

BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the Matter of:) Docket No.
)
Alternative and Renewable Fuel and)
Vehicle Technology Program 2010-2011)

INVESTMENT PLAN PUBLIC WORKSHOP

Long Beach, CA

THURSDAY, MAY 20, 2010

9:00 A.M.

APPEARANCES

Leslie Baroody

Charles Smith

Peter Ward

Gilbert Gallahar

Elizabeth Ambos

Mr. Golshani

Len Pettis

David Bleugman

Vasilios Manousiouthakis

Richard Teebay

Mayra Sheikh

Dave Rubenstein

I N D E X

| | Page |
|-------------------------|------|
| Opening Comments | |
| Leslie Baroody | 4 |
| Presentations | |
| Charles Smith | 8 |
| Peter Ward | 10 |
| Questions and Answers | 23 |
| Public Comment Period | 24 |
| Adjournment | |
| Certificate of Reporter | |

1

1 P R O C E E D I N G S

2 MAY 20, 2010

9:03 a.m.

3 MS. BAROODY: Okay, I think we are finally ready
4 to start. Thanks for your patience. Good morning to all of
5 you here today and for those listening in on the WebEx. I
6 am Leslie Baroody and I am Project Manager for the 2010-2011
7 Alternative and Renewable Fuel and Vehicle Technology
8 Program Investment Plan. We are just glad to be back here
9 in Long Beach after a few months; we were here last
10 September for one of five public workshops on the Investment
11 Plan. At that time, we invited stakeholders and industry
12 and the public regarding the development of this Investment
13 Plan. Now that we have a draft, we are here to present it
14 to you and receive input from you today. I want to thank
15 the City of Long Beach for once again allowing us to use
16 this wonderful facility.

17 We have a full agenda today and we want to give
18 any of you that would like to speak an opportunity to do so.
19 After I discuss the AB 118 program, we will have Charles
20 Smith, our co-project manager, who is here somewhere, and he
21 will be talking about the funding allocation. And then
22 Peter Ward will also come on and talk about the Investment
23 Plan, from the methodology for developing the funding
24 allocation, as well as the details of the allocation. We
25 will have time for questions at that point and if the

1 questions do not last too long, we will perhaps start the
2 public input before lunch. Otherwise, we will come back
3 after lunch and continue with public comment. We also have
4 blue cards that some of you have already filled out. If you
5 would like to speak, just fill one out and give it to Pilar.
6 And if you are on the WebEx and would like to speak, please
7 let Pilar know. Thank you.

8 Well, the Alternative and Renewable Fuel and
9 Vehicle Technology Program was established by Assembly Bill
10 118 in October of 2007, and later amended by AB 109 in 2008.
11 The purpose of the program is to develop and deploy
12 innovative technologies that transform California's fuel and
13 vehicle types to help us attain the State's climate change
14 policies. Since 2003, key policies have been adopted in
15 California to achieve the State's petroleum reduction and
16 climate change goals. Prior to AB 118's adoption, Executive
17 Order S 305 established the goal of petroleum fuel use
18 reduction to 15 percent below 2003 levels by 2020. In 2006,
19 AB 32 was adopted, which established the goal of reducing
20 greenhouse gas emissions in California to 1990 levels by
21 2020, and 80 percent below 1990 levels by 2050. AB 1007,
22 otherwise known as the Pavley Bill, adopted in September of
23 2005, required the Energy Commission to develop a plan to
24 increase the use of alternative fuels in California. The
25 resulting State Alternative Fuels Plan set a goal of

1 increasing alternative and renewable fuels. Finally,
2 Executive Order S 606 established an in-state biofuels
3 production goal of producing in California 20 percent of
4 biofuels used in-State by 2010, 40 percent by 2020, and 75
5 percent by 2050.

6 In order to provide a market mechanism to carry
7 out these policy objectives, AB 118 authorizes the Energy
8 Commission to develop and deploy innovative fuel and vehicle
9 technologies to achieve the State's key climate change and
10 energy policy objectives. The program spent seven and a
11 half years and it has a sunset date of January 1st, 2016. In
12 Fiscal Year '08-'09 Investment Plan, \$75 million was
13 allocated, and in Fiscal year '09-'10, \$101 million was
14 allocated for a combined total of \$176 million. In this
15 current 2010-2011 Investment Plan, the request is for \$108
16 million. These will not be made without adopting or
17 advocating any one preferred fuel technology. They also
18 cannot be used for projects that are required by state,
19 federal or district rules or regulations.

20 The program also addresses the state's need for
21 workforce training for the emerging green economy and the
22 need for job creation. The Energy Commission must also
23 establish the sustainability goals to make sure the
24 program's projects do not adversely impact natural
25 resources, especially state and federal lands. Getting the

1 word out about the program through marketing and public
2 education and outreach is essential to ensure success of the
3 program. Finally, there is an ongoing need for technical
4 assistance, as well as environmental, market and technology
5 analysis to support the development of the Investment Plan.

6 The Energy Commission is required to develop and
7 adopt an annual Investment Plan which determines the
8 priorities and opportunities for program events. This plan
9 must include input from the Advisory Committee throughout
10 its development. The process of developing the Investment
11 Plan involves stakeholder input via workshops such as this
12 one, a public docket, and Advisory Committee meetings. For
13 the 2010-2011 Investment Plan, we conducted five public
14 industry workshops for each of the fuel types -- this was
15 last fall -- and have had two Advisory Committee meetings
16 since then. Three public workshops are required for the
17 Draft Investment Plan, and they are followed by a 30-day
18 public review period. As you can see by the schedule, after
19 this workshop, we will have two more, one in Stockton on the
20 25th, and then one next Thursday, the 27th, in San Francisco
21 at the CPUC. After all of these workshops, we will
22 incorporate into the Investment Plan, go through the review
23 process once again, and then post it on the website at the
24 end of June. After the 30-day public review period, the
25 Energy Commission may adopt the Investment Plan on July 28th.

1 Once again, we really appreciate your presence here with us
2 today and we welcome your participation. Now, I would like
3 to introduce Charles Smith.

4 MR. SMITH: Thank you. My name is Charles Smith
5 and I would like to go over a bit of the funding summary for
6 the fiscal years 2008 through 2010, so these are projects
7 that are not included in the Investment Plan, but are based
8 off of the previous Investment Plan. So to date we have
9 invested \$50 million into workforce development. We opened
10 up a broad cost sharing program for projects that came to us
11 with Federal ARRA or American Recovery and Reinvestment Act
12 funding. We have provided \$36,520,000 in funding, and based
13 on that we have leveraged \$93,632,000 from the ARRA Program.
14 We have opened and closed three Program Opportunity Notices,
15 first the biomethane production PON, we have allocated about
16 \$21.5 million for biomethane production facilities. We have
17 posted our Notice of Proposed Awards for those projects
18 under that PON, and the next step will be to arrange
19 agreements and finalize those agreements for those projects.

20 Skipping down to fuel infrastructure, we have just
21 posted the Notice of Proposed Awards for our Fuel
22 Infrastructure PON, as well, that is for ultimately \$13.8
23 million, and then, finally, we are still scoring and
24 reviewing our medium- and heavy-duty vehicles Program
25 Opportunity Notice. That will be somewhere in the range of

1 \$9.5 million. We have also entered into an interagency
2 agreement with the State Treasurer's Office, this is the
3 Master Agreement for \$39.9 million, these two next PON's,
4 they are open, but they close today, so we have a PON for
5 new biofuel production plants for \$14.9 million, and another
6 PON that closes today for manufacturing facilities for \$19
7 million. We also are preparing an Ethanol Producer's
8 Incentive Program with the State Treasurer's Office, and
9 that was funded up to \$6 million. We also have a couple of
10 projects with proposals in the pipeline, as it were, we have
11 \$6.6 million that is anticipated to go to a Center of
12 Excellence for the development and demonstration of medium-
13 and heavy-duty vehicles, either as alternative fuels. We
14 have a hydrogen fuel infrastructure solicitation that should
15 be going out on the street fairly soon, within the next week
16 or two. We are anticipated \$2 million for propane school
17 bus incentives, perhaps another \$2 million to go toward
18 sustainability analysis, we are entering into an agreement
19 with the Division of Measurement Standards for \$4 million,
20 and that would be to establish standards for both biodiesel
21 and hydrogen fuel to assist so that they can be sold in a
22 traditional commercial manner. And then, finally, we have
23 \$1.45 million into NREL and UC Irvine street models, which
24 will be to provide technical and analytical support in our
25 Investment Plan and in our funding implementation. So I

1 would now like to invite Peter Ward to provide a summary of
2 the new Investment Plan.

3 MR. WARD: Thank you, Charles. Good morning,
4 everybody. Thanks for coming. I appreciate you being here.
5 What we are seeking today, of course, is your comment on our
6 new Investment Plan, and that is what I am going to present
7 to you briefly today. I am sure that you folks have already
8 read it, probably several times, it is really a good read,
9 and right on into the summer, a good read for that, as well.

10 As Charles mentioned, this is for the Fiscal Year
11 FY '10-'11, starting July 1st. Of course, all that is
12 contingent upon the passage of the California Budget and, of
13 course, we know that is really no problem. In the past, we
14 have gone into July, August and September without a budget,
15 but we want to be prepared for when that budget agreement is
16 reached so that we can get up and running. In the first
17 year, our process got a little bit bogged down with the ARRA
18 solicitations that came from the Federal Government, and
19 their evaluation of the myriad proposals that they got, that
20 they were aware of, as well, was delayed so our co-funding
21 on some of those was kind of held up, too, until we found
22 out some good, but mostly bad news from the Federal
23 Government for California's cost share. Funding allocation
24 methodology that we pursued in the first Investment Plan
25 will hold true for this one, as well. We are guided by the

1 purpose of the program, which is to achieve climate change
2 goals for the State of California, so that would be the AB
3 32, 2020 goals, getting back to 1990 GHG levels by the year
4 2020. There is also an Executive Order by Governor
5 Schwarzenegger that we have an 80 percent reduction by 2050.
6 In the first Investment Plan, we evaluated both of those
7 goals, how we could achieve those, and we used the State
8 Alternative Fuels Plan that was jointly adopted by the Air
9 Resources Board and the Energy Commission, and found in that
10 good news, alternative fuels can be a 20 and 30 percent
11 reduction in GHG immediately, before the AB 32 requirement,
12 or before the Low Carbon Fuel Standard, which is an early
13 action of AB 32, is fully implemented. We think that
14 alternative fuels and the advanced vehicle technologies are
15 excellent ways to achieve these goals to provide economic
16 development for California and provide competition to the
17 Transportation Fuels market and make more efficient use of
18 the fuels that we use. We do think that our plans are
19 consistent with those goals and we will be working hard to
20 flesh out the various paths to 2020 and 2050, as we go
21 along. Charles mentioned that we have some program and
22 marketing development activities that will help us flesh
23 those pathways out, so that we can assure we are on the
24 right trajectory to achieve those goals. We have performed
25 a gap analysis by fuel type for the first Investment Plan

1 and we are cognizant of that, and updating that as we can to
2 make sure that our funding can fuel the gaps that we can
3 identify with private and federal funding, so we can make
4 the best use of our funding and so we can also know that our
5 funding is useful in filling those gaps. Charles went over
6 some of the non-GHG categories as we call them, and program
7 development support. I think it is very important for this
8 program to be informed every step of the way so that we can
9 take in the most recent developments to date and fuels and
10 technologies, so our program is assimilating those up-to-
11 date developments and making sure we are moving forward as
12 we go forward in this program.

13 Over to the allocations. I am going to briefly
14 describe them. Each one of the categories in the new
15 Investment Plan, as I say, you folks are all very very well
16 read on the Investment Plan at this point, so I will just
17 hit the high points, and if you have particular questions, I
18 would be happy to answer them to the extent we can. I want
19 to point out that this is, as Charles mentioned, a Draft
20 Investment Plan, it is not finalized yet, will be by the end
21 of July, we hope. And in this process, your comments are
22 critical to us. We want to hear if we are meeting the
23 market. If you have good suggestions for projects, all the
24 good ideas for new technologies that we have not pulled into
25 this plan, we would like to hear from you. We have an open

1 docket for the Investment Plan. We encourage you to submit
2 the information that you have there, or participate in these
3 workshops that we are holding today here in Long Beach, and
4 next week, Wednesday, in Stockton, and next Thursday will be
5 in San Francisco. So there is ample opportunity for the
6 public to be engaged in this program. We are actively
7 seeking that out and we encourage your participation in any
8 forum. We will probably have one more meeting after these
9 workshops before the finalization of this Investment Plan,
10 and then hopefully we finalize the Investment Plan and get
11 rolling for the \$108 million that we have for the next
12 Fiscal Year. The first allocation is for electric drive, it
13 is depicted here, it is the developed and demonstrated
14 advanced on on- and non-road medium- and heavy-duty vehicle
15 technology. We have scheduled \$14 million for that
16 infrastructure-related activities; it is a continuation of
17 much of the electric charging infrastructure that we are
18 currently funding with the Notice of Proposed awards that
19 were released last week for electric vehicle infrastructure.
20 And manufacturing facilities and equipment, \$7.5 million, we
21 will be working with the Office of the State Treasurer to
22 provide this funding as leverage, either in the form of
23 interest buy-down, or loan guarantees and loan loss reserve.
24 And we are hoping that this will attract a great deal of
25 attention and economic development here for California.

1 \$7.5 million should be taken in that context, that it is a
2 leveraged amount, because we will be helping with the
3 commercial loans, as the Office of the State Treasurer, they
4 have a network of commercial banks that would lend money for
5 these manufacturing facilities, and our \$7.5 million would
6 be to basically ease those loans getting into the commercial
7 sphere. That would be for loan loss reserve, or interest
8 buy-downs. So I think that could be an effective means for
9 economic development job creation in California. Under the
10 ARRA, we were not very successful with the manufacturing,
11 there was \$2 billion available and, for some reason, the
12 Federal Government did not deem California worthy for even
13 one of those dollars. But moving on from there, we will be
14 having our own program, we are expecting good proposals from
15 our first Investment Plan that are due today at 4:00. I
16 hope everybody that is preparing one of those today will be
17 timely and make sure you get it in by 4:00 because at 4:01,
18 it will be rejected.

19 Funding allocation for hydrogen, this is a follow-
20 on for the first Investment Plan where we have \$22 million
21 available, \$3 million of that will be going to AC Transit,
22 with an interagency agreement for a hydrogen fueling
23 facility for the 12 new fuel cell buses they will be
24 receiving imminently. Their fueling facility there is
25 closing down in September, so it was fairly urgently needed,

1 there is one fueling facility that they are constructing
2 right now in Emeryville. The other \$19 million, as Charles
3 mentioned, is going into a Program Opportunity Notice that I
4 expect will be released on May 27th. I will be handling the
5 deployment of the pre-commercial vehicles, the light-duty
6 fuel cell vehicles in Southern California, and other regions
7 in California, where a critical mass of vehicles exist. \$19
8 million will be structured in such a way that we will work
9 directly with the OEMs to ensure that they are approved at
10 the stations and that they think they are the right way to
11 go, this is kind of a strategic investment at this point, to
12 make sure that the deployment of the fuel cell vehicles is
13 not stymied in any way by the lack of fueling
14 infrastructure. This allocation before next year for
15 fueling infrastructure, \$14 million, is critically dependent
16 upon the success of this Program Opportunity Notice that we
17 are about to release, so we want to make sure that we have
18 adequate funding should the \$19 million for retail fueling
19 facilities for the light-duty fuel cell vehicles is met, and
20 if it is not, this funding can be utilized to make sure that
21 we meet those needs going forward.

22 The funding allocation for what we are calling
23 gasoline substitutes, in the past, you may have seen in our
24 Investment Plan, and I am sure you have if you have been
25 paying attention, I know you have, we have called it

1 "ethanol" in the past, or "biofuels," these would be the
2 fuels in the future that will be over time either gradually
3 by blend or by drop in fuels, we will be displacing the
4 gasoline demand over time in California. We also have a
5 category for diesel substitutes, as well, we are calling it
6 that as a more generic umbrella, and we will be funding the
7 continued expansion of retail and fleet opportunities for E-
8 85. And will be allocating \$10 million for gasoline
9 substitutes production; now, that can be ethanol, or it
10 could be another biofuel that would be meaningful in the
11 transition away from gasoline.

12 Allocation for diesel substitutes, diesel
13 substitutes production, about \$5 million, and of course we
14 want to always accentuate the use of waste resources
15 wherever we can. Waste resources is critical because they
16 usually end up with a lower carbon score and we are favoring
17 for the lower carbon fuels whenever possible, whenever
18 practicable, that is the purpose of our programs, and we
19 want to make sure that our funding decisions are congruent
20 with the goals and the purpose of this program. We will
21 continue funding for bulk terminal storage and blending
22 facilities, which is in our current Investment Plan, and we
23 have just made some recommended awards in this regard. But
24 we will be continuing that element as the need is out there
25 for these bulk terminal storage and blending facilities as

1 we go forward.

2 Funding for natural gas - we did fund through ARRA
3 a significant amount of heavy-duty vehicles. We want to
4 fund heavy- and medium-duty vehicles to the level of about
5 \$12 million next year. Upgrades to fuel stations, \$2
6 million, this is particularly important, these are not the
7 new facilities, but the upgrades of existing facilities.
8 There has been a considerable investment made in California
9 in natural gas fueling facilities, be they CNG or ONG, that
10 that investment needs to be bolstered because things age
11 over time, as we all know, even people, but these stations,
12 we want to make sure these investments are carried forward,
13 as well. Many of these fueling facilities out there involve
14 cities, counties, and school districts, and cities and
15 counties and school districts are in a bad state of affairs
16 financially, so we want to make sure we can support those
17 and keep those facilities open and operating, and those
18 entities using natural gas can continue to use natural gas
19 and not switch back away from an alternative fuel to a
20 conventional fuel.

21 Biomethane production plants, it was a very
22 successful Program Opportunity Notice we had for biomethane.
23 We funded some very good projects in California, we have
24 been moving the ball, this was an area that was relatively
25 unseen in any Federal solicitation. Here in California, I

1 think we have identified it earlier, and we want to continue
2 with those because we feel this is one of the lowest carbon
3 fuels available for transportation. This has helped them
4 transition to improve both the fuel economy and the
5 greenhouse gas goal for natural gas vehicles on the road, be
6 they light-, medium-, or heavy-duty. The U.S. EPA has
7 called biomethane one of the lowest carbon fuels, a "twofer"
8 if you will, in that it captures the fugitive methane
9 emissions and utilizes those emissions to produce very very
10 low carbon fuel-based waste resources. Funding allocation
11 for propane is \$2 million.

12 As Charles mentioned, this year for school buses,
13 we are widening it a bit and adding a million dollars to
14 that for light- and medium-duty vehicles. The funding for
15 propane, like natural gas and the other alternative fuels,
16 can be 20 to 30 percent lower GHG equivalent, at least, if
17 not better, our criteria emission basis, they reduced
18 petroleum and displaced petroleum on nearly a gallon-per-
19 gallon basis ratio. They also, altogether, provide a
20 competitive platform for transportation fuels in California.
21 This is opening the door. This has really not been done in
22 a significant way, and I think that program is demonstrating
23 that the door can be opened, the sign can be put up,
24 competition is good in the transportation fuel sector, and
25 we would like to see more and more competitive as possible.

1 Obviously, petroleum is a troubled fuel going forward. We
2 know we are having a large difficulty, an ongoing difficulty
3 in the Gulf, but beyond that, the thirst for oil and the use
4 of oil in developing companies will outstrip the demand for
5 the developed countries very soon. It has reached the
6 commodity price level of economic concern. Whenever these
7 spikes go up, we usually end up with a recession, and I
8 think, going forward, it has to be evaluated in terms of
9 energy security, national security, and economic security,
10 to the point where, if we can get off petroleum, in general,
11 not just imported petroleum, I think we are a lot better for
12 that and our economy can become more stable. In fact, it
13 could be enhanced if competition in the transportation fuels
14 sector is achieved, and these alternatives can come into
15 play and provide economic development for California, as
16 well.

17 Funding allocation for innovative technologies,
18 this is a particularly interesting area, this is an area
19 that I think California is very well suited for and has a
20 long legacy in the innovative technologies, whether it is
21 aviation, aerospace, or information technology, California
22 has led the way over time, and I think this is a
23 continuation of that strong legacy that California has had.
24 We want to kind of tip our hat to that legacy and provide
25 funding, a fairly small amount at this point, but that we

1 expect that this is seed money and there are many others
2 that are interested in providing additional funding to this
3 category. We would be optimizing alternative and renewable
4 fuels, control systems, and fuel and vehicle integration
5 systems, advanced internal combustion engines resulting in
6 at least 40 percent efficiency, light weight materials,
7 energy storage, battery recycling and reuse, electronic and
8 electrified components, idle management technology and
9 aerodynamic retrofits that increase fuel consumption. We
10 also think there is a market out there for fuel switching
11 for existing vehicles, as well as new vehicles, and as a
12 market, we would like to see it explored, as well, when
13 platforms come in that have a long use, but need to be
14 repowered, say, diesel for a heavy-duty truck, that could
15 possibly be replaced with a natural gas energy system and
16 even perhaps some hybridization to improve the fuel economy
17 of those vehicles, as well. That gives the alternative
18 fuels a better leg up as far as efficiency, therefore
19 reducing its GHG profile, emission profile, and improves
20 efficiency over time.

21 Then the allocation for Market and Program
22 Development, we will be continuing these as I strongly feel
23 that the programs such as these need to be a strong platform
24 for the information development. As Charles mentioned, we
25 are going to embark on a program with the National Renewable

1 Energy Lab, we have also allocated funding in the previous
2 Investment Plan to the street model for UC Irvine, which
3 will be very helpful for the Department of Infrastructure
4 for all the alternative fuels that have done good work in
5 the hydrogen area in Southern California. We will be
6 expanding that for other alternative fuels and other areas
7 in California. But we at this point need to become a little
8 bit more visible out there and I am hoping that Program
9 marketing and public education and outreach can reach a
10 higher profile. We are allocating \$2.5 million to that for
11 the next year. Sustainability studies - sustainability
12 would be a strong component of this program for its
13 duration. I think it is important that we pay attention to
14 lessons that we have learned in the past with the other
15 fuels and make sure that each fuel that we engage with and
16 try to explore in the future becomes much more sustainable
17 over time. We do not want the status quo, we prefer to move
18 forward and improve those as we go forward, and we are
19 taking a very close look at that, making sure that we can
20 develop and achieve sustainability goals going forward, as
21 called for in our statute.

22 Technical Assistance and Environmental Market and
23 Technology Analyses, this is an important area. I think we
24 need to track our progress as we go, and we need to be
25 cognizant of developments outside our programs so that we

1 can assimilate those in, as well. With both of those things
2 done, I think we can have improved Investment Plans over
3 time that are strategic and useful, and that can actually
4 attract additional funding, we would like to leverage our
5 funds. If we do this right and in a strategic way, I think
6 we can leverage significant funding from other entities, be
7 they public or private. As we go forward, I think this is
8 going to be the key, the development of this information
9 base will be strong as we go forward, and we want to take
10 advantage of every opportunity in that regard.

11 That, in a nutshell is the Investment Plan for
12 next year. As I say, it is a Draft Investment Plan, we are
13 seeking and encouraging your comments and participation in
14 the process. We do have a docket, I am going to mention it
15 again, it is available on our website, energy.ca.gov, and
16 look at the docket submission aspect of that, we would love
17 to have your comments, that is really what helps us define
18 what will be best for this program in the future. Thank you
19 for your attention. I look forward to your questions.

20 MS. BAROODY: Thank you, Peter, for that very
21 thorough overview of the Investment Plan. And now we will
22 turn to some questions. If any of you have questions for
23 any of us on what we have presented, please feel free to
24 come up to the podium. We are going to turn it around for
25 you and we will take whatever time we need for questions.

1 We have the whole morning ahead of us. Just for the record,
2 if you could just say your name.

3 MR. GALLAHAR: Gilbert Gallahar with UTR Plus.
4 And to limit the interest of those that have started to
5 creep in is the definition of Alternative Fuels seems to be,
6 well, initially started as being very broad, natural gas,
7 LPG, ethanol, electric, and some of the [inaudible] [39:07]
8 that are being put out by ARB and South Coast now, it is
9 coming down that alternative fuels means natural gas, but
10 replacement fuels for gasoline becomes ethanol, you know,
11 one request is that you continue the broad base rather than
12 isolate it down to ethanol, and let the methanol continue to
13 compete rather than natural gas with propane continue to
14 compete, and so that is the request that you do not limit
15 that broad base that is out there, so that the people that
16 do not have the financing chain to try to present different
17 technologies. Thank you.

18 MR. WARD: Thank you for your comment. I think in
19 our program, we are trying to stay true to the statute and
20 list many alternative fuels, and in the statute, it says
21 "and others," and I am focusing on the others because I
22 think we do want a broad approach, we favor that, we are
23 also reminded in our statute not to pick winners, so we want
24 a broad portfolio approach, as a matter of fact, I am happy
25 you mentioned methanol, I have got a little history with

1 methanol way way back, and I think it is absolutely a viable
2 fuel, it could be produced from renewable sources, as well.
3 So we would entertain that, as well. If there are good
4 projects, we want to take a look at those.

5 MS. BAROODY: Are there any questions out there?
6 How about on the WebEx? Any questions? If you have a
7 question on the WebEx, just unmute yourself and go ahead.
8 Okay, well, if we have no further questions, then we can
9 proceed right to our public comment period. So Pilar has
10 some blue cards there and she will call out your name, and
11 if you would come up to the podium. If you have a
12 PowerPoint presentation, we will take a few minutes to give
13 those to Pilar. For those of you on WebEx, we are just
14 taking a few moments here to load up some of the PowerPoint
15 presentations, so it will take about five minutes to get
16 ready. Okay, go ahead.

17 MS. AMBOS: Good morning, Project Managers
18 Baroody, Smith, Ward, other members of the California Energy
19 Commission Board, staff, distinguished visitors here today.
20 Thank you for the invitation to present brief remarks on the
21 California State Universities' potential contribution to
22 infrastructure, applied research, and workforce development
23 for your Investment Plan on Alternative and Renewable Fuel
24 and Vehicle Technologies. My name is Elizabeth Ambos. I am
25 Assistant Vice Chancellor here in Long Beach at the System

1 Office for the California State Universities in the area of
2 Research Initiatives and Partnerships. With me today is Mr.
3 Len Pettis, Chief of Plant, Energy and Utilities, Capitol
4 Planning, Design and Construction. Also, Office of the
5 Chancellor, and two representatives of our Engineering
6 faculty in the Los Angeles region, we are pleased to have
7 Dean Forouzan Golshani of California State University, Long
8 Beach, and Dr. David Bleugman, Associate Professor in Power
9 Engine Energy and Transportation at California State
10 University at Los Angeles. Our goal in the next few minutes
11 is to present to you some of the opportunities we feel that
12 the California State University can contribute to your
13 efforts, and to emphasize that the strengths of the CSU and
14 other higher education such as the community colleges,
15 University of California, and private institutions, do need
16 to be more fully empowered and focused squarely on educating
17 the technicians, engineers, and managers that will be needed
18 to support these emerging industries. The California State
19 University feels it has a special responsibility as the
20 major source of degreed professionals in terms of
21 engineering, management, business, policy, life sciences,
22 which is a key source for the biofuel industry, and
23 agriculture. We are prepared to move quickly and nimbly to
24 help lead the technical workforce development. And we know
25 that we play a key role in applying both our applied

1 research strengths and workforce strengths, and in
2 partnership with our infrastructure on our campuses a living
3 laboratory, a test bed, if you will, for some of the
4 technologies that are subject in your Investment Plan. So,
5 again, our goal here today, is to present what we are
6 currently doing in terms of our general economic impact,
7 because our economic impact report just came out last week
8 proving a really high return on investments, so we have
9 specific education and research programs that relate to
10 alternative fuels, but we also have a track record of a very
11 strong return on investment, so we want to make sure that
12 you are aware of that. And secondly, to propose that the
13 Commission strengthen the focus in your Plan on workforce
14 development and that California State University can be
15 considered as a key partner, and that we can plan to develop
16 future degree and certificate programs at the Bachelors and
17 Masters level.

18 So in terms of the California State University,
19 for those of you that are not aware of our current status,
20 you can see the distribution on the right of our campuses up
21 and down the state, in fact, they are correlated with the
22 major transportation corridors in the state, and in the
23 major port areas in the state. And in addition, as the
24 largest list of those Bachelors granting, public higher
25 education system in the entire U.S., we serve more than

1 430,000 students, graduate more than 80,000 students per
2 year in Bachelors, Masters, and Certificate Programs, and
3 most important, for the future economic well-being of the
4 state, we are graduating more African-American and Hispanic
5 and American Indian students than all over public and
6 private California colleges and universities combined.
7 Specifically in '06-'07, we awarded 71,000 Bachelor's
8 Degrees, half of all Bachelor's degrees statewide, 18,000
9 Master's Degrees in '06-'07, around third of all Master's
10 degrees statewide.

11 At this point, I would like to invite to the
12 podium Dean Forouzan Golshani, who will speak a little bit
13 about the fields of endeavor in the CSU.

14 DEAN GOLSHANI: Thank you, Dr. Ambos. And good
15 morning, ladies and gentleman. Glad to be with you this
16 morning and talk about what we do on the education side in
17 order to prepare for an initiative of this magnitude in the
18 State. This is an important initiative and it is very much
19 on the radar of all of the fellow Deans, educating Deans, at
20 various campuses of CSU that Beth talked about. As you can
21 see, this is really a significant component in the workforce
22 development, particularly the areas that direct the impact
23 of an initiative like this. In many cases, we are right at
24 the center, or slightly, about 50 percent in the
25 introduction of graduates, particularly agriculture,

1 engineering, and health sciences, medicine. These are
2 significant factors. When we talk about, let's say, what
3 happens on our campus, the entire nation produces 50,000 or
4 so engineers, we graduate just 700 of them, just over 700,
5 in just one campus, that is one and a half percent of the
6 injection of new engineering workforce into the engineering
7 community. The various other campuses, the 500 or so, in
8 Sacramento, San Jose, San Diego, these are important factors
9 and I was pleased to see the education angle in the light
10 that you just heard. What is significant about what we
11 produce is the diversity and the fact that many of our
12 campuses are minority serving, Hispanic serving, and in the
13 case of, let's say, Long Beach campus in your backyard here,
14 there is no majority, it is truly a multi-cultural campus.
15 And those ratios are reflected on the kind of graduates that
16 we produce. So I wanted to thank you for the opportunity of
17 allowing us to present to you, and many of you know that we
18 stand ready to run along with you, and produce the kind of
19 graduates that those who partner with you in this initiative
20 can use. I would like to invite Mr. Len Pettis to continue.

21 MR. PETTIS: Good morning, and thank you for the
22 opportunity. In continuing on, we wanted to make the public
23 aware, and particularly the Commission, that we definitely
24 want to support you and engage you in this effort, and to
25 hopefully re-highlight some of the things that we hope that

1 you already know, and thank you for your support,
2 particularly on the first item with the work that has gone
3 on between Sacramento State and California Energy Commission
4 with the development of the Smart Grid Research Center. We
5 are very proud of that and we are working actively, as you
6 pointed out, Peter, we were not funded as we had hoped by
7 the Federal Government, though we are in search of matching
8 funds to make this important program go forward, and remind
9 you, as you well know, that it is a link to the alternative
10 fuels and energy storage areas, and such, and so forth. The
11 Environmental Research and Technology Innovation Center at
12 Chico State is another example, and Chico, one of the
13 campuses in our system, has been a significant leader in
14 sustainability and sustainability programs and bringing that
15 into the general education curriculum of student life
16 throughout the CSU. And that example has created some of
17 the waterfall effect. Long Beach is one of our newest
18 campuses, and has joined the Green Campus Program, and our
19 thanks and credit to the Alliance to Save Energy, CSU in
20 partnership with the U.C.'s began this program in 2004, in
21 partnership with the Investor-owned utilities, and we
22 received funding and to outside of the classroom efforts to
23 make students aware of the need to, you know, further
24 protect our environment. So they really do come up with
25 some very interesting and innovative programs and ideas that

1 we adopt and put into our program. Finally, our commitment
2 to institutional sustainability is really being reinforced
3 with our own policies and, of course, are very much in line
4 with the Governor's Executive Orders, our sustainable
5 design, we currently have about 33 facilities in the LEED
6 Program, and we are certifying projects on 16 campuses
7 throughout the system, and not mentioned here, but very much
8 on our forefront is how we are going to approach the new
9 California Green Building Standards that becomes mandatory
10 to comply with, come January. And then, finally, we have
11 two campuses currently right now and I am about to hand the
12 baton over to my good friend and colleague, Professor David
13 Bleugman at Cal State L.A., where, as you know, we also have
14 the hydrogen fueling station project going on at the Center
15 at Humboldt State University. And as I close, I would ask
16 you again, we applaud you in your efforts on the Investment
17 Plan. We would only ask that you consider enhancing some of
18 the effort put towards workforce development, and we are
19 happy to help see how we can improve those efforts and work
20 towards a common goal, so thank you. And let me introduce
21 David Bleugman, please.

22 DEAN GOLSHANI: Let me just close this segment by
23 talking about education and the general public awareness
24 about these programs, there are a number of initiatives that
25 my fellow Deans and I are engaged in, particularly that are

1 suited for government, high schools and middle schools
2 involved in what happens in higher education. This could be
3 a very very strong vehicle for reaching out to teachers,
4 empowering them and their high school students prepare
5 better for ideas like this. Here are a couple of examples
6 of what is happening with respect to summer training with
7 teachers, as well as students. Almost all of the campuses
8 have one or more programs like this and these could be a
9 good response to one of the last slides we saw with respect
10 to community awareness, general education, and community.
11 Professor Bleugman.

12 MR. BLEUGMAN: Good morning. As my colleagues
13 [inaudible] [56:26] today I would like to present a few
14 activities we have at Los Angeles campus where I work. We
15 just recently, starting in the fall of 2009, received
16 funding from National Science Foundation to establish a
17 Center for Energy and Sustainability. This is a five-year
18 effort. Hopefully it will continue for another five years.
19 The core is 14 faculty assembled by the engineering
20 departments and technology and other sciences, and we have
21 been [inaudible] [57:01], so there are four core projects,
22 photovoltaic materials, and the direct methanol fuel cells,
23 biofuels, and combustion, carbon sequestration, so those are
24 all important topics for CEC consideration. And also, this
25 has been a multi-year effort which I joined in 2007, to

1 bring hydrogen research and fueling facility on campus, so
2 we started construction, so that is an ongoing project, just
3 to highlight what we have been doing at Cal State Los
4 Angeles. Also, I would like to emphasize that it is
5 hundreds of students involved in research or various
6 projects and activities related to alternative and renewable
7 energy on our campus. And also, I would like to highlight
8 that Cal State L.A. is one of the minority serving
9 institutions, which is important from the Federal point of
10 view and from State point of view. And that brings our
11 comments to closure and I would like to thank you for the
12 time and opportunity to present California State University
13 System. We have great strength and many years of graduating
14 Bachelor's and Master's degree students. We are very active
15 in [inaudible] industry partnerships, partnerships with
16 community colleges, and University of California, and so we
17 would like to highlight that universities are relevant for
18 really hands-on laboratory for workforce in green
19 technologies in [inaudible] [58:52], so thank you for the
20 support in your Investment Plan to our system. Thank you.
21 Thanks also to my colleagues who also presented.

22 MS. BARODY: Thank you very much for coming today
23 and for presenting. We appreciate your time here.

24 MR. WARD: As a graduate of the CSU system, I want
25 to thank you for being here today and for mentioning my alma

1 mater, where I graduated twice from Chico, and we definitely
2 are keeping you in mind as we plan for the future, we need
3 to develop the minds and the workforce for the future, and
4 we look forward to a real partnership with you folks. Thank
5 you.

6 MS. BAROODY: Okay, we have another speaker,
7 Vasilios Manousiouthakis, I hope I said that correctly.

8 MR. MANOUSIOUTHAKIS: Yes, excellent.

9 MS. BAROODY: Great.

10 MR. MANOUSIOUTHAKIS: Good morning. Thank you
11 very much for giving me the opportunity to address you
12 today. They say that hydrogen is the fuel of the future,
13 and that can be taken both in a positive and negative way.
14 What I am here to tell you today is that the future is here
15 and it is now, and we need your help to make it happen. We
16 have been presented with a unique opportunity to essentially
17 change the way we deal with transportation in the United
18 States. It has been the dream of many folks for a long
19 time. And [inaudible] [1:00] over the last 15-20 years, has
20 reached the point where we are realizing that dream and
21 most, if not all, of the problems that are associated with
22 the deployment of hydrogen vehicles have been overcome. So
23 we are now at the crucial point in time where the major
24 driver is no longer technological development, that still
25 needs to occur, but it now relies on significant

1 infrastructure investment. I want to first give you a few
2 points about why hydrogen is going to be the fuel we will be
3 using. Hydrogen, of course, does not exist in nature, we
4 cannot envision it as anything but an energy carrier. We
5 have to find the energy and then transform it into the
6 emerging re-design in the vehicular committed transportation
7 energy, and hydrogen is just the tool to get us there. The
8 advantage that hydrogen has is that, first of all, it can be
9 produced from a variety of energy resources, some of them
10 can be fossil fuel based, and some renewable. But the
11 eventual deployment of hydrogen into the vehicle, in all of
12 these cases, you need to not [inaudible] [1:02] pollution.
13 So we are going to have to find and lead the way to solve
14 our air quality problems, especially in the large
15 metropolitan areas. We can then take care, if hydrogen is
16 produced from other either fossil fuel based sources or
17 carbon dioxide, [inaudible], these are no longer being done
18 at the vehicular level. So that is a great opportunity.
19 The other one is these large diverse energy resources that
20 can be brought to bear, which gives a social and economic
21 advantage. Right now, our classically derived fuels come
22 from a very limited number of sources. If you have the
23 ability to bring the renewables and the, in fact, economical
24 and renewable energy resources to the table to make your
25 fuel, that means prices will hit a very healthy environment

1 in which they will be operating. The estimates, actually,
2 by the National Academy are that we will be having crises
3 that are [inaudible] than the current prices of gasoline.
4 When we now combine this with the [inaudible] the last few
5 years, which is fuel cell technology, the advantages will
6 become even more pronounced because fuel cell cars are two
7 to three times more efficient than regular internal
8 combustion based cars. All of this has begun, but why this
9 is an even more important opportunity for California is
10 because we have been de facto selected by the automotive
11 manufacturers as the state in which this technology will be
12 first deployed, so we need to, as a state, I believe,
13 embrace that choice by the automotive manufacturers and try
14 to accelerate it. There is a very healthy possibility for
15 synergism there. Now, for research of the place, if the
16 automotive manufacturers are prepared to deploy the
17 vehicles, what should we be doing as a state, and in
18 particular in my case as an educational institution, you
19 should be preparing the people that will be engaged in this
20 technology, that will help accelerate the deployment. So we
21 have chosen to get to involve the university in the
22 hydrogen, in fact, we have created almost five years ago
23 hydrogen engineering consortium at UCLA, and we are in the
24 process of constructing the hydrogen fueling stations.
25 This, of course, will serve as a means of actually getting

1 hydrogen vehicles on the road, but it also serves as
2 educational in the research of the vehicle, because what we
3 want to do is we have [inaudible] producing hydrogen,
4 especially petrochemical business. But the scales in that
5 business are very large. We want also to explore the
6 possibility of producing the hydrogen in our local corner
7 fueling station where there is an investment and it needs to
8 be done there. We need to build many of these stations so
9 that hydrogen cars can go around the state, unlike electric
10 vehicles, hydrogen vehicles can be refueled in a short-term
11 basis. We can go and refuel the hydrogen fuel cell car in
12 five minutes, you cannot do that with an electric car. That
13 means, ecologically I could go throughout the United States
14 using a hydrogen car. The only thing that prevents me from
15 doing so is the inability to find hydrogen stations to fuel
16 up along the way. So it is essential that investment be
17 done by our state. [Inaudible] hydrogen need be potentially
18 cheaper, as I said before, than gasoline, but someone has to
19 put up the money to build all of these stations, and we have
20 to recover that cost, that will definitely slow down the
21 investment process. We have engaged in a number of
22 activities, both educational and business-wise, and in
23 particular in the application of fuel cell vehicles, we have
24 been collaborating with Daimler Corporation for some time.
25 Daimler has been building the fuel cell cars for a long time

1 and they should be working with hydrogen for a long time.
2 Throughout the world, they should put 2.7 million miles with
3 hydrogen transportation experience into fuel cell vehicles.
4 We [inaudible] and now these cars have ranges of over 200
5 miles per fill-up. So I think that the California Energy
6 Commission and the State, in general, as an agency, as I
7 said, has a unique opportunity that needs to be taken
8 advantage of, and I urge you to invest in hydrogen because
9 the future is now. Thank you.

10 MS. BAROODY: Thank you very much.

11 MR. WARD: Thank you. If I could ask you a
12 question. You mentioned that the dollars have to be put up
13 by the State. I would like to expand on that. I think for
14 a viable market, we are going to have to have a broader base
15 of funding for this. You did not mention private
16 investment, I think that is critical. The Federal
17 Government obviously has taken a pass recently, but I would
18 suggest that, to remain sustainable economically and viable
19 over the long term, I think we really need to attract
20 hydrogen investment for this to get the multitude of
21 stations that would be required. I think we are putting a
22 marker down in hydrogen right now, if I can say so, with
23 this solicitation, and I know this has been a while in
24 coming, and I hope that you will be focused on the
25 solicitation when it comes out next week, probably, and I

1 think we have got a bit of a different approach, but when
2 that is strategic and focused for the vehicle deployments, I
3 hope we have met that mark because it is our desire to be
4 successful for the next five years in the deployment, we do
5 seek partners in this, federally and in private investment,
6 as well, and maybe some regulatory relief that we would seek
7 to balance this with the current regulations under the
8 mandates.

9 MR. MANOUSIOUTHAKIS: I think this is great, this
10 is a good approach, and of course, I fully agree with it,
11 and in fact, when I expect the state to bring one to the
12 table, of course, it will have to be energy. So I
13 wholeheartedly agree.

14 MR. WARD: It is one of the biggest funding
15 categories we have in the Investment Plan right now, so just
16 to point that out. I think we are trying to do what we can
17 do, but we are trying to do this in a way that we can foster
18 partners with this, because we do not want to be the last
19 man standing here, that government should be joining in this
20 effort, I hope. Thank you for your comments.

21 MS. BAROODY: Thank you very much. Next up, we
22 have Richard Teebay, Los Angeles County.

23 MR. TEEBAY: Good morning. Thank you for letting
24 us speak today. Thank you for having this meeting in
25 Southern California. Travel is all but prohibited here at a

1 very high level. These are very important issues for us. I
2 wanted to speak to two things, first is the great need for
3 EV infrastructure, it is almost - I feel almost like Paul
4 Revere riding in saying, instead of "The British are
5 Coming," "The EVs are coming." The manufacturers, some of
6 them, GM for one, Nissan, another, have placed
7 extraordinarily large bets on the EVs. And without
8 infrastructure, we are putting at risk a failed launch, and
9 I think that is something that none of us wants, so I would
10 ask that you consider the great need for the EV
11 infrastructure. There is also another issue with EV
12 infrastructure and that is that a lot of the building
13 inspectors within the municipal organizations, as these
14 vacancies occur, they are not being filled because there is
15 no activity. So another need is going to be to educate the
16 building and safety people throughout the State so that, as
17 we begin installing infrastructure, we do not have
18 extraordinary battles within our own organizations. And
19 this will come in small moves. The economy is still far
20 from healthy recovery. And Governments who are typically
21 early adopters are instead slashing their budgets, and the
22 county, for example, has been very proactive, and one of the
23 places that is considered safest is public safety, but in
24 the prior year, the Sheriff's Department had 300 vehicles
25 cut out of their budget. In the current year, they had 150

1 vehicles cut out, an already reduced request, so these
2 things are getting pushed back. And when you get to the
3 bottom of the food chain, people like Parks and Recreation
4 and the Libraries, they are going to be particularly hard
5 pressed, and I think the park vehicles are an ideal
6 application for EVs. So clearly we need to have some
7 options, as agencies, and I think the Energy Commission has
8 a great opportunity here, those options might include
9 financing or, to borrow a page from the Air Resources
10 Board's hybrid program, vouchers which would assist the
11 local agencies procure these vehicles. And I have some
12 other ideas, but I would like to talk about those offline.
13 But I think there is a great opportunity for the Energy
14 Commission to really have an impact with the local agencies
15 and possibly open some eyes and open some doors that will
16 lead to greater adoption. And then I wanted to speak on
17 cleaner, lower carbon fuels. The county is not wedded to
18 any one particular strategy, we would love to have hydrogen,
19 but that is kind of - that is something that is a little
20 beyond our means at the moment. So to that area, I would,
21 1) ask that you consider funding the CNG tank replacements
22 on the school buses and, again, I would ask that you
23 consider something like the voucher program so the school
24 districts do not have to do an out-of-pocket, they get it
25 approved in advance and, instead of a doling scenario, that

1 they could simply take it in, sign for the work that has
2 been done, that they accepted the work, and then the Energy
3 Commission can pay them directly, rather than to pay the
4 vendor first, and then to seek reimbursement. I think that
5 would streamline the process greatly. You would, of course
6 have to pre-screen the vendors, but it is not like there are
7 going to be a lot of people who are going to be doing tank
8 replacements. The other issue that I would speak to is
9 ethanol tanks. There is some ongoing issue with siting
10 underground ethanol tanks, and so, as a near term solution,
11 I would suggest that the Energy Commission facilitate the
12 use of above-ground tanks. The Water Board would consider
13 that a great blessing, and because they are concerned about
14 the fuel leaching into the soil, as MTBE did a decade ago.
15 But they had no authority over above-ground tanks, and they
16 see that as an excellent solution, a very viable solution.
17 But for an agency, the agencies right now do not have the
18 capacity to install either above-ground or underground
19 tanks. So one option would be to use an above-ground tank
20 if there is a public-private partnership, or as a lease
21 purchase and to facilitate that through local agencies. And
22 I would probably throw a little extra weight toward
23 something that could also be available that would have
24 public dispensers, as well as just a particular agency. I
25 would also ask that you consider things like vouchers,

1 particularly for things like EVs, or for some of the other
2 alternative fuels for hybrid vehicles. Right now, Nissan
3 has announced pricing on the Leaf at about \$33,000. It is
4 subject to a \$7,500 tax credit. The local agencies do not
5 pay income taxes, so therefore they are not eligible for
6 that \$7,500. They would be able to get \$5,000 that is
7 available from the Air Resources Board, but that still makes
8 it a very difficult sell. So what I would ask, again, is if
9 there were financing options, that you could make this part
10 of an educational program, or an outreach program, where you
11 could facilitate the financing for the local agencies, or if
12 you could make some additional funding available through a
13 voucher that would make it more competitive and make it more
14 in reach. This would greatly facilitate the adoption of the
15 EVs and other alternative fuels. Again, thank you very much
16 for having this meeting in Long Beach, and thank you for
17 allowing us to speak.

18 MS. BARODY: Thank you. If there are no more
19 blue cards, oh, there is one. Come on down. If you could
20 just introduce yourself.

21 MS. SHEIKH: Hi. My name Mayra Sheikh. I am a
22 [inaudible]. For starters, I would like to commend the CEC
23 for all they have done recently, and we have seen a lot of
24 them at meetings because we are [inaudible] directly impacts
25 us and it definitely benefitted from certain activities and

1 that has helped us grow jobs in our local region, which has
2 been very beneficial for Southern California. I would just
3 like to make a brief comment about how, though everything is
4 great, but I am sure there are other things that would
5 probably help the local manufacturers. For example, we have
6 rebates on Priuses, electric vehicles, and I know even ARB
7 has the voucher program for trucks; however, all those are
8 kind of late in the sense of the overlying - regardless of
9 whether technology is manufacturing, if we put in a
10 preferential clause for technology manufactured within
11 California, that would help establish California
12 manufacturers just in the efforts of, you know, [inaudible],
13 so say Prius has a \$1,000 rebate, put whatever value you
14 want, if a California manufactured component gets a higher
15 rebate, it helps establish manufacturing within California
16 for the long term, helping also the developmental costs that
17 many companies face in developing these technologies. And
18 it is not just a [inaudible], it is for, you know, truck
19 stop electrification, it is for the Smart Grid, it is the
20 same kind of thing. If they develop it here, it stays for
21 the long term, vs. if we just promote the technology and
22 micro manufacture it to us where, in the long term, it
23 channels California outside of the state. And that is it.
24 Thank you.

25 MS. BAROODY: Thank you very much.

1 MR. WARD: Thank you for your comment. You know,
2 I think what we are going to try and do is handle the
3 expansion and the setting of new manufacturing through our
4 program for manufacturing vehicle components. I know we
5 were kind of shut out from the federal government play in
6 that, we had a lot of very good proposals, one from your
7 company, as well.

8 MS. SHEIKH: Right.

9 MR. WARD: And we want to be engaged with you to
10 see if we can help you in your expansion and help other
11 companies come to California. I think we will see that side
12 of the fence, and then make available incentives for all the
13 vehicles of all different stripes here in California, but
14 hopefully that the manufacturing help on the facilities is
15 going to accomplish the same thing where we may not be able
16 to do the preferential for each of the products, but those
17 are good ideas, worth considering, and we will take a look
18 at it, absolutely.

19 MS. SHEIKH: Thank you. And we definitely
20 appreciate all the help we have received.

21 MR. WARD: Great. Thank you.

22 MS. BAROODY: Thanks. Now we have Dave Rubenstein
23 with California Ethanol and Power.

24 MR. RUBEINSTEIN: I just want to start by saying
25 thank you very much to the Commission for everything you

1 have done to help our program over the past few years, we
2 have been working on this for three years, and it is a sugar
3 cane to ethanol facility, it has become a much bigger animal
4 than we ever thought in terms of the electricity we have
5 been able to produce, we have been able to produce
6 biomethane from anaerobic digestion, and unfortunately we
7 cannot get that into the vehicle market. We are working
8 with a major oil company that wants to take and put a
9 pipeline for power - for the power plants. So some of the
10 things that we are running around and thank you for the 4:00
11 deadline. We are hoping to get a solicitation in today, so
12 they are working on it right now. But one of the things
13 that we have seen in the solicitations, we believe that in
14 terms of the match funding, they would really benefit us, in
15 particular, if it was not tied to a specific window when the
16 contract is being written because we spend so much money
17 trying to get familiar at the beginning to the end and I do
18 not know how much more that our project, in particular, but
19 the development period is really the blueprint for the first
20 plant, and we think it can be replicated three, four, five
21 times in the state before we start encroaching on food land
22 instead of growing the sugar cane or sweet sorghum. So
23 getting the development period finally off the ground, it
24 has been a three-year project and specifically getting the
25 matching funds into the window of the contract, it would be

1 nice if we could expand that for monies already spent, or
2 money that we see, but will be spent, maybe, you know, rank
3 up patrolling on that, so if you could think about that as
4 you go into the new program, that would be quite helpful, as
5 well. Again, I cannot thank you guys enough for helping us
6 out and always putting more money in the biofuel side is
7 always appreciated, we understand that there are other
8 people at the table, too. So we look forward to keep on
9 moving forward. Thanks.

10 MS. BAROODY: Thanks.

11 MR. WARD: Thanks for your comment. I am not sure
12 to what extent we are bound by statute to provide funding
13 for the project specific as the time that we provide the
14 funding and the match that is required during that period of
15 time, but we will take a look at that and see if there is
16 something that we can do. And actually, I think we want to
17 help with pre-development feasibility, as well, in a
18 different category, so I think we are trying to address
19 that, if we are not able to on a project-by-project basis,
20 for construction. Thanks.

21 MS. BAROODY: Thank you. Anybody else like to say
22 anything? How about on WebEx? Anybody there? Okay, if
23 anybody on WebEx would like to speak, please go ahead.
24 Well, I guess we are winding it up earlier than we expected
25 today. I just want to thank you all for coming out, for

1 participating, we really appreciate your comments. And if
2 you are not on our Listserve, I encourage you to sign up on
3 our website. If you go to our website, there is a place for
4 a Listserve sign-up and you can select which areas you would
5 like to receive e-mails on. And we will be sending out
6 notices for an upcoming possibly a public hearing in July,
7 and then any information on the Investment Plan will be
8 coming straight to you on the e-mail. So thanks again for
9 being here.

10 MR. WARD: I would also like to mention, again,
11 the docket, we do want to hear from you, it is still open,
12 it will be remaining open - I cannot imagine that we would
13 close it for this program, we want to hear from you around
14 the clock, and that is always an open invitation. So as we
15 go forward, we always want to hear. I think all the
16 contract information is available on the website, as well.
17 So please do not hesitate and, again, thank you all for
18 coming out and taking your time today to join us. We look
19 forward to your comments in the future.

20 MS. BARODY: I see we have an abundance of
21 Investment Plans up there that we would rather not haul back
22 with us to Sacramento, so please feel free to grab a few and
23 pass them around.

24 MR. WARD: Everybody has already read that.

25 MS. BARODY: Give them to your friends and

1 neighbors.

2 MR. WARD: Tell everybody you know. Thank you.

3 (Whereupon, at 10:25 a.m., the workshop
4 was adjourned.)

5 -o0o-

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24