

BEFORE THE
CALIFORNIA ENERGY COMMISSION

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

INVESTMENT PLAN PUBLIC WORKSHOP

Stockton, CA

TUESDAY, MAY 25, 2010

9:00 A.M.

Reported by :
Tahsha Sanbrailo

APPEARANCES

CEC

Leslie Barody

Charles Smith

Peter Ward

Pilar Magana

Public

Susan Patterson, Gas Technology Institute

Russell Teal, Biodiesel Industries

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

2 MAY 25, 2010

9:00 a.m.

3 MS. BAROODY: Well, good morning to all of you
4 here today. We are really glad that you came out for this
5 workshop. We also have some people on WebEx today, so
6 welcome to you, as well. Just for your information, this
7 session will be recorded.

8 I am Leslie Baroody. I am Project Manager for the
9 2010-2011 Alternative and Renewable Fuel and Vehicle
10 Technology Program. And we are just glad to be here in
11 Stockton and we are thankful to the San Joaquin Council of
12 Governments for allowing us to use this very nice facility.

13 Our agenda today will include an overview of the
14 AB 118 program, the funding status, and the 2010-2011
15 Investment Plan. We will have time for questions and then a
16 public comment period. After I review the AB 118 Program,
17 we will have Charles Smith, our Co-Project Manager for the
18 Investment Plan, come and review the status of AB 118 funds,
19 followed by our Program Manager, Peter Ward. And he will
20 review the 2010-2011 Investment Plan. After staff's
21 presentation, we will answer any questions you have and, if
22 we have time before lunch, we will go ahead with public
23 comment. If you would like to speak during the public
24 comment period, we have blue cards that you can fill out and
25 hand over to Pilar or Charles, and if you are on WebEx and

1 would like to speak, please let Pilar know.

2 Okay. I will try to get my PowerPoint to work
3 here. The Alternative and Renewable Fuel and Vehicle
4 Technology Program was established by Assembly Bill 118 in
5 October of 2007, and later amended by AB 109 in 2008. The
6 purpose of this program is to develop and deploy innovative
7 technologies that transform California's fuels and vehicle
8 types to help attain the State's climate change policies.
9 Since 2003, key policies have been adopted in California to
10 achieve the State's petroleum reduction and climate change
11 goals. Prior to AB 118's adoption, Executive Order S 305
12 established the goal of petroleum fuel use reduction to 15
13 percent below 2003 levels by 2020. In 2006, AB 32 was
14 adopted, which established the goal of reducing greenhouse
15 gas emissions in California to 1990 levels by 2020, and 80
16 percent below 1990 levels by 2050. AB 1007, the Pavley
17 Bill, adopted in September of 2005, required the Energy
18 Commission to develop a plan to increase the use of
19 alternative fuels in California. The resulting State
20 Alternative Fuels Plan set a goal of increasing alternative
21 and renewable fuel use. Finally, Executive Order S 606
22 established an in-state biofuels production goal of
23 producing in California 20 percent of biofuels used in-State
24 by 2010, 40 percent by 2020, and 75 percent by 2050.

25 In order to provide a market mechanism to carry

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

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

25 The Energy Commission is required to develop and

1 adopt an annual Investment Plan which determines the
2 priorities and opportunities for program events. This plan
3 must include input from an Advisory Committee throughout its
4 development. The process of developing the Investment Plan
5 involves stakeholder input via workshops, a public docket,
6 and Advisory Committee meetings. For the 2010-2011 Plan, we
7 conducted five public industry workshops last fall for each
8 of the fuel types and have held two Advisory Committee
9 meetings since then. Currently, we are conducting three
10 public workshops and that will be followed by a 30-day
11 public review period before adoption.

12 As you can see by the schedule, after this
13 workshop, we will have one more to be held in San Francisco
14 at the CPUC on Thursday. We will then incorporate any
15 changes into the Investment Plan and post it on our website
16 at the end of June. And then, during the 30-day public
17 review period, we plan on having a public hearing in mid-
18 July followed by the Energy Commission adoption of the plan
19 at the end of July. So, once again, we really appreciate
20 your presence here and now I would like to welcome Charles
21 Smith.

22 MR. SMITH: Hi. I am Charles Smith, thank you,
23 Leslie. I would like to go through a brief walkthrough of
24 our funding summary for the program so far, so these are
25 funds that have been allocated based on the previous

1 Investment Plan. First of all, we have spent \$50 million on
2 workforce development through a series of agreements. We
3 had an ARRA cost sharing proposal a few months back. We
4 spent about \$36.5 million on projects that received Federal
5 funding through the American Recovery and Reinvestment Act.
6 For our \$36.5 million, we received federal contributions of
7 about \$93.6 million. We have closed three PONs for \$44.8
8 million, so about \$21.5 million for biomethane production
9 facilities, \$9.5 million for medium- and heavy-duty
10 vehicles, and \$13.8 million for fuel infrastructure for a
11 variety of fuel types - natural gas, ethanol, electric, and
12 so forth. We have also developed an interagency agreement
13 with the State Treasurer's Office, and this includes a
14 Master Agreement for \$39.9 million, of which we have two
15 closed PONs, they closed just last Monday, I believe -
16 sorry, last Thursday. Those would be for new biofuel
17 plants, \$14.9 million, and in-State manufacturing facilities
18 for \$19 million. And then we have an Ethanol Producer's
19 Incentive Program that will fund up to \$6 million, and I say
20 "up to" because that program will provide a per-gallon
21 incentive based on the market value of ethanol. It will
22 also help producers transition to advanced fuels and
23 technologies.

24 In the future, we have \$6.6 million allocated
25 towards developing medium- and heavy-duty vehicle Center of

1 Excellence, \$22 million for hydrogen fueling infrastructure,
2 of which \$3 million we are intending for an interagency
3 agreement with AC Transit and the other \$19 million will be
4 released in a Program Opportunity Notice, \$2 million will go
5 towards propane school bus incentives, \$2 million will
6 assist us in our sustainability analysis, \$4 million has
7 actually just been approved at a recent Energy Commission
8 Business Meeting, and that will be with the Division of
9 Measurement Standards to help develop appropriate standards
10 for biodiesel and hydrogen fuel. And then, finally, \$1.45
11 million for the National Renewable Energy Laboratory and UC
12 Irvine street model, to help us with our technical analysis.
13 At this point, I would like to turn it over to Peter Ward,
14 who will provide a summary of the new Investment Plan for
15 Fiscal Year 2010-2011.

16 MR. WARD: Thank you, Charles. Good morning,
17 everybody. Thanks for coming. I would like to go over the
18 Investment Plan, a summary for the allocation for Fiscal
19 Year 2010 and 2011, and the funding allocation methodology
20 is one that we are sticking to from the first Investment
21 Plan, where we set out a methodology to capture the most GHG
22 reductions for the year 2020 that triggers AB 32 and 2050,
23 that was a goal devised by the Governor's Executive Order to
24 achieve a 80 percent below 1990 levels by the year 2050. We
25 performed a gap analysis in the First Investment Plan, as

1 well, and that is to determine the available gaps, that is
2 the strategic use of ARRA funding that would fill those gaps
3 that are left by public and private investments in these
4 fuel areas and technology areas. And then we have a section
5 in our Investment Plan that goes into the non-GHG categories
6 in the program, or market development support.

7 Funding allocation for electric drive is proposed,
8 as Leslie mentioned, this is the proposed Investment Plan,
9 it will go through a public review and become a
10 transportation committee document for approval in late July.
11 The development and demonstration of advanced on- and non-
12 road medium- and heavy-duty technology is slated at \$14
13 million; infrastructure-related activities, \$3 million, and
14 manufacturing facilities and equipment, \$7.5 million. The
15 manufacturing facilities and equipment is a follow-on,
16 actually all three of these are follow-on activities from
17 the first Investment Plan, and we just received proposals on
18 manufacturing facilities for medium- and heavy-duty
19 demonstrations, as well.

20 The funding for hydrogen, next year, is for
21 infrastructure, \$14 million. Of that, there will be an
22 amount that is in place for now, and we hope that we will be
23 getting a lot of responsive proposals for hydrogen
24 infrastructure on a \$19 million Program Opportunity Notice
25 that we plan to release on Thursday. We do expect that that

1 will be focused on the clusters of vehicles that are
2 clustered in the Southern California area, the Bay Area, and
3 in the Sacramento area, and justified by the number of OEM
4 fuel cell deployments so that we can match that with needed
5 infrastructure to assure that the commercialization of fuel
6 cell vehicles has a smooth trajectory.

7 Funding allocations for gasoline substitutes, this
8 has a different name; in the past we have called it
9 "ethanol," but we understand that it is a broadening world
10 for gasoline substitutes, it may be "ethanol," it may be
11 some other renewable fuels, bio-butanol, and others. The
12 expansion of the E-85 dispensers and retail outlets is
13 slated at \$8.5 million, gasoline substitute production in
14 California at \$10 million. This probably would go on as an
15 add-on to the agreement we have struck with the Office of
16 the State Treasurer for loan guarantees and low-interest
17 loans for production facilities in California. We also have
18 funding available for pre-development feasibility for
19 renewable feedstocks and better feedstocks as we improve the
20 GHG profile of these gasoline substitutes over time.

21 Funding allocation for diesel substitutes, diesel
22 substitute production, \$5 million, and again, we will be
23 emphasizing the use of lower GHG or lower carbon feedstocks,
24 primarily from the waste resources, but from others, as
25 well, and continuing with funding for bulk terminal storage

1 and blending facilities, we had \$4 million available in the
2 current Investment Plan, and we have announced projects that
3 basically would expend all \$4 million, and we are continuing
4 that category into the 2010-2011 Fiscal Year, as well, for
5 \$5 million.

6 Funding allocation for natural gas, medium- and
7 heavy-duty vehicles, is \$12 million. Upgrades to fueling
8 stations is \$2 million. We see this as an emerging need,
9 the upgrade of the fueling facilities, many of the public
10 entities, public cities, counties, and local governments,
11 and school districts have invested in fueling stations for
12 natural gas and we would like to make sure that those
13 continue operation. Some of those have to re-tank or can
14 refurbish, upgrade, we would like to see that that is
15 accomplished so that those fleets can continue to provide
16 natural gas to their buses and their white fleets in the
17 cities and counties.

18 Biomethane production was a very successful
19 solicitation that we had in the first Investment Plan at
20 \$21.5 million. We have funded four projects totaling about
21 \$21.5 million, so we are continuing this category with an
22 additional \$10 million this next fiscal year.

23 The funding allocation for propane is \$3 million
24 for light- and medium-duty vehicles. This continues the
25 propane available for school buses and, as light-duty

1 vehicles, this could be pick-up trucks or shuttles in the
2 shuttle fleets, and we have \$3 million available for that.

3 Funding allocation for innovative technologies,
4 this is something that is also a continuation, we are trying
5 to establish Centers of Excellence and provide additional
6 innovative support for the technologies and fuels as we go
7 forward. We would like to optimize the alternative and
8 renewable fuels, control systems, and vehicle fuel
9 integration systems, advanced internal combustion engines
10 resulting in a 40 percent efficiency improvement, light
11 weighting in materials, energy storage, battery recycling
12 and reuse, electronic and electrified components, and idle
13 management technology and aerodynamic retrofits that
14 decrease fuel consumption. This is a category for a total
15 of \$3 million.

16 Funding allocation for Market and Program
17 Development, program marketing and public education and
18 outreach, \$2.5 million, sustainability studies, \$2.5
19 million. I should mention, the sustainability aspect of the
20 program is very important to us. We want to make sure that
21 we establish fuels and vehicle technologies that are far
22 more sustainable than we have in the past, and so we are
23 looking at that and we have underway the setting of
24 particular goals so that we can improve year to year on the
25 sustainability profile of the alternative fuels and advance

1 vehicle technologies.

2 Technical Assistance and Environmental Market and
3 Technology Analyses, \$6 million. This is an important
4 category so that we can make sure that the program is well
5 informed as we go forward, and take advantage of all of the
6 latest developments in fuels and vehicle technologies, and
7 they can therefore be assimilated into the program and
8 program offerings that we have in future years.

9 That concludes the -- in a nutshell version - of
10 the 2010-2011 Investment Plan. And I think we can take
11 questions. If you signed that blue card, we will go through
12 those blue cards.

13 MS. PATTERSON: I have a question.

14 MR. WARD: Yes, is that Susan Patterson?

15 MS. PATTERSON: Yes, Susan Patterson with the Gas
16 Technology Institute. Good afternoon - good morning. Susan
17 Patterson, GTI. The slide that says Anticipated Future
18 Funding, can you tell me what the time period is for that,
19 the release of that money? Is that '09-'10 money?

20 MR. WARD: Which slide?

21 MS. PATTERSON: It says "Anticipated Future
22 Funding," yes, that one. Will those be released in the next
23 few months?

24 MR. WARD: Yes.

25 MS. PATTERSON: And it is '09-'10 money?

1 MR. WARD: It is '09-'10 and in some cases - I
2 guess it is all '09-'10 because we think we have already
3 encumbered up for '08-'09.

4 MS. PATTERSON: And the release of this would be -
5 the Program Opportunity Notices would be?

6 MR. WARD: Soon.

7 MS. PATTERSON: Soon.

8 MR. WARD: Well, the medium- and heavy-duty Center
9 of Excellence, has that been released yet? I think that has
10 been released. The hydrogen solicitation will be released
11 Thursday. Propane school bus incentives are being readied
12 right now. Division of Measurement Standards was approved
13 at the Business Meeting last week. And the NREL and UCI
14 street model, those are underway. We are just drafting
15 agreements for those right now.

16 MS. PATTERSON: So those, for instance, need to be
17 released by the end of the fiscal year, June 31st?

18 MR. WARD: By the end of this next fiscal year,
19 yes.

20 MS. PATTERSON: Okay. And so the Investment Plan
21 summary that you have just been outlining because available
22 in July for 2010-2011?

23 MR. WARD: Yes, July 1, in theory.

24 MS. PATTERSON: Yeah, maybe a little later.

25 MR. WARD: It depends on when they sign the

1 budget, which may be after the 1st of July.

2 MS. BAROODY: The Investment Plan will probably be
3 approved at the end of July.

4 MS. PATTERSON: Okay. And my last question, can
5 you explain what the Medium- and Heavy-Duty Vehicles Center
6 of Excellence is? And when that would be released?

7 MR. WARD: What we are trying to establish here is
8 California's leadership position in technology development,
9 as we had a legacy for aviation, aerospace, and IT, we want
10 to continue this through the Medium- and Heavy-Duty Center
11 of Excellence. This is establishing such a center that can
12 do a host of things for medium- and heavy-duty vehicle
13 technologies. We hope this can be kind of a host site in
14 the future where the technologies are evaluated and
15 improved, kind of like, if you will, a Skunk Works, it is
16 not really that analogous, but it is that sort of thing, and
17 this could be a potential conduit for funding demonstration
18 projects. This establishes that Center of Excellence so
19 that these different and worthy technologies can be brought
20 forward through the Valley of Debt to pre-commercial
21 demonstration, and demonstration to commercialization.

22 MS. PATTERSON: So it is not a technology
23 development opportunity, it is a creation of a host site/ --

24 MR. WARD: Well, it could be a virtual host site,
25 I do not think we are being specific as to an address, but

1 what we do want it to be is bringing these technologies
2 along, this is kind of where the technologies are applied
3 science at this point, maybe may have value in the future,
4 but we would not know that until we get to demonstration,
5 and so we would like to have kind of a sanctuary where these
6 technologies can be fostered and brought to pre-commercial
7 demonstrations. And our program, well, for the most part it
8 funds commercial applications. We can go back as far as to
9 R&D, and RD&D being the demonstrations. So we are cognizant
10 of the continuum that we want to make sure that these things
11 make it through from pure R&D all the way to
12 commercialization, those that are viable. And this would be
13 a help to that, and we think it could be, once established,
14 a conduit to the potential funding of projects. These
15 centers could propose demonstration projects that would
16 carry it from their work on into pre-commercialization.

17 MS. PATTERSON: Thank you.

18 MS. BARODY: Thank you. Any other questions?

19 MS. MAGANA: I have one on the phone.

20 MS. BARODY: Questions on the phone, on the
21 WebEx?

22 MS. MAGANA: Russell Teal?

23 MS. BARODY: Okay, go ahead, Russell.

24 MR. WARD: Hello, Russell.

25 MR. TEAL: Hi Peter, this is Russ Teal from

1 Biodiesel Industries. You know, given the fact that CARB
2 has done the Low Carbon Fuel Standard analysis for biodiesel
3 [inaudible] and found that it is the second best mitigant of
4 greenhouse gases, I am wondering why there is so little in
5 the budget for diesel substitutes, and in particular,
6 biodiesel from advanced feedstocks.

7 MR. WARD: Well, we have tried to assimilate what
8 is available in the industry and what is needed in the
9 industry, and it is comments such as the one you just made
10 that we are guided by. Apparently we may not have heard
11 other opportunities, and this is why this is the iterative
12 process, though we are close to going out to a Draft
13 Investment Plan, we are hoping to get the comments just
14 similar to that which you have just made. We are open to
15 that. I think in the biodiesel production area, or the
16 diesel substitute production area, we are open to exploring
17 different feedstocks, renewable and purpose grown crop
18 feedstocks that would provide lower carbon clean fuels. So
19 I think we are still open to that, but we would certainly
20 welcome your comments to our docket. I think that is
21 something I do not think we have mentioned - that we do have
22 an open docket for this process. It is available on our
23 website, if you can provide us your good suggestions for the
24 project areas, as I mentioned, we are guided by the
25 methodology to attain the highest GHG reductions, but we

1 also have to marry that up with what are the most viable and
2 needed projects in the California landscape right now, so it
3 is the combination of those two, the methodology and hearing
4 of the good project opportunities that are out there for us
5 to fund. So as we do our Investment Plans year to year, we
6 are hoping to marry those both up to make sure that we hit
7 the market and hit the need out there. So your suggestion
8 is a welcome one, Russ.

9 MR. TEAL: Thanks. Well, I will make sure that
10 you get that in writing, as well, and in some more detail.

11 MR. WARD: Great, thank you.

12 MS. BAROODY: Any other questions? If not, if
13 not, oh, everybody is unmuted on the WebEx, so if you have a
14 question, please go ahead. Okay, well, it looks like we can
15 move right into our public comment time. And if there is
16 anybody here that would like to make a public comment, now
17 is the time. Either of you? Anybody on the WebEx?

18 MR. WARD: It is heartening to know that we have
19 met the measure and hit the mark for our Investment Plan,
20 and that we have completely enunciated it clearly to
21 everyone, that there are no questions.

22 MS. BAROODY: Or comments.

23 MR. WARD: Or even comments. I think we got it
24 right, we presented it clearly, and we anticipated
25 questions.

1 MS. BAROODY: Okay, well, if there are no further
2 questions or comments, I think we will adjourn the meeting.
3 And once again, we encourage you to submit comments to our
4 docket and, also, if you would like to be on our Listserve,
5 please go to our website and there is a place to sign up for
6 the Listserve. So thank you, once again, for being here
7 today. We really appreciate it.

8 (Whereupon, at 9:28 a.m., the workshop was adjourned.)

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