the station
19 that we anticipate having, fit in against that vehicle
20 population number. I don't know if that entirely
21 answers your question.

22 MR. CACKETTE: Well, it answers my question,
23 but even the basic principle that we should be matching
24 the infrastructure to the volume of anticipated vehicles
25 is relatively silent in the body of the report, it

1 doesn't articulate that principle, nor does it provide
2 any kind of verbal summary of the analysis that,
3 Charles, you just described, and I just think that, for
4 most readers, it would be helpful to them to see that
5 logic and it's there to some degree in some of the other
6 fuels, but not completely there, either. And so, for
7 future plans, in particular, I think it's a good
8 principle to articulate and use in future plans.

9 MR. SMITH: Okay, well, we'll certainly go
10 back and visit it in the Investment Plan.

11 VICE CHAIR BOYD: Justin, and then Howard, and
12 then Daniel, if I got the order right here.

13 MR. WARD: Okay, this is Justin Ward with
14 California Fuel Cell Partnership, and so I have a couple
15 comments. First off, I'd like to commend the CEC's
16 willingness to reevaluate the conclusions of the
17 previous Draft Investment Plan regarding hydrogen. I
18 think the current draft offers a better balance of what
19 is needed to really enable the commercialization of fuel
20 cell vehicles beginning in the 2015 timeframe, or even
21 earlier.

22 Moving forward, I'd like to offer the services
23 of the California Fuel Cell Partnership to assist the
24 CEC in any way that might be helpful maybe to better
25 define additional needs, make station locations more

1 transparent, regain some confidence in the auto numbers,
2 the vehicle numbers, etc. One of the tools I think that
3 would offer incredible value to the placements of
4 hydrogen stations is the U.C. Irvine Street Tool and I'm
5 excited to see the CEC's interest and commitment to use
6 that tool for hydrogen and other tools, and look forward
7 to working with the CEC and UCI to investigate new ways
8 to utilize that asset.

9 Lastly, as I was looking through some of my
10 notes this weekend, I noticed that I have not really
11 provided enough positive comments to the CEC for all the
12 hard work to develop and implement the Investment Plan
13 over the years. Reviewing the current plan, as well as
14 the previous ones, really shows the CEC's commitment to
15 the vision of AB 118 and I would again like to commend
16 the staff for your - and this really is - I'm not just
17 saying it, it's the truth, you guys are very short on
18 staff and it's a super human effort to really balance
19 all the comments and issues that you deal with from
20 around this table and outside of this table each day,
21 and likely more so, comments that you get on days of
22 committee meeting days.

23 To wrap up, the California Fuel Cell
24 Partnership looks forward to the growth of hydrogen
25 infrastructure, which has really been enabled by the

1 CEC's investments, and I openly offer all the services
2 and resources of the California Fuel Cell Partnership
3 moving forward, please do not hesitate to contact us at
4 any time.

5 VICE CHAIR BOYD: Thank you. I guess, Howard.

6 MR. LEVENSON: Thank you, Vice Chair Boyd.
7 Howard Levenson with Cal Recycle. And I want to
8 reiterate that comment that Justin just made as a sister
9 agency with constrained staff and resources, this is a
10 super job that you guys have done, and I really
11 appreciate the work you've put into it. Substantively,
12 I want to address Tim's comment about the pre-landfill
13 biomethane and I certainly understand the point that
14 he's made about the need for continued work on landfill
15 gas to energy and, actually, Chuck White from Waste
16 Management approached me about the same issue prior to
17 the meeting. I think previous plans have supported both
18 landfill and pre-landfill biomethane projects, I think a
19 little bit more for landfill gas and clearly more work
20 is needed on that, but I'd like to argue for keeping the
21 allocation as it is described in the plan right now, for
22 a couple of reasons, one is there are some consistencies
23 with discussions that are going on in other forums, for
24 example, the Legislature and looking at raising the
25 landfill diversion rate and some current proposed bills.

1 Also, the discussions that we've had with the
2 Interagency Bioenergy Working Group, which has spawned
3 other discussions on some technologies, but certainly on
4 technologies such as anaerobic digestion, there's been a
5 strong support for the need to continue moving in that
6 direction, to handle some of the biomass waste that are
7 going to continue to be generated. Certainly, the plan
8 as it is written right now, that particular line
9 supports Cal Recycle's own strategic directives, and
10 then, more on a bureaucratic mode, I think just if we
11 are going to move in the direction of having the ability
12 to fund a project, if there weren't enough anaerobic or
13 pre-landfill biomethane projects, that's pretty
14 difficult to structure in a solicitation, itself, just
15 to handle that. So, I'd like to suggest keeping it as
16 is, or perhaps revisiting this issue in the next plan,
17 which we're going to start working on in a couple of
18 months and kind of see where we are with the
19 solicitations that are out and the one that is coming
20 out on this.

21 VICE CHAIR BOYD: Thanks. I, like you,
22 understand your message. Dan.

23 MR. EMMETT: Thanks. So I'll follow kind of
24 directly on that because I was going to echo Tim's
25 comments about this topic, coming at it more from the

1 hydrogen point of view because one of the things I want
2 to ask about is renewable hydrogen, in particular. I
3 think staff obviously did a tremendous job and I think
4 it's exactly the way this work needs to happen is
5 actually bringing the stakeholders together, Air
6 Products, Linde, OEM's, Fuel Cell Partnership, to really
7 hash out, the little path forward and it's a difficult
8 challenge. The one area where I felt like there is
9 still a bit of a gap, for me, and I think probably
10 you've done this analysis and you've already thought it
11 through, but it's just not transparent to me reading the
12 plan, is in light of 1505, which is the Renewable
13 Hydrogen requirement, you know, how we are meeting the
14 renewable requirement not only for these current
15 solicitations, but the ones that are upcoming. It seems
16 to heavily, sort of reading between the lines, rely on
17 biomethane, and so this category becomes even more
18 important when you look at the fact that we're not
19 talking just biomethane for biomethane's sake, but also
20 for hydrogen as a feedstock for renewable hydrogen.
21 Again, I think we need to be looking at sort of as many
22 sources as we can for this source of feedstock for
23 hydrogen fuel, and I would sort of agree with Tim that
24 we shouldn't limit ourselves only to the pre-landfill
25 question. So, with that, I'll ask the question of

1 Commissioners and staff, what was the analysis that was
2 done in terms of looking at renewable hydrogen? And the
3 reason I think this is so important, because I think
4 you've done such a great job in actually structuring
5 this in a way that drives down the cost of these
6 hydrogen stations and they're being deployed more
7 quickly, but to me, in my mind, that translates -- the
8 flip side of that is it's going to be harder and harder
9 for renewable hydrogen, which is inherently more of a
10 challenge, to play ball in that framework. So, is there
11 something set up in terms of a preferential selection?
12 I know in ARB's solicitations, there was an extra
13 credit, or more points for renewable content in a
14 station. Or is there more money available to renewable
15 hydrogen station? Or, is there -- one of the
16 recommendations we made in our written comments and that
17 I made in the last advisor committee meeting was that,
18 you know, is there not a need to look at incentivizing
19 centralized production of renewable hydrogen? And I
20 think this is the long term solution, but obviously I'd
21 like to know sort of your thinking about this and the
22 analysis that was done to address renewables. Thanks.

23 MR. MCKINNEY: Jim McKinney here. Thanks for
24 your questions, Dan, that is a good question. So, I
25 think, as is evident in this committee draft, your

1 emphasis in hydrogen funding has been to the retail
2 station outlets. Staff's interpretation of 1505 is that
3 it is a regulatory requirement, so those producers
4 wanting to work in that market or play in that market,
5 and you have a regulatory responsibility, but also, as
6 you say, simultaneously we're putting a lot of money
7 into trying to get RNG into the networks. There are
8 some serious regulatory issues on gas quality, you know,
9 trucking is an option, but it does drive up the cost, as
10 you say. I'm not -- that's the extent of staff's work
11 on this. Again, we're really trying to get production
12 going in a very general sense, and we are welcome to
13 have those discussions with the large gas producers to
14 see what type of support or incentives might be needed.

15 MR. EMMETT: Are you finding that, in the
16 current solicitations, that they're meeting the
17 requirement, that they're able to meet the requirement?
18 Because credits, there isn't currently really a credit
19 market, it's kind of ad hoc at best. And so, is it
20 credits? Or are they actually deploying stations that
21 are meeting the statute?

22 MR. WARD: Peter Ward. We are requiring that
23 they meet the 33 percent renewable hydrogen requirement
24 for any stations that are funded with public funding,
25 currently. In addition, our last solicitation added

1 additional incentive money if they would exceed the 33
2 percent renewable content, and that was basically
3 designed to foster increased hydrogen development from
4 renewable sources.

5 MR. EMMETT: Thank you.

6 VICE CHAIR BOYD: Bonnie.

7 MS. HOLMES-GEN: This is Bonnie Holmes-Gen of
8 American Lung Association in California, and I am also
9 very appreciative of all the work, as I mentioned
10 earlier, of the staff, I know I've said it a couple
11 times, I really do appreciate the tremendous amount of
12 work that has gone in to getting all of this information
13 together at the same time you are pushing out the
14 solicitations and keeping the money going forward and I
15 really appreciate that. I do want to join the chorus in
16 thanking staff and Commissioners for the change in the
17 hydrogen funding and the increased amounts there, I
18 think that is merited and important, and I also agree
19 that it would be very helpful to include some more of
20 the detail on the expected increase in volumes in
21 hydrogen vehicles in those latest numbers, and why and
22 how this increase is key to the increase in volumes of
23 vehicles expected. So, I would agree with that comment.
24 And anything we can do, and it sounds from your
25 comments, Peter, you are doing something already, but

1 anything we can do to make sure that the funding is
2 going toward renewable hydrogen, that is meeting those
3 renewable requirements, and you know, that's always been
4 part of our concern is to make sure the funding is going
5 towards the cleanest alternative fuels, so the
6 incentives for renewable hydrogen would fit into that.

7 And I wanted to ask a question on the advanced
8 diesel substitutes, I wanted to get a little
9 clarification about that category. There is discussion
10 of biodiesel, there is a discussion of renewable diesel,
11 and I'm not completely clear what is intended to be
12 funded in that category, and if biodiesel is eligible
13 for funding, or if it is focused on the renewable
14 diesel, so I would like to get a better sense of what is
15 included in there. And then I also have another
16 question on ethanol.

17 VICE CHAIR BOYD: Staff, want to take a crack
18 at the diesel question? Rather than me just rambling on
19 about it?

20 MS. HOLMES-GEN: I guess I'm wondering, 1)
21 when it says "advanced diesel substitute production," is
22 that a key word for us? What are the specific
23 technologies that are being discussed? Or is it broad?
24 Are you considering all of these different -- biodiesel
25 and other diesel substitutes?

1 MR. SMITH: This is Charles Smith. The
2 language is intended to cover the broad both biodiesel
3 and renewable diesel. Obviously, our solicitation would
4 include GHG reduction as criteria, and so that probably
5 would be one of the more significant parameters, rather
6 than biodiesel vs. renewable diesel.

7 MS. HOLMES-GEN: Okay, well, I was curious
8 about that partly because, obviously as you pointed out,
9 there are tremendous differences in the GHG reduction
10 that can be achieved, and also there are continuing air
11 quality challenges with biodiesel, and I know you're
12 mindful of that, but I'm wondering if -- I didn't see
13 specific language, I'm sure there is, but any biodiesel
14 projects that would be funded, it would certainly be
15 contingent upon the NO_x mitigations being employed.

16 MR. MCKINNEY: Jim McKinney here. Bonnie, if
17 I could ask you, does American Lung Association have a
18 preference or a recommendation in this funding area? I
19 mean, we can clarify the staff intent and work with the
20 committee on the committee intent, but if your
21 organization does have a recommendation, that would be
22 helpful to us.

23 MS. HOLMES-GEN: I think the main concern is
24 just making sure that we're funding fuels that do have
25 the most -- that are not causing air quality degradation

1 or hampering our effort to move forward in achieving air
2 quality goals, and obviously also achieving the greatest
3 GHG reduction, but I'm just noting that there still is
4 discussion ongoing on the NO_x increase on biodiesel and
5 additional ARB activity, and I just wanted to make sure
6 that there's a tie-in to that and that any -- especially
7 any mitigation strategies that are advised by ARB, that
8 those would be employed as part of the package in order
9 to get funding.

10 And then my last question I wanted to ask
11 about the ethanol stations, and first of all, I
12 appreciate you -- I wanted to acknowledge the long
13 discussion by Commissioner Boyd on the Producer
14 Incentive Program and I think that's a good decision. I
15 know it's hard for you, but I think it's a good decision
16 to leave that out of this. I did want to ask -

17 VICE CHAIR BOYD: Do you want to tell us why
18 you think it's a good decision? Or shall we just let it
19 lay here?

20 MS. HOLMES-GEN: I think that it is best to
21 continue the focus on technologies that clearly are the
22 next generation technologies that will get the greatest
23 GHG and air quality benefits. And I think that - I
24 understand that you've made a lot of progress in the
25 requirements and the constraints on that program to

1 require transition from the convention to the next
2 generation technologies, but I think it makes a better
3 case for the program if all the funding is clearly
4 focused on those next generation technologies, and it
5 doesn't look like we're moving backwards.

6 VICE CHAIR BOYD: Well, I appreciate that
7 point of view. The problem is, for me, as an old air
8 quality and greenhouse gas person, if you get a benefit
9 to both out of making a little bit in California, until
10 there's a national resolution of how much ethanol is
11 enough, and how much corn-based ethanol, or energy crop
12 ethanol is enough, then we're going to -- if we don't
13 make it here, we're going to take the equivalent amount
14 from the Midwest, which is to the detriment of the
15 planet, let's just say. In any event, it's a real
16 sticky wicket issue, as we all know. I'll stop there.

17 MS. HOLMES-GEN: I hear that. One question --

18 MR. WARD: I'd also like to -- in your written
19 comments that you'll provide, I'd really like to hear a
20 specific reference to those specific technologies you're
21 calling the second generation, and where their
22 commercial status is right now.

23 MS. HOLMES-GEN: And I guess my last question,
24 on the E85 stations, and I think that that's an
25 important part of this mix, but I just would like to

1 understand how the connection is being made for those
2 individuals that have these E85 vehicles since there
3 aren't that many stations right now, how are we getting
4 them to these stations? How are they being driven to
5 these stations? Is it a matter of just putting them in
6 the areas where there's a higher concentration of the
7 vehicles? And is someone out there marketing to these
8 folks? "Hey, now you have some new options here?"

9 MR. WARD: Absolutely, they are. You may have
10 heard of Propel Fuels as an Awardee of our program and
11 as an Awardee with the DGS program, as well. They have
12 an excellent marketing program and they have pulled the
13 data on where all the FFEs are, and are putting these
14 stations where those FFEs are just to make sure they can
15 assure the best growth market as they develop stations.
16 So, I would encourage you to look into Propel Fuels,
17 they do have an excellent marketing program.

18 MS. HOLMES-GEN: Great, thank you for that
19 assurance.

20 MS. TUTT: Thank you, Commissioner. Eileen
21 Tutt with the California Electric Transportation
22 Coalition. I want to thank the staff for increasing and
23 the Commissioners for increasing the flexibility in the
24 electric vehicle section of this document because I
25 think that's very important given the nature of the

1 market right now, which is pretty unpredictable. I also
2 want to say thank you for the residential - the
3 recognition of the importance of residential charging,
4 and kind of link it a little bit to your local
5 government funding because I think those are two very
6 important aspects of this report, and I just wanted you
7 to know that, in some cases, local governments, for
8 example, L.A., are offering incentives to people who buy
9 PEVs in their territories for home recharging, so there
10 may be, as you consider how you're going to allocate
11 this money, it may be that some of the local governments
12 might get money for local residential charging rebates,
13 which wasn't something I'd ever considered because I
14 just assumed it would link up to the Air Board's Vehicle
15 Rebate Program, since the population is probably the
16 same.

17 Then, I also wanted to suggest -- and, again,
18 I really appreciate the staff's working with
19 stakeholders around this corridor issue because I know
20 that that's often very politically attractive, this idea
21 of a corridor, but in the case of electric vehicles, it
22 seemed not to pan out quite the same way and I really
23 appreciate the fact that this report took that into
24 account in the Commissioners' version. So, anyway,
25 mostly positive and I don't think I have to backtrack

1 because I'm sort of new here, but I've always - since
2 I've been here, I really appreciated the openness of the
3 staff to consider our Advisory Committee
4 recommendations.

5 VICE CHAIR BOYD: Thank you, Eileen. I think
6 you probably have perceived our almost bias toward home
7 charging the last couple years because it facilitates,
8 we think, off-peak charging which addresses the concerns
9 of some about having enough generation out there to meet
10 the need, although we have seen for quite some time the
11 build-up, albeit impressive, it's still moderately slow,
12 and the experience of other areas of the world in home
13 recharging seems to dominate. We all have to offset the
14 political pressure to get more opportunity charging out
15 there, but - and your membership of utilities have
16 voiced of late, and I guess we will continue to discuss
17 within the context of the collaborative, the concern
18 they're beginning to express a little more publicly
19 about the amount of home recharging contributing to
20 their dilemma, or their perceived dilemma, of early
21 adopters who tend to cluster for income purposes and
22 discretionary dollars to spend on this kind of
23 technology, and their ability to keep up with those
24 transformers in clusters that need to be changed out to
25 facilitate the greater loads. So we look to your -- the

1 collaborative of which you are a key not only member,
2 but facilitator of, to keep that question alive and keep
3 providing the necessary feedback to all within the
4 Collaborative and this agency as it tries to decide
5 where to direct money. Right now, we are biased towards
6 home recharging and your point is a good one, trying to
7 team up with other agencies who are also beginning to
8 contribute to that part of the infrastructure, rather
9 than the vehicles. Anyway, thank you for your positive
10 comments. Does staff have anything more to add? I'll
11 get Jack, I just want on that subject -- I tend to
12 dominate the answering and I'm supposed to sit here like
13 a sponge and soak it all up. It's hard to keep me
14 quiet. Okay, Jack.

15 MR. MICHAEL: Jack Michael, Recreational
16 Boaters. Thank you, Chairman Boyd. I would like to
17 also thank the staff. I think they're doing an
18 excellent job in going through this process and putting
19 these documents together and responding to concerns, and
20 I would like to express appreciation for recognizing the
21 comments that I made at the last meeting, and making at
22 least some provision in language in here to consider the
23 effect that alternative fuels may have on marine engines
24 and other vehicles. And responding back to Tim's
25 comments that the \$4 million in the plan for technical

1 assistance and analysis may be better used for
2 furthering other existing technologies, I want to point
3 out that I would hope the committee would support some
4 funding there so that we can be more certain that some
5 of these alternative fuels don't create other problems,
6 particularly in marine situations where there could be
7 some other factors unrelated to fuels that we don't want
8 to have to deal with. So, I appreciate the staff's
9 effort, and I hope Tim would understand that some of
10 that money is important to other purposes, as well.

11 VICE CHAIR BOYD: Thank you, Jack. This is
12 Jim Boyd. I'd like to ask you a question as a long time
13 former boater. The use of diesel fuel in marine engines
14 has been quite extensive for a long long time, and I
15 remember reading many an article about the hearty souls
16 of yesteryear in the boating area who were trying to be
17 green and use biodiesel, and the continuing problems
18 that some had. I haven't read about it that much, is
19 that still a concern, just like ethanol remains a
20 concern with regard to its materials and compatibility
21 and those issues?

22 MR. MICHAEL: Yes, it is.

23 VICE CHAIR BOYD: Okay, thanks.

24 MR. MICHAEL: And a further comment. I think
25 part of the issue here is that, in the case of some of

1 these alternatives, the environment within which marine
2 vessels exist and operate are far different than a lot
3 of other situations, particularly other vehicles, on
4 land vehicles, for two reasons, 1) the marine
5 environment, there is a lot more moisture in the marine
6 environment and, as I expressed before, particularly
7 with ethanol, that increased moisture combining in the
8 ethanol creates an acidic situation, which causes a lot
9 of damage. Similar with the other - with the biodiesel
10 problem. But, beyond that, the other thing that impacts
11 that is often marine vessels and engines sit in that
12 environment without being used over long periods of
13 time. Some of these fuels are very effective, like in
14 the commercial vessels that are moving constantly, but a
15 lot of recreational vessels may sit for weeks at a time
16 without being used, and that's where some of the other
17 problems come by. But there's been really no ability to
18 test, or no funding available to do the sort of testing
19 in that environment that would show us what the real
20 problems are, we just know what the results of these
21 things are, but we don't know exactly what the
22 alternatives might be, or how to counter it.

23 VICE CHAIR BOYD: Okay, thank you. How about
24 our members on the phone? Any questions or comments
25 you'd like to make?

1 MR. COLEMAN: Brooke Coleman here. I have a
2 couple comments.

3 VICE CHAIR BOYD: Go ahead, Brooke.

4 MR. COLEMAN: All right. A couple of things.
5 First, starting with cellulosic, there are a couple - I
6 think the staff know that, as Executive Director of New
7 Fuels Alliance, I'm also running something called the
8 Advanced Ethanol Council, and I want to work with staff
9 on shoring up some of the language with regard to the
10 cellulosic parts of the report. There is a reference to
11 the commercial viability of cellulosic technology, which
12 I think needs to be differentiated from -- put it this
13 way, the technology is proven and there is a difference
14 between proving the technology and building plants in
15 this country when it is as expensive as it is build
16 plants, so I just want to be careful not to say that the
17 technology is not commercially viable when these folks
18 are producing commercially viable fuel, smaller scale.
19 So I want to work with you on that.

20 On E85, Commissioner, I heard you describe the
21 \$1 million reduction, which is a 20 percent E85
22 reduction, that's a slight reduction, I would like to
23 humbly take issue with that, you know, a 20 percent
24 reduction in E85 is discouraging, especially in the
25 context of the slide, I don't know what slide it is,

1 maybe a third of the way back into the full
2 presentation, which made clear that E85 has exceeded
3 expectations and, then, one bullet down, it says "we've
4 reduced our funding for it." To me, this program is
5 about bang for the buck, I've heard your staff, I've
6 heard you, Commissioner Boyd, say it on several
7 occasions, and I think you're getting bang for the buck
8 on the E85 side, so it's curious to me that biofuels
9 infrastructure continues to be the source of increased
10 funding for hydrogen late stage.

11 With regard to the infrastructure issue, in
12 general, in the context of building next generation
13 ethanol fuels, I think -- I don't know whether \$8
14 million for hydrogen is too high, too low, whatever;
15 what I do seem to see over and over again is a focus on
16 building the production for advanced cellulosic ethanol,
17 which is great and we appreciate staff's effort on that
18 and the funding allocations for that, but I want to also
19 make it clear that infrastructure and increasing the
20 demand for ethanol is absolutely critical to the
21 development of these next generation technologies and I
22 would go so far as to say that they don't happen without
23 it when our investors look out five, six years, and
24 don't see demand for ethanol because either the market
25 is saturated with corn ethanol, or because the

1 infrastructure hasn't been developed or there aren't
2 enough Propels on this planet to make sure that there's
3 going to be demand and the investors run away from the
4 sector, and you will be -- you will have conventional
5 ethanol moving forward. And so, you know, aside from
6 the numbers, I'd like to see greater discussion on the
7 importance of developing infrastructure for next
8 generation because I think this idea that you can be for
9 next generation biofuels while standing on the neck of
10 corn ethanol is ridiculous from a business perspective,
11 it doesn't make sense from -- it certainly doesn't make
12 sense from a political perspective, but it makes no
13 sense from a business perspective. We've got a biofuel
14 using an existing corn ethanol facility in California as
15 a platform to do cellulosic ethanol, we have algae folks
16 using one of the 200 biorefineries that have been built
17 in this country over the last 25 or so years, has a
18 platform to develop algae ethanol, algae biodiesel, and
19 algae biometh, so the synergies are there. And I think
20 we need to think about that in terms of market
21 development.

22 Finally, on the CPIP Program, I'm not going to
23 sit here and make an argument for it, but I think we
24 have to be careful about rewarding bad behavior. I
25 understand, Commissioner Boyd, that being an advocate

1 for corn ethanol, which I have been in the past, is a
2 dicey prospect, and it can keep you awake at night; that
3 said, you know, I think going to the Capitol and
4 exposing 118 with personal concerns about personal fuel
5 preferences is risky for the program, it's not good
6 behavior, and I think we have to be careful about
7 perpetuating a situation or going to the Legislature and
8 making misguided arguments is rewarded in this context
9 because applied to some of the other fuels that are also
10 not perfect in this list, it could be the ruin of the
11 118 program, and I think some of these programs are
12 absolutely -- I mean, some of the arguments are really
13 silly and I think we just need to push back on them.
14 And in the context of the upcoming workshop, between
15 ethanol and grain prices, etc., I hope that the folks
16 that are interested in doing that and organizing it
17 focus really closely on what amounts to a very effective
18 case study between 2008 and 2011 in which you had
19 ethanol oil prices both increasing and grain prices
20 increasing, and then in 2009-2010, you had a noticeable
21 de-linking of the correlation between ethanol and grain
22 prices as oil prices and grain prices both plummeted,
23 and you can't have causation without correlation. So, I
24 hope that that workshop will finally put the lunacy with
25 regard to some of these arguments aside. And I think

1 misguided stuff has really got to be put -- it should
2 not be used to eliminate programs whether you like them
3 or not.

4 So, finally, and to close, I appreciate that
5 there is robust support in here for advanced cellulosic
6 ethanol and gasoline substitutes, we appreciate that, we
7 have a couple extra comments with regard to MSW, and we
8 appreciate that very much. I have one quick question.
9 Is MSW part of the advanced cellulosic ethanol gasoline
10 substitute production section? Is that explicitly
11 eligible?

12 MR. MCKINNEY: Jim McKinney here. That was
13 primarily intended for renewable natural gas production,
14 unless Charles has another clarifying point or Pete.

15 MR. COLEMAN: I mean as a feedstock for
16 advanced ethanol.

17 MR. SMITH: Brooke, this is Charles. I want
18 to make sure I understand your question. Are you asking
19 whether projects that utilize municipal solid waste
20 might be eligible under the advanced cellulosic
21 ethanol/gasoline substitute's production allocation? Is
22 that your question?

23 MR. COLEMAN: In the event they are producing
24 ethanol, yes.

25 MR. SMITH: Okay, yeah, we are interested in

1 encouraging waste-based resources and that would
2 certainly apply.

3 MR. COLEMAN: Okay. Thank you.

4 VICE CHAIR BOYD: John Shears has a comment.

5 MR. SHEARS: Yeah, this is John Shears.
6 Energy Commission, through its program, has already
7 funded at least one project developer, Blue Fire
8 Ethanol, to recover cellulosic fiber from municipal
9 solid waste for a project in Southern California, is my
10 recollection.

11 VICE CHAIR BOYD: They rejected our financial
12 support and then they moved to Florida, besides.

13 MR. SHEARS: Still, however.

14 MR. COLEMAN: Yeah, I'm aware of the
15 relationship, John, but I was just hoping for ongoing
16 eligibility.

17 VICE CHAIR BOYD: I think you got a positive
18 response on that.

19 MR. COLEMAN: Thanks. Thanks, Commissioner.

20 VICE CHAIR BOYD: Thank you, Brooke. Anyone
21 else out there on WebEx, members of the Committee want
22 to question or comment? Hearing none, Bonnie, do you
23 have another comment or is that leftover from last time?
24 Okay. Oh, go ahead, Brian.

25 MR. MCMAHON: This is Brian McMahon,

1 Employment Training Panel. Very briefly, I'd just like
2 to thank the Advisory Committee's continued investment
3 in workforce and thank CEC staff that worked very
4 closely with the Employment Training Panel and vetting
5 curriculum and doing joint marketing. And I think one
6 direction that the Employment Training Panel is going in
7 that is probably important is to work closely with CEC
8 staff in looking at these other categories of investment
9 in determining whether or not there is a workforce
10 component, so that we're matching up the broad-based
11 investment categories.

12 VICE CHAIR BOYD: I think that's a good point.
13 I, too, have thought sometimes in talking to people, you
14 know, how do we really make the links? So, one thing,
15 we'll continue to work on that. Dan, you've got your
16 hand up.

17 MR. EMMETT: Just really quickly, I also
18 wanted to say thanks again very much and make an offer
19 that we'll commit Energy Independence Now staff to work
20 with CEC staff and stakeholders on trying to sort of
21 look at this question of renewable hydrogen, moving
22 forward, and particularly because 1505 is interesting
23 because there's this pre-compliance period and then
24 there's a trigger, and so there is this phased approach,
25 and so there is an opportunity and I think need for the

1 state to play a role in ensuring we get there and that
2 this doesn't somehow result in a roadblock or a
3 stumbling block on a path to sort of wide adoption of
4 hydrogen and fuel cell vehicles. So, we'll work with
5 staff as we're doing some thinking about this and would
6 like to sort of have a back and forth if that's
7 possible. Thanks.

8 VICE CHAIR BOYD: John.

9 MR. SHEARS: Yeah, I should mention, again, I
10 also apologize for not having anything written to
11 submit, but I had a draft started and you're probably
12 seen me typing away as we go, editorial stuff I'll leave
13 for the comments. I just thought it might be useful to
14 ask - I think it's Table 7 and 8, the pages escape me
15 right now, it's in the EV section, there doesn't appear
16 to be like a consistent trend in the numbers in terms of
17 the deployment of BEVs and plug-in hybrids, and I just
18 wanted to ask, I mean, part of it is while we have
19 everyone so we can all sort of have consciousness
20 raising about it here, but it also probably should be
21 elaborated in the text of the report as to what exactly
22 is the explanation for that. I'm not sure is it's an
23 artifact of the survey and the voluntary nature of the
24 responses to the survey, or if that's revealing
25 something strategic about the auto manufacturer's plans

1 and their deployment. Yes, I wasn't sure if Leslie was
2 here, so I don't know if there is - if you want to make
3 a comment on that? But it might also be useful to have
4 a little bit of an elaboration in a next draft on that.

5 MS. BAROODY: Thank you, John. I actually
6 expected that question to come out, so, yeah, Table 7
7 and 8, these are the results of the automaker survey
8 that we did in conjunction with ARB, and that was a
9 confidential survey, so we never saw the detailed
10 results, we didn't know which automakers were responding
11 and we didn't know which ones were responding in each
12 year, so the reason why the numbers are not increasing,
13 or don't seem to be continuous is because, for each
14 year, the data is discrete, so you might have three
15 automakers answering for three years in a row, and then
16 none for the next, there's just no way of knowing which
17 automakers are answering in each year.

18 MR. SHEARS: So essentially it's an artifact
19 of the survey?

20 MS. BAROODY: Right.

21 MR. SHEARS: At first blush.

22 COMMISSIONER PETERMAN: Just one follow-up
23 question. This is Commissioner Peterman, Leslie. So, I
24 appreciate these numbers are somewhat of an artifact of
25 the survey. Do you have any sense, however, in terms of

1 what type of trend we should be expecting? Should it
2 just be increasing over time?

3 MS. BAROODY: Yes, the trend is definitely
4 increasing.

5 COMMISSIONER PETERMAN: Okay, and you don't
6 see it plateauing for any reason during these years?

7 MS. BAROODY: No, not at all. And, in fact,
8 none of the automakers that responded showed any decline
9 in the data that they provided.

10 COMMISSIONER PETERMAN: Okay, great. Thanks.

11 MS. BAROODY: You're welcome.

12 COMMISSIONER PETERMAN: Commissioner Boyd had
13 to step out, so I get to take over. Any additional
14 comments from anyone on the Advisory Group? Anyone on
15 the phone? Well, considering, then, that we're doing so
16 well on time, we're going to move forward to the public
17 comment. And I'm not exactly sure how this part works,
18 but Charles is going to take over. If you would like to
19 comment and have not filled out a blue card, please see
20 --

21 MR. SMITH: Well, I think ideally we would
22 like to stick to the blue card system just so we can
23 keep track of who has submitted their comments. These
24 blue cards are available in the entryway, they request
25 your name, title, who you're representing, and if you

1 don't mind, a brief summary of what you would like to
2 discuss. If you can fill them out and hand them to
3 myself or Joanne, who is handing out the materials
4 provided by our first speaker, who is Mike Ferry from
5 California Center for Sustainable Energy.

6 COMMISSIONER PETERMAN: And we're also asking
7 all public comment to be kept to three minutes,
8 although, again, since we're doing well on time, if it
9 extends an extra minute, we won't stop you.

10 MR. FERRY: All right, good morning everyone.
11 Good morning, Commissioners and Advisory Committee
12 members. Thank you for this opportunity for public
13 comment. My name is Mike Ferry and I am the Manager of
14 Transportation Programs at the California Center for
15 Sustainable Energy located in San Diego. I am also the
16 U.S. Department of Energy Clean Cities Coordinator for
17 the San Diego Region. In these roles, I oversee the
18 administration of both statewide and regional vehicle
19 incentive programs, including ARB's Clean Vehicle Rebate
20 Project, as well as a diverse set of educational and
21 outreach efforts directed toward both individual
22 consumers and fleet managers focused on sustainable
23 transportation solutions.

24 Over the past years, the Center for
25 Sustainable Energy and Clean Cities, in coordination

1 with Regional partners such as San Diego Association of
2 Governments, the San Diego County Air Pollution Control
3 District, and local Chambers of Commerce, have worked
4 collectively toward the goal of accelerating the
5 adoption of alternative fuel and advance technology
6 vehicles into the region's medium- and heavy-duty
7 fleets. Most notably, over the past six months, the
8 Center for Sustainable Energy and Clean Cities have been
9 working with fleets in the Otay Mesa Region in
10 Southeastern San Diego. Otay Mesa is the largest
11 commercial land port in California, and boasts a diverse
12 fleet of medium- and heavy-duty trucks that number some
13 1,500 vehicles, with a growing number of dual plated
14 trucks that not only provide goods movement across the
15 California Mexican border, but increasingly ship goods
16 to destinations north along the I-5 and I-15 corridors.
17 This regional fleet in Southeast San Diego, as well as
18 other loosely aggregated regional fleets throughout
19 California, are currently struggling under a number of
20 significant pressures and challenges, most notably two
21 of these intense challenges are sustained high prices
22 for diesel fuel, and the high cost of clean diesel
23 technology required to meet increasingly stringent
24 criteria air pollutant regulations. However, at the
25 same time that cost for operating diesel fleets has

1 steadily increased, the alternative fuel and advanced
2 technology vehicle industries have greatly matured,
3 primarily in the natural gas sector, but also in the
4 early commercialization of hybrid electric and electric
5 vehicle technologies, all of which can provide on an
6 increasingly market competitive playing field viable
7 alternatives to the standard decision for the vast
8 majority of fleet managers to continue along the diesel
9 only pathway.

10 In working with fleet managers in the Otay
11 Mesa Region and elsewhere, from large 50 plus vehicle
12 fleets to small fleets of three trucks or less, we have
13 identified a number of adoption barriers to alternative
14 fuel and advanced technology vehicles, including a lack
15 of access to competitive fueling infrastructure, locally
16 and regionally, especially for small to medium size
17 fleets involved in goods movement, and confusion over
18 the patchwork of state and regional incentives
19 addressing the incremental cost of alternative fuel
20 vehicles and how these incentives relate to regulatory
21 mandates for pollutant emission reductions.
22 Apprehension about reliability and operating costs of
23 non-diesel technologies, including maintenance, parts,
24 servicing, and vehicle down time during repairs, and
25 finally, a lack of sustained coordinated outreach to

1 fleet managers of all sizes, specifically funding driven
2 solicitation and outreach efforts are often not
3 sufficient. Incentive cycles do not always coincide
4 with fleet purchase decisions, and fleets do not have a
5 single source of information to learn about multiple
6 funding opportunities.

7 In order to overcome these barriers, each must
8 be addressed in a sustained and coordinated fashion,
9 which we feel can be accomplished through multi-
10 stakeholder, regionally targeted planning efforts.
11 Therefore, the Center for Sustainable Energy and San
12 Diego Clean Cities strongly encourage the funding of
13 regional planning initiatives for medium- and heavy-duty
14 fleets in order to facilitate the adoption of
15 alternative fuel and advanced technology vehicles.
16 These regional planning initiatives would operate in a
17 fashion similar to existing and proposed regional
18 planning programs for light-duty plug-in vehicle
19 adoption. The objectives of regional planning
20 initiatives for medium- and heavy-duty fleets would be
21 the development of technology and vendor neutral, fleet
22 specific assessment planning and implementation
23 programs, optimized leveraging of existing and future
24 vehicle incentives, and infrastructure investments to
25 meet targeted environmental metrics and adoption goals,

1 and the integration of local planning with broader
2 regions and with statewide efforts to accelerate
3 technology deployment and reduced greenhouse gas
4 emissions and criteria air pollutants.

5 I've taken the liberty of distributing a
6 summary of what we feel are the primary barriers,
7 opportunities, and solutions that well coordinated,
8 regionally targeted planning initiatives could
9 successfully address and overcome in order to facilitate
10 the penetration of alternative fuel and advanced
11 technology vehicles in California's medium- and heavy-
12 duty fleets. Thank you.

13 VICE CHAIR BOYD: Thank you. Yes, Mr.
14 McKinney would like to make a comment.

15 MR. MCKINNEY: Thank you, Vice Chair Boyd. I
16 just wanted to comment from the staff perspective that
17 staff has met with the Center for Sustainable Energy.
18 We're interested in the concept that they're putting
19 forth today and I think a shorthand way to think of it
20 is a complimentary regional planning effort that is
21 similar to what we're doing on PEV readiness, or EV
22 readiness, around the state, so trying to get better
23 coordination in the natural gas side between the fuel
24 producers, retail station, developers, and major fleet
25 operators and the OEMs, something that staff would like

1 to continue exploring.

2 VICE CHAIR BOYD: Okay, that's good.

3 Unfortunately, my memory recalls we started talking
4 about doing something about this at the very beginning
5 of this program and we've not accomplished that yet, so
6 it's not one of our highlights at the moment. But,
7 anyway, I appreciate the testimony from the gentleman,
8 it had nothing to do with him, my comments that were
9 being made. All right, who is next?

10 MR. SMITH: The next speaker is Chuck White,
11 Waste Management.

12 MR. WHITE: Thank you very much. Chuck White
13 with Waste Management. I echo many other folks that
14 have spoken in favor of the report and I think it's well
15 balanced. I think we would prefer to see much more
16 allocation towards natural gas and biogas, but given all
17 your competing demands, I'm not going to go there today.

18 But two areas that I would like to comment on,
19 one is on gasoline substitutes and biomethane. And
20 first I'll take the biomethane issue that was discussed
21 a little bit with Tim Carmichael and Howard Levenson and
22 others. The actual - it's a bit of a problem in the
23 sense that the actual body of the report is not
24 consistent with your funding allocation table, Table 38.
25 Table 38, as others have pointed out, says biomethane

1 pre-landfill biomethane production, while the actual
2 text of that same table in the body of the report says
3 biomethane production and support, it does make
4 reference in the text to focusing on projects that use a
5 variety of pre-landfill waste materials as a feedstock,
6 but it doesn't seem to apply, it's meant to be
7 exclusively to pre-landfill materials. And I would
8 suggest, in fact, I will suggest when I submit comments
9 by your deadline on the 7th, that I understand the
10 desirability of getting pre-landfill waste and materials
11 to produce biomethane, but you shouldn't do that to the
12 exclusion of other projects that have the potential of
13 very cost-effectively producing biomethane from other
14 sources and also have a very low carbon intensity, so
15 while I would urge you to continue with an emphasis on
16 pre-landfill projects such as food waste diversion to
17 POTWs, don't totally close the door on other projects
18 that can demonstrate very low carbon intensity and can
19 demonstrate a very cost-effective way to produce the
20 fuel that we need here in California to meet the goals
21 of AB 118. So, I'll provide written comments to you to
22 that effect and I'm hoping that you will keep a broad
23 consideration of this issue.

24 Then, secondly, is the gasoline substitutes
25 and I really appreciate the change that has been made in

1 your summary table, Table 38 again, to talk about
2 advanced cellulosic ethanol and gasoline substitute
3 production plants, so it's just not totally on ethanol,
4 but recognizes that there are the possibility of
5 producing other types of gasoline substitutes. The
6 problem goes back and then into the text which hasn't
7 made the same change. For example, on page 106, the
8 same table there in that portion of the report still
9 talks about ethanol funding allocation, and I would just
10 suggest changing the title of that to gasoline
11 substitute funding allocation. And then, similarly, in
12 the actual body of that table on page 106, talk about
13 advanced cellulosic ethanol and gasoline substitute
14 production plants. So, those are really the two
15 comments that I've come up with. I may find some others
16 to comment on before the 7th, but I really appreciate the
17 excellent work that has been done by this Commission and
18 staff, and look forward to working with you in the
19 future. Thank you.

20 VICE CHAIR BOYD: Thank you, Chuck. The
21 Commission and the staff, in particular, thank you for
22 those comments.

23 MS. DEMEFA: Next, we have Bill Elrick with
24 the California Fuel Cell Partnership.

25 MR. CARMICHAEL: While he's coming up, could I

1 just ask a clarifying question? I just want to make
2 sure everyone is on the same page. I thought I heard
3 Charles say earlier today that you really want comments
4 by the 3rd of June. Is that correct? Or did I mis-hear
5 that? I didn't realize Charles was - but if somebody
6 could clarify that today, that would be good.

7 VICE CHAIR BOYD: There he is, but he doesn't
8 know the question. Is June 3rd the date for submittal?

9 MR. SMITH: June 3rd is the preferred deadline
10 for Investment Plan comments.

11 VICE CHAIR BOYD: Preferred deadline. Do you
12 have a published deadline? Or is that the same?

13 MR. SMITH: I'll keep the June 3rd.

14 VICE CHAIR BOYD: Okay. Thank you.

15 MR. ELRICK: Thank you. I'm Bill Elrick with
16 the California Fuel Cell Partnership. I'm the Technical
17 Programs Director. First, I want to commend the hard
18 work by the staff and the committee here on not just
19 this plan, but the plans previous and all the effort
20 that's gone into these developments, especially as noted
21 despite the current economic, political, and even short
22 staffing climate that we're facing. The partnership is
23 very pleased with this committee draft. As stated, it
24 will help overcome many of the identified infrastructure
25 gaps in hydrogen fueling. We have a few minor comments

1 here and there that we will submit to the written docket
2 later. I also want to thank the staff and the
3 Commissioner for the time spent with industry, we've had
4 a lot of great meetings, conversations, working to
5 discuss and understand all the various challenges,
6 needs, and opportunities in this area. We think they've
7 been very beneficial in moving forward and getting us
8 from the current pre-commercial state to the early
9 commercialization timeline in 2015. We look forward to
10 working together in the future on the near term needs
11 and challenges, as well as continuing discussions on
12 some of the long term strategies we might take to get us
13 to full commercialization.

14 Again, I want to applaud all the efforts by
15 the CEC and the state, which has been enabling the
16 industry to move into this 2015 commercialization time
17 period, and look forward to working together with you
18 more and continuing some of the meetings we've been
19 holding. Thank you.

20 VICE CHAIR BOYD: Thank you.

21 MS. DEMEFA: Matt Horton with Propel Fuels.

22 MR. HORTON: Good morning. Commissioners,
23 staff, and committee, I am Matt Horton, CEO of Propel
24 Fuels and I'm going to be brief this morning as I am
25 sure what you all know what I'm here to talk about. As

1 was mentioned, we are very focused on the E85 category
2 and continue to be very pleased that the staff
3 recognizes the important contributions that the E85 will
4 have to make if our state is to come close to meeting
5 Low Carbon Fuel Standard, Bioenergy Action Plan, and
6 California's fair share on Renewable Fuel Standard 2.
7 Also, I appreciate the recognition that we are going to
8 need to move about three billion gallons of ethanol into
9 the state, and whether we like it or not, if we're going
10 to meet those goals. And with the challenges around E15
11 and other things, really, the only way we're going to be
12 able to do that is with massive deployment of E85. In
13 the staff plan, again, I appreciated the comments that
14 showed that we need thousands of E85 stations across the
15 state, we believe that is accurate. This is a market
16 where the technology is available today. Consumers are
17 currently rapidly adopting this fuel. It is a market
18 where there is no extra cost to the vehicles, that is
19 borne by the consumer. There is strong investor
20 interest in providing matching capital for deployment of
21 infrastructure and, as we heard earlier, this is a
22 critical component of the next gen fuel story; for our
23 ability to move these fuels into the market, we've got
24 to have the infrastructure in place. So, having said
25 all that, you know, it was a little disappointing to us

1 when we did see that the category has been reduced again
2 from one draft to another. We actually feel strongly
3 that, to meet the objectives that the Energy Commission
4 has laid out, the funding actually needs to head in the
5 other direction as staff has laid out previously, and I
6 just want to emphasize, as I think was well pointed out
7 by Tom Cackette, I think, was the first one I heard it,
8 a discussion about matching the vehicles to the funding
9 is an important part of this conversation. There are
10 nearly half a million flex fuel vehicles already on the
11 road. As soon as we make the infrastructure available
12 to them, to the consumers, they are enthusiastic and
13 they're buying in large volumes, so engaging those
14 consumers is a real key to our state's success in
15 meeting these objectives. And, so, I would just ask for
16 the Commission to be thoughtful again about the
17 appropriate funding level for the E85 infrastructure,
18 given that it is ready to go today, it's one of the most
19 straightforward things we can do in terms of developing
20 the market for these fuels, and again, just do want to
21 say that we also really appreciate the hard work that
22 staff has put in these recommendations. Thank you.

23 VICE CHAIR BOYD: Thank you, Matt. Let me ask
24 you a question. Would the E85 industry be prepared to
25 see a program that talked about loan guarantees, rather

1 than out and out grants?

2 MR. HORTON: I can speak to that pretty well
3 because you're looking at most of the E85 industry
4 today. It's certainly something that we would look at,
5 you know, we have been successful so far in being able
6 to find matching capital at a dollar for dollar basis.
7 I don't know how successful that will be with private
8 sources of capital, but it's certainly something we
9 would be willing to have a discussion about. But I will
10 say that, given that the volumes today are still
11 relatively modest, less than typically 10 percent of
12 what a gas station does in gasoline, that without the
13 continued grant support, the financial model is still
14 challenged and I think will be for some time to come,
15 but certainly happy to engage in a conversation around
16 that.

17 VICE CHAIR BOYD: Thank you. And I urge
18 Advisory Committee members to ask any questions of the
19 public if you so choose.

20 MS. DEMEFA: Next, we have David Rubinstein,
21 California Ethanol and Power.

22 MR. RUBINSTEIN: Hi. Vice Chairman,
23 Commissioners, staff, terrific work, it's great to see
24 you all again. Thank you for allowing me to be here
25 today. Some of the - the main question I have is, you

1 know, reading through the document, it doesn't seem
2 really clear to me where it says "non-ethanol gasoline
3 substitutes." So, in our case, if I could be specific
4 because we're trying to do sugarcane and sweet sorghum
5 to ethanol, and we don't want to fall into that gap
6 where we wouldn't be able to participate because it says
7 "non-ethanol." The other issue, too, and I think we
8 discussed this over the past couple years when I was
9 able to talk to the Commission, is that we still feel
10 that, when you talk about cellulosic advanced biofuel,
11 really, the goal is to bring manufacturer fuel here in
12 California with low carbon intensity, and if we're able
13 to do that and be able to qualify and be able to make
14 advanced biofuel at this same level as cellulosic, we
15 would hope to be able to participate at the same levels
16 that they do and get the same benefits. In addition to
17 that, if we were able to produce a very low carbon
18 intensity fuel here in-state, and blend it perhaps with
19 an in-state fuel blender that's using corn ethanol, I
20 think we're getting to the right direction that the
21 Commission is looking to get to. And we'd like for the
22 wording to be a little bit clearer so that we wouldn't
23 be locked out of participating with some of the grants
24 that are available.

25 VICE CHAIR BOYD: I hear your point. Any

1 staff comment?

2 MR. MCKINNEY: Jim McKinney, Commission,
3 staff. Thanks, David, for raising that issue and I
4 think the staff intent initially was to clearly
5 distinguish between corn ethanol support and all the
6 other low carbon sustainably produced ethanol products
7 that may be available, so I think it is the staff
8 position that the types of fuels that Mr. Rubinstein is
9 talking about would be eligible for the forthcoming
10 solicitation.

11 VICE CHAIR BOYD: And I would encourage you to
12 probably not only attend, but maybe participate in some
13 way in this summer forum, the workshop that we're
14 talking about today with Food and Ag, and the Energy-
15 Agriculture nexus. I mean, the point you made certainly
16 rings positively with me because I keep hearing
17 Brazilian Ethanol is the next thing in line, it's the
18 only thing that's going to get the carbon footprint to
19 score, and I'd rather we make it here in California with
20 an equal or better score, quite frankly - I'm sorry to
21 my Brazilian friends, but they'll get their day, I'm
22 sure. But in any event, good point. Excellent point.

23 MR. RUBINSTEIN: Okay, thank you.

24 MS. DEMEFA: Next, we have Glenn Pascall, West
25 Coast Corridor Coalition. Is he here? Okay, he

1 requested to speak after lunch, so we will try him
2 again. John Boesel, Calstart. Okay, Wendy Mitchell,
3 ALTe?

4 MR. BOESEL: Thank you, Members of the
5 Advisory Committee and Commissioners. John Boesel with
6 Calstart. I just want to say that, first of all, I
7 think this is a tremendous piece of work and we'll see
8 some really great investments being made into this
9 sector to help advance the industry. I do think, for
10 the next Investment Plan, I'd really back Will Coleman's
11 suggestion that we start thinking about performance-
12 based metrics and if you look at the Investment Plan
13 today, it is a peanut butter spread, a little bit for
14 everybody. And I don't know that that's necessarily the
15 best approach and that if we had some clear categories
16 and metrics, you know, we want to put in so much money
17 for technologies and fuels that will get us near term,
18 you know, high certainty reductions in carbon, and not
19 be specifying whether it's ethanol, or propane, or
20 natural gas, or whatever, but just set a metric, and
21 then we want to also move toward the much lower carbon,
22 cleaner vehicles, and set that metric and let the
23 various fuels, let fuel cells compete with EVs and
24 others. And then, this way, when there are new
25 technologies that are coming to the fore, they can be

1 more easily integrated into the model and into the
2 system. And it puts the Energy Commission less in a
3 position of picking winners. And it also allows you to
4 be responsive to changes coming down the road. There
5 could be new Federal incentives that will change, come
6 in to play, and obviate the need for some of the
7 investments that are called for here. So, I understand
8 we're late into the process for this year and I think
9 it's a good plan, and it will make a very positive
10 impact for the industry, but we at Calstart would very
11 much be willing to engage with the Commission and the
12 Advisory Committee and start thinking through a more
13 performance-based approach going forward. And I also
14 want to say that I think this is particularly critical,
15 given what we're seeing with the vehicle efficiency
16 standards in the light-duty vehicle sector, we are now -
17 it's tremendous that the Prius is no longer the cleanest
18 car on the road and we have Volts and we have Leafs and
19 others. And how do we make sure that those vehicles get
20 out on the road and are deployed in large numbers? And
21 how can this program better help that and ensure that
22 that happens? So, those are my comments. Appreciate
23 the time.

24 VICE CHAIR BOYD: Thank you, John.

25 MR. COLEMAN: Commissioner, Brooke Coleman on

1 the line. Just a question for John if that's legal.

2 VICE CHAIR BOYD: That's legal.

3 MR. COLEMAN: Is he still there?

4 VICE CHAIR BOYD: He's here.

5 MR. COLEMAN: Okay, quick question, John, for
6 you, it's Brooke. Are you - it seems to me there's a
7 difference between - there's two categories of
8 performance standard, one would measure the performance
9 of the investments that are made, however they are made,
10 and the other one would make the investments based on a
11 performance standard, and I don't know what Will has
12 advocated for, but could you clarify whether or not you
13 believe the investments should be made along a
14 performance standard vs. measuring, you know, sort of
15 measuring some of the investments that have been made
16 for the purpose of transparency and performance.

17 MR. BOESEL: Well, first of all, I'd like to
18 encourage more intra-Coleman family discussion.

19 MR. COLEMAN: I better call him.

20 MR. BOESEL: Secondly, I think the two are
21 very much related, that if we can look at, per AB 109,
22 the impact of the investments to date, we could have an
23 understanding of which categories were moving forward
24 and what kind of impacts we've had in terms of the air
25 quality and carbon, then I think that could help serve

1 as the basis for then creating these metrics and these
2 larger pools of funds, so that we're not dictating and
3 setting aside small amounts for each type of fuel. But
4 then letting the various fuels and technologies compete
5 for those larger pools.

6 MR. COLEMAN: Okay, well, I would certainly be
7 supportive of that. Thanks.

8 MR. BOESEL: For the intra-Coleman family
9 communication or the latter? Sorry.

10 MR. COLEMAN: Irrespective of what his
11 position is!

12 VICE CHAIR BOYD: Tom Cackette, did you have a
13 question or a comment?

14 MR. CACKETTE: Yeah. John, don't run away so
15 quickly. How would you, under that concept, balance
16 short term performance vs. long term performance when
17 the goals that we have here are generally quite long
18 term?

19 MR. BOESEL: Well, I think to get to the long
20 term, I think you need a combination of - I would
21 recommend a portfolio approach, I think, is the short
22 answer to that. You can - there are some long term
23 strategies that we feel reasonably confident they will
24 work and we ought to be investing in those, but some of
25 them are really also risky. But then there are some

1 near term things that we know will work and will make an
2 impact 30-40 percent, and I think we ought to be
3 investing in both.

4 VICE CHAIR BOYD: Any other questions for John
5 Boesel before we let him go? All right, John, I think
6 this is your last trip back to your chair.

7 MR. BOESEL: Thank you.

8 VICE CHAIR BOYD: Wendy.

9 MS. MITCHELL: Good morning. My name is Wendy
10 Mitchell. I'm here on behalf of my client, ALTe. I'm
11 breaking Charles' rule about presentations only because
12 we're very late to the game, and I think we have an
13 interesting technology that you would all be interested
14 in. The Senior Management of ALTe would be here, but
15 they're meeting with their Advisory Committee, which
16 includes several - customer advisory committee - who
17 includes several California firms, including PG&E,
18 Santech, Film Vehicle Services, and Enterprise Rent-a-
19 Car. So, just a little background on ALTe, it's a
20 retrofit for a hybrid powertrain technology. We're
21 targeting fleet trucks and vans, taxis, etc. The
22 company is two and a half years old, it was formed with
23 three top Tesla executives who stayed in Michigan, and
24 then the factory is located now in Auburn Hills,
25 Michigan. The difference of what ALTe and other

1 technologies, etc., is we're actually targeting the
2 fleet trucks. As you all know, the fleet trucks burn
3 four times the amount of fuel of the regular passenger
4 vehicles. We have worked with potential customers who
5 work on a total cost of ownership model where they
6 include fuel costs, etc., and at a \$26,000 price point
7 for a retrofit, they think that it would pencil out and
8 are encouraging this technology. And, again, we are
9 alone in the market in targeting the light- and medium-
10 duty class I through IV trucks for retrofit. As I said,
11 it was inspired by the Chevy Volt, so you can think of
12 that on the retrofit for a truck, but it is scalable to
13 smaller or larger fleet vehicles, and then, you know,
14 initially they were targeting retrofitting existing
15 vehicles that are at the end of their OEM warranties,
16 but would still have useful life from a fleet
17 perspective, could be retrofit. Here are a couple of
18 the advantages of the ALTe technology, it's a
19 significant fuel increase to 80 to 200 percent
20 improvement in fuel consumption, it's been tested by
21 some of our customers, potential customers, and
22 validated our technology, and then it's greenhouse gas -
23 because of the lower emissions, and recycling vehicles.
24 Here are just some of the vehicles that would be
25 targeted by our company for retrofit, again. And this

1 is our plant in Michigan, which will be built out. We
2 are in prototype vehicles right now, we have one
3 prototype on the road, a second one in production, and
4 three or four with partnering with customers that would
5 be prototypes that we would put on the road, for them to
6 test for three or four months and then get the
7 information back. Having sat through this presentation
8 and, again, the Commission report, I'm hoping that we're
9 potentially available for the light- and medium-duty
10 truck funding, potentially, or the innovative
11 technologies. I'm not sure exactly where we fit
12 because, again, we're kind of in between as we're going
13 through the CARB certification, and find that we're
14 really in between in sort of a particular regulation,
15 it's going to be halfway promulgated because we're not a
16 new vehicle or strictly retrofit. So, I appreciate any
17 advice and thank you for listening.

18 VICE CHAIR BOYD: Thank you, Wendy. Always
19 good to hear about new California-based companies and
20 technologies. How many more blue cards do you have?

21 MS. DEMEFA: Just Glenn. Is Glenn here, by
22 any chance - Glenn Pascall?

23 VICE CHAIR BOYD: Because I think we have a
24 legal, if not moral, obligation to reconvene at 1:00 or
25 slightly thereafter, for anybody, but we'll let Glenn

1 go, and then we'll break for lunch, and then some of us
2 will be back in an hour or so in case people program
3 themselves around our agenda, which called for public
4 comment this afternoon. Tim.

5 MR. CARMICHAEL: Can I make a brief comment?
6 Because of another meeting, I may not be able to make it
7 back after lunch.

8 VICE CHAIR BOYD: That's fine.

9 MR. CARMICHAEL: Feeding off of John Boesel's
10 comments, I feel very strongly that that is one element
11 - what was suggested by John is one element, one
12 approach, that should be part of an ongoing effort to
13 make this program better every year, and I think that is
14 critical for this committee, the Commission,
15 Commissioners, the staff, to be looking for ways not
16 only to make the program more efficient, but to make it
17 more effective. And I encourage anybody that's
18 listening, participating, if you have ideas on how to
19 make the program better, bring them forward because, you
20 know, I personally think we want this program to be
21 renewed when the current program sunsets. All of that
22 said, we're still talking about \$100 million a year.
23 And you're fooling yourself if you think that this
24 program is just going to be maintained without some
25 level of ongoing support, fight, you know, competition

1 with other demands for this level of funding. There is
2 no \$100 million pot in this state that isn't going to
3 face scrutiny, isn't going to face a challenge from some
4 interested party, some politician, you know, some
5 coalition. And I raise that because, you know, we went
6 through a battle last summer and I think we were pretty
7 successful, but I'm anticipating and I think everyone
8 that cares about this program should anticipate ongoing
9 challenges. And we should be prepared for the fight
10 because we believe in this program. And it's those
11 sorts of challenges, because of the fiscal constraints,
12 because of the competition, they're going to continue.
13 And I think we all need to have the mindset that we're
14 in it for the long term and be prepared for a fight, and
15 we need to call it out, call the facts out, and defend
16 the program as needed. Thank you.

17 VICE CHAIR BOYD: Thanks, Tim. You and I are
18 thinking somewhat the same way. And my closing remarks,
19 which you obviously won't be here for, I was actually
20 going - I had noted the discussion earlier and had made
21 a point here to myself of maybe soliciting the Advisory
22 Committee membership as a committee of the whole to
23 submit any ideas they might have, and any thinking that
24 is going on, basically what you just said, about submit
25 to the staff, submit to Jim, in particular, ideas about

1 performance measures and criteria, and what have you,
2 for us to start weighing that issue because the more we
3 can have, get a running start on what probably ought to
4 be key in the next plan, well, the sooner we start, the
5 better. So, anyway, thanks. Glenn? My fear is one of
6 our coming back at 1:00 people who may have made a
7 luncheon obligation. So, let's break for lunch, let's
8 presume to restart at about 1:15.

9 (Recess at 12:05 p.m.)

10 (Reconvene at 1:23 p.m.)

11 MR. SMITH: I think we're ready to reconvene.
12 We're in the midst of our public comment period. And we
13 have received a couple additional blue cards from people
14 in the audience. I would also remind anyone else in the
15 audience, if you haven't already done so, to fill out a
16 blue card if you would like the opportunity to speak.
17 We also, as I understand it, have a few people waiting
18 to speak from WebEx and will get to them as soon as we
19 finish the discussions from the people in the audience.
20 So, if Glenn Pascall is here, great. If you please.

21 MR. PASCALL: Vice Chair Boyd, and other
22 members of the Commission and the Advisory Committee,
23 I'm Glenn Pascall. I'm here today representing the West
24 Coast Corridor Coalition. My apologies for not
25 responding when my name was called this morning, I got

1 tied up in another meeting that had been previously
2 scheduled. The West Coast Corridor Coalition, for the
3 last 10 years, has empowered state and metro area
4 transportation leaders from Alaska to Mexico to develop
5 mutual policies, share best practices, and target
6 investments at a system, rather than a project level.
7 And for the last five years, a priority of the Coalition
8 has been to reduce the environmental and climate impacts
9 of transportation by applying post-petroleum
10 technologies and efficient system operations. As for
11 conferences and working committees, we've become
12 recognized as a convener of key West Coast players,
13 including some people in this room, to coordinate and
14 advance their green transportation efforts. And I am
15 here today to briefly, within the three-minute limit,
16 preview for you two initiatives that we will describe in
17 more detail in a CEC docket filing that will be put in
18 within the next few days because Charles Smith advised
19 us all of those are hopefully going to be in by the end
20 of the month.

21 The first of these initiatives is the West
22 Coast Green Highway, based on the I-5 Corridor. Thanks
23 to our membership and geographic reach, we've maintained
24 close contact with Oregon and Washington, as their
25 Departments of Transportation have moved toward this

1 goal. And those two states have repeatedly expressed
2 the hope and desire for actions by California that will
3 compliment their efforts. An I-5 Green Highway has many
4 aspects, including uniform signage, heavy vehicle
5 service, and public private partnerships in siting
6 facilities, but currently the exciting news is that fast
7 charging stations installed for \$100,000 each, and
8 spaced at intervals of 50-80 miles along I-5, can enable
9 EV travel along that entire corridor from border to
10 border. Moreover, this can be a revenue generating
11 business that attracts private investors and limits the
12 state roll to selecting a vendor, providing initial
13 funding, and contracting out for the service. The
14 breaking news, if you will, is that Washington and
15 Oregon both expect to have fast charging infrastructure
16 in place along I-5 by the end of October, this year.
17 They count on Metro areas to install urban stations and
18 are concentrating on serving rural areas. In
19 California, urban areas are advancing well, in fact, the
20 Washington State lead at their Department of
21 Transportation says the service area of Southern
22 California Edison is probably the national lead in terms
23 of urban infrastructure for EVs. But no one, according
24 to our northwest partners, has been identified in
25 California who is doing the connections between the

1 urban areas and 600 rural miles of I-5. For \$1 million
2 or less, California could close this gap with fast
3 charging stations. As a recognized convener bringing
4 Pacific State Transportation leaders together, we stand
5 ready to help in this effort to create a border to
6 border EV corridor.

7 The next and final topic is that the Chair of
8 our West Coast Corridor Coalition Environment and
9 Intelligent Transportation Systems Committee was named
10 by the Commission on Environmental Cooperation, a three-
11 nation UN designated consortium that is headquartered in
12 Quebec, to chair its just completed Sustainable Freight
13 Strategy for North America. We call the Commission on
14 Environmental Cooperation the "other CEC" and they have
15 suggested the West Coast as a demonstration site to
16 field test the principles of a Green Freight Corridor.
17 We invite your interest and involvement in this project
18 and will provide more detail in our written filing.
19 Thank you for your time and attention today.

20 VICE CHAIR BOYD: Thank you, Glenn, appreciate
21 hearing that. For many of you, we've known Glenn for
22 quite a while. Tim has participated in some of his
23 meetings. Glad to know that there's a group worrying
24 about the West Coast Corridor, so, appreciate the input.
25 Good idea.

1 MS. DEMEFA: Next, we have Kevin Miller with
2 the City of Napa.

3 MR. MILLER: Hello, Commission. I am from the
4 City of Napa, Public Works, Materials Diversion
5 Division. And I'm not an expert in energy issues, I'm
6 used to dealing with solid waste reduction and recycling
7 issues, which I've been dealing with for over 20 years.
8 My comments today are from the City of Napa, but they're
9 also broader as I am a member representing the Northern
10 California Recycling Association and also the California
11 Resource Recovery Association, who have both adopted
12 zero waste platforms initiatives to basically work
13 towards the goal of zero waste throughout the state.
14 And I just wanted to first compliment you, when we saw
15 the funding for the pre-landfill biomethane projects, we
16 wanted to compliment you for having that in your menu of
17 project categories. Recovery of biomethane from organic
18 fraction of solid waste, particularly food waste, is
19 really the next largely unaddressed portion of the waste
20 stream. Depending on your community, it can be in the
21 range of 15 to 35 percent of the waste stream. And for
22 the vast majority of it, there are a few exceptions --
23 Alameda County, a few places are successfully recovering
24 those -- but for the vast majority, those materials are
25 being landfilled. So your efforts to provide seed money

1 are pretty vital. And, you know, as a state, years ago
2 with AB 939, which set a goal for the state of 50
3 percent landfill diversion, if we want to get to that
4 next stage of 75 percent plus, we really have to address
5 particularly food waste, along with construction
6 demolition debris. These are very key components of the
7 waste stream. And I was trying to think of the pre-
8 landfill to give you an analogy and maybe it's somewhat
9 tortured, but I'll go for it anyway, of why it's so
10 important, and I'm going to use dental health as an
11 example. We all know the importance of brushing and
12 flossing to prevent those cavities, but if you do
13 develop a cavity, you've got to deal with it. Well, I
14 would say that landfiling is the cavity and you don't
15 need to give them any more support to get it at the back
16 stream. What needs seed money is the prevention, to
17 prevent it. If it ends up in a landfill, that is really
18 the failure of the system. If you want to look at what
19 is the long term sustainable system, it is to recover
20 the food waste upstream, recovery for both the top soil
21 and composting side of it, but also the power biomethane
22 potential there. We know at our -- because we have a
23 public facility with a private operator, we could power
24 our compressed natural gas fleet and expand that portion
25 of the fleet if we had some seed money to do so. So we

1 just wanted to, one, compliment you on having that on
2 you menu, and two, encourage you to preserve the pre-
3 landfill aspect of that program. Thank you.

4 VICE CHAIR BOYD: Thank you.

5 MS. DEMEFA: Next, we have James Chen of Tesla
6 Motors.

7 MR. CHEN: Commissioner Peterman, Vice
8 Chairman Boyd, and members of the Advisory Committee,
9 thank you for this opportunity. My name is James Chen
10 and I am the Director of public policy at Tesla Motors.
11 On behalf of the company, I would like to thank the
12 California Energy Commission for the opportunity to
13 provide these comments to the 2011-2012 Investment Plan
14 for Alternative and Renewable Fuel and Vehicle
15 Technology Program enacted under AB 118. With the
16 price of gasoline at over \$4.00 a gallon in this state
17 and many others, reducing America's dependence on
18 petroleum as the single source of fuel in our
19 transportation infrastructure is more important than
20 ever. Tesla Motors believes that the pure battery
21 electric vehicle provides the most viable and efficient
22 method for the U.S. Transportation sector to eliminate
23 our dependence on petroleum, particularly from foreign
24 sources. By relying on domestically produced
25 electricity, the sources of which are more easily and

1 efficiently controlled from an emissions standpoint, we
2 can power our transportation sector and grow our
3 economy.

4 Tesla Motors has already proven the viability
5 of EVs with the release of the Tesla Roadster, a pure
6 battery electric vehicle with class leading performance
7 and 245 miles of range on a single charge. By next
8 year, mid-year next year, we'll be releasing our Model S
9 Sedan, a high-performance EV with a price point starting
10 below \$50,000 at the base level, after Federal and State
11 tax incentives. Like the Roadster, the Model S will be
12 class leading in terms of performance, amenities, and
13 range, a maximum of 300 miles on a single charge.

14 Tesla will continue to produce both electric
15 vehicles and electric vehicle powertrains, moving down
16 the cost curve with higher and higher volumes, as we
17 gain efficiencies in production with each new model and
18 each new technology innovation.

19 So if the technology for EVs is proven, what
20 value can programs like the Alternative and Renewable
21 Fuel and Vehicle Technology Program provide? Simply
22 put, the support provided by State programs, like the AB
23 118 program, can help compress the timeframe necessary
24 for Tesla Motors to bring this proven technology to
25 market. For example, later this week, Tesla will be

1 presenting testimony before the Employment Training
2 Panel to support our application for AB 118 funding for
3 the training of workers at the Tesla Fremont facility.
4 This facility, formerly the home of the NUMMI, a joint
5 venture between GM and Toyota, is the new home of Tesla
6 Motors' manufacturing operations. If granted, the
7 funding from this program will allow us to accelerate
8 the hiring, training, and retention of over 520 new
9 workers over the course of the next year. These workers
10 will receive the latest training in state-of-the-art
11 electric powertrain and aluminum body vehicle
12 production, skills that will be brought to the United
13 States for the first time. While we would still hire,
14 train, and retain these workers without program funding,
15 the timeframe would be much longer. Alternatively,
16 funding would have to be diverted from other Tesla
17 programs, decreasing our ability to follow as quickly
18 with other new vehicles. For example, if funding from
19 ETP is successful, we will also be able to accelerate
20 additional products like the recently announced Model X,
21 a crossover utility vehicle based on the Model X
22 platform, currently slotted for release in 2014. Again,
23 without support, Tesla Motors would still produce this
24 vehicle, but most likely on a longer timeframe. Tesla
25 is also considering the pull ahead of other projects

1 that would help meet Tesla's bottom line goal of high
2 volumes of EVs at affordable prices. Program funding in
3 the areas of manufacturing and infrastructure can and
4 will assist with these efforts. Unfortunately, because
5 these are still in the planning stages, these are
6 confidential and I can't go into any more detail, but
7 know that we are looking at additional projects.

8 Tesla Motors supports the proposals to make AB
9 118 funds available for other aspects of advanced fuels
10 and vehicles technology such as research and
11 development. Two of the largest hurdles to mainstream
12 adoption of EVs is increasing power density, translated
13 into range, while reducing overall costs of the pack.
14 While Tesla will have reduced the cost of our original
15 Roadster battery pack by 60 percent and increased range
16 by over 25 percent by mid-2012 when the Model S is
17 released, much work remains to be done on these goals.
18 Funding and support of additional research and
19 development for light-duty vehicle battery technology
20 will help accelerate the pace of increasing battery pack
21 energy density, while reducing overall cost. In
22 closing, I again wish to thank the Commission and the
23 State of California for the leadership this state has
24 demonstrated with programs like the Alternative and
25 Renewable Fuel and Vehicle Technology Program, for the

1 sake of our economy, our national security, and our
2 environment, strong support of these programs is not
3 only a state imperative, it's a national one. Thank
4 you.

5 VICE CHAIR BOYD: Thank you. It was really
6 good to see you again. Any questions? Guess not,
7 thanks.

8 MS. DEMEFA: Okay, that was actually our last
9 blue card, so unless there are anymore comments in the
10 room, we can go ahead and turn it to people on the
11 phone. No? Okay, we'll go ahead and start with Linda
12 Collins.

13 MS. COLLINS: Hello. This is Linda Collins.
14 I'm the Executive Director of the Career Ladders Project
15 for California Community Colleges. We work statewide to
16 foster educational and career advancement for
17 Californians and we engage in research, policy
18 initiatives, as well as direct support to community
19 colleges and their workforce partners. We operate under
20 the auspices of the Foundation for California Community
21 Colleges as a nonprofit auxiliary to the Community
22 College System. And I just, first of all, wanted to
23 commend the Commission for its recommendation to
24 continue the investment in workforce development and
25 training as a critical element of you 2011-2012

1 Investment Plan, and to thank you, as well, for the
2 proposed increase to that amount in the most current
3 draft. Addressing the skills needs and gaps articulated
4 by employers is clearly critical if we are to develop
5 the clean transportation energy market.

6 We are also especially pleased to see that the
7 current draft includes attention to career path
8 development for new entrants. We believe the attention
9 to new entrants, as well as the continuing training and
10 pathways to advancement for those already working in the
11 industry is really critical if California is going to
12 build a healthy, green economy and system for the
13 future. We do want to underscore the importance of
14 these strategic investments in preparing more
15 Californians with the skills necessary to increase the
16 uptake of alternative and renewable fuel and vehicles.
17 Your focus on new entrants signals the State's intention
18 to build an inclusive, green economy for the future,
19 while enabling employers to find the skilled workers
20 they will need in the regions where they operate. There
21 are already a number of important and exciting career
22 pathway initiatives underway in California, such as the
23 large scale initiative currently funded by the
24 California Community Colleges, the Career Benefit
25 Academy Demonstration Project. It is designed to

1 establish pipelines to careers and additional higher
2 education opportunities for under-employed young adults
3 from low income and historically underserved communities
4 in California. These have been developed across
5 multiple sectors, but include pipelines to automotive
6 and heavy vehicle technician careers, leading to
7 advanced electric and hybrid vehicle training, as well
8 as pathways for bus operators and mechanics. Addressing
9 foundational skills for students while they are already
10 enrolled in the Career Technical Training Programs can
11 accelerate student progress towards high skilled
12 careers. All of these projects build on and leverage
13 resources from partnerships among local community
14 colleges, employer, labor, workforce boards, special
15 service agencies, and community-based organizations in
16 order to more effectively and efficiently enroll, train,
17 and place participants. Similarly, California has also
18 invested in a green transportation collaborative focused
19 on building career pathway programs in hybrid-electric
20 and electric vehicle transportation led by Skyline
21 College in San Bruno, along with sister colleges in Long
22 Beach and Richmond. With funding from a Green Challenge
23 Innovation Grant, these colleges are linking to broad
24 industry groups, regional leaders, and funded
25 organizations to focus on market acceleration.

1 The collaborative is actively partnering with
2 the Bay Area Climate Collaborative, Calstart, the
3 Automotive Service Council of California, the Port of
4 Long Beach, along with others. On June 10th, the
5 Collaborative is hosting a forum with industry,
6 workforce development leaders, and Assembly Member
7 Bonnie Lowenthal, the Transportation Committee Chair, to
8 gather and discuss industry trends and hybrid-electric
9 heavy-duty transportation at the Port of Long Beach. We
10 certainly invite your participation at that event and,
11 should you be interested, please feel free to follow-up
12 with us at TRolandcCareerladdersproject.org. And we are
13 also working with the Commission staff to set up a WebEx
14 access for the event. We are enthusiastic about
15 California's leadership in alternative and renewable
16 fuel and vehicle technologies and we look forward to
17 working with you, the Commission, to build upon and
18 leverage such innovative workforce initiatives and
19 investments, and to further develop effective and
20 efficient post-secondary educational career pathways.
21 We believe that connecting the dots across these many
22 initiatives and others already funded by the Commission
23 to build on established partnerships will allow the
24 state to move farther, faster, towards its goals and
25 help California reach a real tipping point in

1 Alternative Fuel and Vehicle Technologies. We want to
2 thank you for your vision and your leadership on this
3 critical set of issues. Thanks.

4 VICE CHAIR BOYD: Thank you very much. Any
5 questions? Hearing none, thank you very much for
6 coming.

7 MS. DEMEFA: Next up, we have Paul Staples.

8 MR. STAPLES: Yes, can you hear me? Hello?

9 MS. DEMEFA: Yes, we can hear you.

10 MR. STAPLES: You can hear me, okay, great.
11 Well, this is the first time doing it by my computer mic
12 rather than on the phone, so thank you very much for
13 this opportunity. My name is Paul Staples. I'm a
14 Chairman and CEO of Hydrogen Industries. We do market
15 research and development on renewables, clean,
16 sustainable hydrogen infrastructure project development.
17 I have a couple questions I want to pose to the panel,
18 but I'll pose them now and maybe someone can respond
19 afterwards. I saw \$10.2 million somewhere, so is it \$10
20 million or \$2 million, or \$8 million, in one of the
21 slides? Second, is there any option for increasing that
22 amount if response is overwhelming, if the response is
23 good? That would be an important factor because I know,
24 in previous ones, that that was something that was at
25 least mentioned as a possibility. Also, will there be a

1 rollover of any funds from the previous RFP that didn't
2 get used to answer this next one? And what will the
3 amount be for coming RFP and how about combining the two
4 in the next RFP? Is that possible? Taking that \$8
5 million and current amount so we can get some economies
6 of scale in some of these things? So, those are my
7 three questions to the Committee and I'll go out and
8 finish my response, my comment.

9 First of all, you guys do a lot of work, I
10 mean, with an Investment Plan this large, it's a lot of
11 work, especially with all this diversity in it, it's
12 amazing that you're able to even get it out with the
13 current staffing that you're dealing with, much less,
14 you know, get anything right for that matter. But,
15 however, there are real problems. The funding for
16 hydrogen infrastructure is anemic and it's destined to
17 cause fuel cell electric vehicles to fail on roll-out.
18 It is counterproductive and will sabotage the roll-out.
19 You know, the only successful strategy is to increase
20 leading up to roll-out, it is general conventional
21 wisdom, you do not decrease funding for it during the
22 roll-out, you increase it otherwise it will stifle the
23 roll-out. The amount should reflect an increase before
24 the roll-out, at least no reduction, okay, \$16 to \$20
25 million per our fee twice a year until 2017, that will

1 give enough stations out there so that the vehicles will
2 have an opportunity to succeed. Now, the next RFP
3 should be for renewable hydrogen to catch up because
4 you've already funded a lot and I support natural gas
5 hydrogen because I have seen recent research show that
6 even with natural gas generated hydrogen, you have less
7 CO₂, less carbon monoxide, less criteria pollutant than
8 any other option being proposed except for electric
9 renewable hydrogen. Okay? So, you know, it is a better
10 step, it will reduce greenhouse gases, despite about
11 what Secretary Chu says, which in my opinion means he
12 doesn't even read the research from his own people, you
13 know, in his own department. So, the next RFP should
14 reflect that and I would be glad in helping to work with
15 them to do so in any way.

16 Now, the hydrogen is the only sustainable
17 option, even with natural gas performing as I said, it
18 is more sustainable, especially with the amounts of
19 natural gas being purported that are out there. So,
20 distributed generation, on-site demand or
21 infrastructure, and deployment conversion is a quicker
22 and less expensive option to convert or deploy than any
23 other option. Battery electric vehicles will require a
24 restructuring and a rebuilding of whole residential
25 infrastructure if we go that way, especially with home

1 charging, and that's going to cost big bucks, many
2 billions in order to do, otherwise you're not going to
3 -- you're going to have neighborhoods shutting down.
4 The economies of scale is necessary to bring this price
5 down, and only government can do it. I mean, you know,
6 business [inaudible] [00:23:53] - infrastructure or
7 conversion. Hoover Dam, PVA, rural electrification, all
8 were done in less than 10 years by the government
9 funding and making the commitment to do it, so, you
10 know, and there was no guarantee at that time that that
11 energy would be used, okay? There was no guarantee
12 because they didn't guarantee that everyone was going to
13 hook up to electricity at that time, so there was a
14 chance that was taken and that's what government does
15 better than anything else.

16 Now, on previous comments, there was a
17 discussion where someone mentioned that the central
18 generation is the long term solution. Well, that works
19 for those who generate centrally, but it doesn't work
20 for fueling station operations, it is illogical. You
21 have to deliver the hydrogen in one way or the other and
22 that has a whole carbon footprint of its own that adds
23 to the problem, as well as the fact that the cost for
24 doing it without that carbon footprint needs pipeline,
25 which is extremely expensive and an extremely long term

1 option. So, central generation, although certainly more
2 efficient when delivered by pipeline, is true in the
3 long run because pipeline is less losses in energy than
4 power lines, it is not good for a short term option and
5 it is extremely expensive and will take many many years.

6 MR. SMITH: Paul, this is Charles Smith,
7 Project Manager. You're running a little bit long on
8 your comments, we had hoped to keep it to three minutes,
9 so I wonder if you could maybe take 30 seconds to wrap
10 up and then we'll try to speak briefly to some of the
11 questions.

12 MR. STAPLES: Okay, okay. No problem, my
13 apologies. The whole situation here is basically this,
14 okay, first of all, there were other things that were
15 said, there is no such thing as sustainability in
16 biofuels, cellulosic, or otherwise, okay? You know, as
17 far as someone who mentioned EVs vs. fuel cell electric
18 vehicles, well, fuel cell electric vehicles are EVs,
19 okay? It's the ultimate EV, all right? And fast
20 charging is not viable, it takes too long, still, and my
21 research with station owners, and particularly station
22 owners, have stated that they don't want nothing to do
23 with it, there's no business model for them. So, what
24 are we going to do? Okay? Are you going to build
25 stations from the start, buying out current corners?

1 No, it doesn't make sense and way too expensive. Fast
2 Charging is not viable because of the damage it will do
3 to the lifespan of the battery pack, okay? You'd be
4 replacing them every couple of years and that's every
5 expensive. And retrofits require car STP dynamometer
6 emission certifications for each class to be able to go
7 on the road, and that's another expense when talking
8 about retrofits. I know, I've done some work in
9 retrofits myself, and that's something that became very
10 much aware, something that only automobile manufacturers
11 can afford to do.

12 MR. SMITH: Paul -

13 MR. STAPLES: This program is funded - this
14 auto registration fee and is not part of the general
15 budget, so that's basically it. Also, fueling outlets
16 do not want biofuels either. So that's my comment.
17 Sorry for -

18 MR. SMITH: No, you're fine. Thank you for
19 your comments. I just wanted to briefly try to respond
20 to some of the questions you had about our
21 solicitations. So, the funding from fiscal year '10-
22 '11, that is the Investment Plan that was formerly
23 adopted last August, originally included \$13 million for
24 hydrogen, but because of our declining revenues share,
25 that amount decreased to \$10.2 million, and we haven't

1 yet released a solicitation based on that funding
2 allocation. Now, the \$8 million that you've seen
3 discussed here is for the proposed fiscal year '11-'12
4 Investment Plan and there is a very good possibility
5 that we will take that funding, or a large portion of
6 that funding, and combine it with the \$10.2 million that
7 has not yet been used from fiscal year '10-'11. And
8 that would be put into a solicitation that is under
9 development. I don't think we have a firm deadline for
10 when that solicitation will be released, but it should
11 happen within the next few months, I suspect, and if
12 you're on our Alt Fuels Listserv, which I believe you
13 are, you will be automatically notified when that
14 opportunity comes out.

15 MR. STAPLES: Well, if there is any questions
16 on anything I said, I'll be glad to answer them for you.

17 MR. SMITH: Okay, well, I think we have your
18 contact information, so -

19 COMMISSIONER PETERMAN: Hi, Mr. Staples, this
20 is Commissioner Peterman. I also would encourage you to
21 submit written comments if you did not feel that you
22 completed all your comments via the phone today.

23 MR. STAPLES: Oh, I will. By the 7th, right?

24 COMMISSIONER PETERMAN: The 3rd is preferable,
25 but the 7th is doable.

1 MR. STAPLES: No problem, I'll have them in by
2 the 3rd.

3 MR. SMITH: Great. Thank you, Paul.

4 MR. STAPLES: Thank you.

5 MS. DEMEFA: Next up, we have James
6 Provenzano. James? Okay, we'll go ahead and move on to
7 Edward Heydorn.

8 MR. HEYDORN: Yes, hello.

9 MS. DEMEFA: Hello?

10 MR. HEYDORN: Yes, good afternoon. My name is
11 Ed Heydorn and I'm with Air Products. I wanted to thank
12 the Energy Commission and staff for continued support of
13 hydrogen infrastructure through the addition of \$5
14 million into the 2011-2012 Investment Plan. When these
15 funds are combined with the \$10.2 million in the prior
16 year's plan, the total investment, if all of this future
17 funding is also targeted in Southern California would be
18 \$28.5 million. If you refer to our docket submission
19 from 22 March of 2011, this would bring us within \$11.5
20 million of reaching the objective that Air Products has
21 developed for the target amount of infrastructure to
22 meet the needs for the roll-out of fuel cell vehicles
23 and we are interested, of course, in working with the
24 Commission staff, the OEM's and other stakeholders and
25 the guidance for modeling tools like the street models

1 from U.C. Irvine to place those stations in the target
2 locations in order to meet the needs for the customers
3 of the fuel cell vehicles and to lead to a successful
4 launch and roll-out of those cars. I would be pleased
5 to meet with staff at their convenience to review this
6 strategy for hydrogen infrastructure deployment. Thank
7 you.

8 VICE CHAIR BOYD: Thank you. Any questions?

9 MS. DEMEFA: Okay, we're going to try James
10 Provenzano one more time. James, are you there? No?
11 Okay, that was the last of our online comments, so with
12 that, we'll go ahead and turn it back to Commissioner
13 Boyd.

14 VICE CHAIR BOYD: Thank you. Anyone in the
15 room who has decided they may want to make a comment
16 before we close down the public comment period? Okay,
17 any members of the Advisory Committee in the room or on
18 the phone have any comments, questions, or statements
19 they want to make before we wrap this up?

20 Okay, well, let me give some closing comments
21 and offer Commissioner Peterman the same opportunity.
22 First -- I'll speak for both of us? Okay, I love that.
23 Charles, did you have any other comments you wanted to
24 make? I'll just reiterate the publicly noticed deadline
25 of June 7th, the desirable June 3rd date that you have

1 educated everybody in believing is the deadline, and
2 appreciate everybody's offer to meet the accelerated
3 schedule so we can absorb more of the written comments.
4 Let me thank all the members of the Advisory Committee
5 for being here this morning and for those of you who
6 came back after lunch, and for this session, and for
7 those on the phone who have been with us throughout the
8 day, we appreciate your participation and your
9 contribution. I noted a fairly large number of comments
10 and questions and a delightfully large number of
11 compliments from the members, which I know the staff at
12 this point in time, and I, we Commissioners, very much
13 appreciate, perhaps I just a tad more than Commissioner
14 Peterman who hasn't been here and doesn't have as many
15 bruises as I do.

16 In any event, this Investment Plan, as you all
17 know, these many Investment Plans, have been kind of a
18 process of learning by doing, or taking into lessons
19 learned and also acknowledging the need for flexibility
20 and the inevitability of change out there in the world
21 in which we operate, and yet, in spite of all that, as
22 in response to Bonnie's questions this morning, it
23 seemed we've been able to adhere to our long term goals
24 of the Investment Plan. I think what we've been trying
25 to do is in fulfillment of the goals of the legislation

1 and all the intent behind that legislation, is build
2 bridges to the future that was envisioned by that
3 legislation and by attempting to address all the goals
4 and objectives and to merge those with new and breaking
5 technologies both in vehicles and fuels, and in matching
6 the efforts of California companies to do that with
7 their workforce needs and provide a trained workforce, a
8 developed workforce, for California so it can remain on
9 the cutting edge of issues as it has historically and
10 particularly on the cutting edge of technology, and in
11 particular addresses the long held desires of
12 Californians to have a healthy and clean environment
13 that feeds a strong economy.

14 Somebody mentioned earlier today, a little
15 while ago, the idea of a diversified portfolio, I know,
16 of technologies and fuels projects and activities, and I
17 know that is something that we here at the Commission
18 hold dear. We're very sensitive to the advice and
19 cautions of the investment world down through the years
20 of "don't put all your eggs in one basket," i.e.,
21 diversify your portfolio of holdings, or, in this case,
22 projects and activities, in order to make sure you reach
23 your future goals, and I think we have been well served
24 in doing that as we have watched the variances that have
25 occurred and the vagaries, sometimes, of the environment

1 and the world in which we live, and so this idea of
2 diversifying a portfolio in order to build this bridge
3 or these multiple bridges to our future has served us
4 well. We had another good discussion today on the idea
5 of measurement techniques, performance measures,
6 performance criteria, and in the discussion we had with
7 Tim Carmichael and again, now, I would solicit members
8 of the Advisory Committee to think about that topic and
9 maybe give us some written input in the not too distant
10 future with respect to things you'd like to see and the
11 ideas you may have for addressing this because, when we
12 do, after we've given you a slight breather, when we do
13 start the next process in the not too distant future,
14 obviously based on the discussions this year of this
15 committee, this advisory committee, the necessity of
16 getting to the performance measures in the next
17 iteration have been well driven home for good reasons
18 and the expectations are pretty high outside our little
19 closed community here that we'll be able to do that, and
20 I think we have to make that nearly the highest priority
21 in the next effort we undertake. We've all gotten
22 pretty comfortable with the general direction of the
23 plan and the degrees of emphasis in certain areas which,
24 of course, can be varied by us in the future as the
25 world changes around us, but the expectations of

1 measuring progress against plan and coming with
2 performance measures are obviously something that people
3 will be looking forward to.

4 I guess, in conclusion, I would say that I
5 think we all work real hard to connect the dots between
6 policy goals as established in the legislation and the
7 policy goals behind the intent of the legislation, which
8 are all of our societal, environmental goals, including
9 energy security and reducing our dependence on petroleum
10 in order to address our climate and public health and
11 energy security goals, excuse me, it's allergy time in
12 Sacramento, so, again, I appreciate all the
13 contributions folks have made today, we appreciate
14 taking this chunk out of your lives to help us make
15 things a little more simple for the over-taxed staff
16 here and we much appreciate your positive comments about
17 what they've done. So, Commissioner Peterman, unless
18 you have some comments, or anybody has any other
19 questions, we're nearing the end of our day and a bit
20 ahead of schedule.

21 COMMISSIONER PETERMAN: Thank you, Vice Chair
22 Boyd. No, I have no comments, I think you summarized
23 that very well.

24 VICE CHAIR BOYD: Thank you. Well, thank you
25 every - oh, Bonnie. Bonnie gets the last word in.

1 MS. HOLMES-GEN: Just in response, I guess two
2 questions, one, when would the staff draft, I guess, for
3 the IEPR report that would have the GHG and other
4 performance, you know, the evaluation of the program be
5 available, and the second thing is, just as we go
6 forward, it would be nice to know, are you envisioning a
7 separate discussion about the performance criteria
8 separate from an Advisory Committee? Or integrating
9 that into a future Advisory Committee meeting?

10 VICE CHAIR BOYD: I should let the staff
11 venture into this. I am envisioning that we'll probably
12 have a meeting of the Advisory Committee before the IEPR
13 is anywhere near done anyway, but as to the timing,
14 maybe I should look to Pat and the staff as to their
15 knowledge on the coincidence of the schedules for the
16 IEPR and the next round of Advisory Committee activity.

17 MR. PEREZ: Okay, thank you, Commissioner Boyd
18 and thank you, Bonnie, for the question. The timetable
19 we're looking at right now for the input to the IEPR
20 Report would be coming late this summer and staff is
21 currently working on that AB 109 report and, of course,
22 that would be incorporated in the Draft IEPR which I
23 believe gets released early fall. So, as one of the
24 requirements of AB 109, we are required to hold a public
25 workshop on that draft, so you'll be hearing more about

1 that as we move into summer as to the schedule for that
2 public workshop.

3 MR. SHEARS: John Shears, one of the Advisory
4 Committee members. Just sort of following-up with Peter
5 a little bit about this before lunch, I'm just wondering
6 if, as we're - a lot of these discussions around
7 performance-based approaches, this is the same ground we
8 went over the first Investment Plan, and we still have
9 these issues of, you know, trying to go after near term,
10 mid-term, long term, and it gets riskier the more long
11 term, you know, the potential for the various
12 technologies, you know, appears. I'm just wondering if
13 it might be an idea to hold sort of whether, as part of
14 the AB 118 process, or as an adjunct to it, a workshop
15 where we bring in some of the experts on technology
16 transition and the like to be able to go over the
17 expiration of that ground and the issues a little more,
18 to help inform the whole AB 118 process. Because part
19 of the tension, and the staff is always mindful of this,
20 I know, is managing all of those needs, and Tom Cackette
21 sort of mentioned, you know, how we are defining
22 performance standard in this sort of near term vs. long
23 term context, and what that means. So I'd just like to
24 offer that up as a suggestion.

25 VICE CHAIR BOYD: Thank you, John. I see the

1 staff making copious notes there, so I'm sure they'll
2 take that into account. I am reminded that our R&D
3 program, the PIER Program, has struggled and is still
4 working on the subject of performance measures, as well,
5 and we may be able to import into our activity findings
6 that they may glean that are applicable to this type of
7 activity vs. just the PIER Research activity. Okay, any
8 other comments? If not, thank you all very much and
9 this workshop is ended.

10 (Adjourned at 2:07 p.m.)

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