

COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Proposed Adoption of Regulations for) Docket No.
the Administration of the Alternative) 08-OIR-1
and Renewable Fuel and Vehicle)
Technology Program)
_____)

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

TUESDAY, JULY 8, 2008

10:07 A.M.

Reported by:
Peter Petty
Contract No. 150-07-002

COMMISSIONERS PRESENT

James D. Boyd, Presiding Member

Karen Douglas, Associate Member

ADVISORS PRESENT

Susan Brown

Kelly Birkinshaw

Diana Schwyzer

STAFF and CONTRACTORS PRESENT

Mike Smith

Aleecia Macias

Jim McKinney

PUBLIC ADVISER

Elena Miller

ALSO PRESENT

Andrew E. Panson
Johanna Levine
California Air Resources Board

Danielle Fugere
Friends of the Earth

Justin Rathke
Capstone Turbine Corporation

Allan Lind
California Council for Environmental and Economic
Balance

John Shears
Center for Energy Efficiency and Renewable
Technologies

ALSO PRESENT

Joshua Goldman (via teleconference)

Charles Powars (via teleconference)

Eric Wong (via teleconference)

Stephen Kaffka
University of California Davis

Phil Englander
Galpin Ford

Garrett Stone
Aspire Corporation

Dave Rubenstein (via teleconference)
California Ethanol Power

Karen Hay (via teleconference)

Rob Mercer (via teleconference)

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

2 10:07 a.m.

3 PRESIDING MEMBER BOYD: Well, good
4 morning, everybody. Welcome to this Energy
5 Commission Committee workshop on the subject of
6 proposed regulations for the administration of the
7 alternative and renewable fuel and vehicle
8 technology program, or as we say in shorthand, the
9 AB-118 program.

10 I'm Jim Boyd, Commissioner at the
11 Commission, and --

12 ASSOCIATE MEMBER DOUGLAS: Presiding.

13 PRESIDING MEMBER BOYD: -- Presiding, I
14 can't get the word out. The smoke, it's just
15 killing us -- Presiding Member of the
16 Transportation Committee. And I'm joined up here
17 by the Associate Member of the Transportation
18 Committee, Karen Douglas.

19 I'm going to do introductions of the
20 folks at this table; and I'm going to ask the
21 folks over there to introduce themselves, our
22 friends from the ARB, after I make a couple of
23 remarks and call upon Commissioner Douglas.

24 But first, just by way of introduction,
25 to my immediate right are my two Advisors, Susan

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1 Brown, my Principal Advisor, and Kelly Birkinshaw,
2 my other Advisor. And, of course, to my left
3 Commissioner Douglas and her Advisor, Diana
4 Schwyzer.

5 So, we are folks who pay an awful lot of
6 attention to what's going on with regard to the
7 AB-118 program. This is to be a workshop. You
8 note we're not up at the dais. I'd like to keep
9 this as informal as humanly possible. Make it
10 seem almost like a staff workshop, but we two
11 Commissioners are so interested and involved in
12 this topic that we wanted it to be a Committee
13 workshop.

14 But we want to have as much dialogue and
15 exchange as possible, although we do record these
16 workshops for purposes of having a record of what
17 went on. And so if you do have something to say,
18 we ask you to please find a microphone, come to a
19 microphone. Just raise a hand in the audience
20 here if you want to make a comment before the
21 public testimony period, and we'll see that you
22 get an opportunity to say something.

23 The purpose of a workshop is to have

24 that kind of a free-flowing exchange on concepts,
25 draft concepts that have been put out for

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1 commentary.

2 This AB-118 program is very important to
3 the State of California, to this agency, to the
4 Air Resources Board, probably to multiple
5 agencies, as it addresses the major issues of the
6 day. Some of them are old issues that have been
7 with us for years, such as air quality and energy
8 security through energy diversity.

9 The newer issues, of course, climate
10 change and the desperate need to reduce our
11 dependence on petroleum. And to seek energy
12 security through energy diversity.

13 This program will address all of those
14 objectives. Mike Smith, in his presentation of
15 staff, will go more deeply into that. But, as you
16 know, the law did require we do some of this in
17 accordance with regulations that we propose, and
18 the purpose of this workshop is to work on those
19 regulations and try to get them as close to final
20 as possible before we release them for a public
21 hearing and adoption by the Commission, itself.

22 So, with that, Commissioner Douglas, any
23 comments you'd like to make? And then we'll ask

24 our folks, guests and staff, to introduce
25 themselves at the table here.

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1 ASSOCIATE MEMBER DOUGLAS: Very good,
2 thank you very much. I actually don't have long
3 opening comments. I'd like to welcome everybody
4 here, particularly the members of the public, who
5 we're very much looking forward to hearing from.

6 We've been looking forward to having
7 this workshop and really launching this program.
8 So pleased to see a good turnout. Look forward to
9 hearing from you.

10 Thank you.

11 PRESIDING MEMBER BOYD: So, can we have
12 our friends and guests from the Air Resources
13 Board introduce themselves.

14 MR. PANSON: Andy Panson with the Air
15 Resources Board. And I'm working on developing
16 and implementing ARB's part of AB-118, which is
17 the air quality improvement program, as well as
18 developing the anti-backsliding air quality
19 guidelines which affect both the ARB program and
20 this program. And Mike's going to touch on those,
21 I think, briefly, during the presentation.

22 So we're here to address any questions
23 that may come up regarding those air quality

24 guidelines.

25 MS. LEVINE: Johanna Levine with the Air

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1 Resources Board, and the lead staff on the air
2 quality guidelines.

3 MS. MACIAS: Aleecia Macias with the
4 California Energy Commission Emerging Fuels and
5 Technologies Office.

6 MR. MCKINNEY: And I'm Jim McKinney,
7 Staff in the Transportation Fuels Division; and
8 I've been the staff lead on the sustainability
9 issues for AB-118.

10 PRESIDING MEMBER BOYD: Thank you,
11 everybody. And, again, welcome to all of you.
12 And with that, Mike, I'll turn the program over to
13 you.

14 MR. SMITH: Thank you, Commissioners.
15 Before I begin I'm going to go through the
16 customary housekeeping recital.

17 For those of you who are not familiar
18 with this building, the closest restrooms are
19 located just outside the door, main entrance here,
20 and off angle to your left. There's a snack bar
21 up on the second floor under the white awning in
22 the far corner.

23 Lastly, in the event of an emergency and

24 the building has to be evacuated, please follow
25 our employees to the appropriate exits. You'll

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1 see staff wearing yellow hardhats, looking very
2 official. Just follow them and you'll be okay.

3 They'll take you out to Roosevelt Park,
4 which is kitty-corner from this building, and
5 you'll stay there for a few minutes until the
6 building is cleared or the exercise is over, or
7 the actual emergency is over.

8 PRESIDING MEMBER BOYD: Mike, I hope
9 there's no emergency today; it's safer in here
10 than it is outside.

11 MR. SMITH: Yeah, I know. The emergency
12 is all happening outside. People are probably
13 coming into the building.

14 Anyway, with that, I'm also wanting to
15 point out that this presentation is being webcast,
16 so we have folks that are already online now. We
17 can tell when they have questions, so we will
18 defer to them when necessary.

19 But the queue for questioning will be
20 taking questions from the audience in the room
21 first, and then we'll queue over to those that are
22 on the webcast for any questions that they may
23 have.

24 And then I believe, also, we have some
25 folks that are perhaps just on telephone line,

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1 also, that we can bring online into the hearing
2 room to ask questions.

3 Okay. That takes care of all the
4 housekeeping chores. Let me thank you all for
5 coming. This is our first workshop, big workshop,
6 with respect to our rulemaking process. And want
7 to start with an explanation of what the purpose
8 of our program is.

9 And it's very clearly to develop and
10 deploy innovative technologies that transform
11 California's fuel and vehicle types to help attain
12 the state's climate change policies.

13 And I do want to offer a little bit of
14 explanation, because over the past couple of
15 months we've tried to put forward purpose
16 statements that integrate the direction that the
17 legislation give us regarding climate change, and
18 the provisions and the tools that the legislation
19 has provided us in getting alternative fuels and
20 vehicles into the marketplace, and objectives to
21 reduce petroleum use in California.

22 And so you may have seen in
23 presentations and perhaps in documents you may

24 have seen different iterations of that exercise.

25 In large part, perhaps, they've largely been

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1 fairly unsatisfactory, or unsatisfying.

2 And so at this point in time it's
3 probably best that we just go back to basics. And
4 so basically the statute says that the purpose of
5 the program is to reduce greenhouse gases in
6 California.

7 The legislation has given us some very
8 clear objectives in terms of doing that by
9 expanding the use of alternative fuels in
10 California, reducing petroleum use in California.

11 And so we see this as a perfect
12 complement to other programs, certainly the Air
13 Resources Board's programs, in AB-118, as well as
14 their efforts to establish a low carbon fuel
15 standard, and their other efforts under AB-32. So
16 this is an ideal complement, market complement to
17 ARB's very critical regulatory processes
18 underway. But I just want to make that very
19 clear.

20 By now you all are familiar with the
21 essence of our part of AB-118. We have up to \$120
22 million a year that's been authorized to us;
23 certainly not appropriated at this point in time.

24 That's still a bit of a mystery, exactly how much
25 will be available to us this first fiscal -- hello

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1 -- was that me, feedback or did somebody --

2 PRESIDING MEMBER BOYD: Keep going.

3 MR. SMITH: Okay. The legislation also
4 emphasizes that we are to deploy these alternative
5 fuels and vehicles without giving any one
6 preference to any single fuel or vehicle. So
7 we're not taking any reasonable option off the
8 table in terms of what we consider for funding in
9 order to make a meaningful difference in
10 California's greenhouse gas emissions profile.

11 We are also asked by legislation to use
12 our funds in this process to reduce, on a
13 lifecycle basis, other forms of pollution in
14 California, criteria pollution, emissions, water
15 emissions, toxic emissions and so on.

16 And then fundamentally the bill asks us
17 to do all of this, and not adversely affect the
18 sustainability of the state's natural resources.
19 And with that particular provision of the bill,
20 we're actually looking more broadly than just the
21 state's natural resources. And I think, in terms
22 of dealing with greenhouse gas emissions, you have
23 to look beyond the borders of California. So

24 we're trying to examine that issue and follow this
25 bill's directives on that particular point,

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1 internationally.

2 The rulemaking that we are in the
3 process of undertaking now is to develop and adopt
4 regulations specifically to clarify the statute.
5 There's a number of points in the statute that
6 need clarification, need further definition. And
7 so the fundamental point is to bring clarity to
8 those points in the statute.

9 In doing so, it creates certainty how we
10 administer the program. So, for stakeholders who
11 want to participate in the program with us, then
12 the regulations will provide a clearer roadmap on
13 how we're going to administer the program than
14 what is currently available in statute.

15 There's two phases. Commissioner Boyd
16 alluded to this briefly in his remarks, but
17 there's two phases to this rulemaking. There's an
18 informal phase, which we are in the process now.
19 And there's a formal phase.

20 In the informal phase we're developing
21 regulatory concepts and will ultimately develop
22 draft regulations for public review. This
23 workshop, this Committee workshop, is focused on

24 the first part of this draft regulatory concepts.
25 This is the prelude to actually developing

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1 regulation language that we will ultimately share
2 with you and other stakeholders for public
3 comment.

4 The point of the informal process is to
5 try and identify issues, work out any issues ahead
6 of time, so that when we go into the formal part
7 of the rulemaking we're trying to minimize as many
8 surprises as possible. So we will feel pretty
9 confident that we know the language that we will
10 need in order to proceed with regulations that
11 will meet our needs in terms of administering the
12 program, and provide clarity to stakeholders, you
13 folks, in participating in the program.

14 The formal phase begins after we have
15 these nominally two workshops, and we actually
16 develop the draft -- our proposed regulations.
17 And there's a larger package of material that we
18 prepare; and we submit that to the Office of
19 Administrative Law.

20 They then review that, take a couple of
21 week, I believe, to review that. And then they
22 will notice it formally. That begins the 45-day
23 review period, and that begins the formal part of

24 the rulemaking process.

25 To start the discussion today in

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1 developing draft regulatory concepts, we looked at
2 ten key provisions in the statute that we felt, in
3 some way, might need clarification on first blush.

4 And we went through very carefully, and
5 had considerable discussion internally, to decide
6 which of those items, which of those provisions
7 actually need clarification.

8 And so we've identified the ten areas
9 here. And those that have an asterisk next to
10 them are the provisions in the statute that we
11 feel need further clarification of the
12 regulations.

13 Those provisions listed here that do not
14 have an asterisk are those that we have determined
15 that the statute is sufficiently clear, and
16 provides sufficient direction to the Energy
17 Commission to administer the program. And
18 therefore, do not require further clarification or
19 definition within regulations.

20 So, our regulations, then, would focus
21 on those key areas that have the asterisks, the
22 five areas: fuel and vehicle technology
23 definitions; sustainability goals; the anti-

24 backsliding guidelines, which we, ourselves, are
25 not developing, but is being developed at the Air

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1 Resources Board; existing -- the effect of
2 existing laws, rule and regulations; the structure
3 of our advisory committee; and the role of the
4 investment plan in administering this program.

5 So, let me start with the first one, and
6 I'm just going to go through these. This is
7 basically the heart of my presentation now. So
8 I'm just going to walk through each of those ten
9 items and give you a quick overview as to why we
10 feel that they either do or do not require
11 regulations, to clarify them.

12 After my presentation we have staff here
13 that can answer specific questions regarding any
14 or all of these recommendations.

15 But let's start with the full fuel cycle
16 assessment. Much of what we do in this program --
17 most of what we do in this program is going to be
18 based on full fuel cycle assessment of fuels and
19 vehicle technologies.

20 So, it's important to know whether or
21 not there is sufficient definition within the
22 statute that allows us to know exactly what that
23 content of a -- the scope and content of the full

24 fuel cycle assessment is. And we feel that the
25 bill, the legislation, does clearly lay out the

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1 contents and the focus that we need to apply in
2 developing a full fuel cycle assessment.

3 We note, also, that two pieces of
4 legislation that are pending now at the
5 Legislature, AB-109 and SB-1240, provide further
6 definition as to the content and scope of the full
7 fuel cycle assessment.

8 So, in that respect we feel there's
9 sufficient clarity and direction in statute, and
10 we don't feel we need any further regulatory
11 language to enhance the full fuel cycle
12 assessment.

13 Fuels and technology definitions. In
14 this particular case we feel that there is a need
15 for regulatory clarity. And let me explain why.
16 The statute is pretty clear in that it allows us,
17 it gives us the authority to expend funds to
18 support alternative fuels, the use of alternative
19 fuels.

20 It also allows us to expend funds
21 supporting the use and development of vehicles and
22 related technologies. So there's a certain
23 symmetry within the statute in that regard.

24 The statute also goes on to say that we
25 can use funds to support the production of

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1 alternative and renewable fuels in California. So
2 we can actually use some of these dollars to help
3 support the construction and operation of
4 facilities that will be producing these fuels.

5 Where the symmetry in the statute breaks
6 down a bit is that it doesn't have the same -- it
7 doesn't expressly make the same statement
8 regarding facilities that will manufacture
9 alternative and renewable fuel vehicles or related
10 technologies in California. And we think that's
11 an important clarification that needs to be made.

12 The statute actually does, in the 11
13 items that it describes as eligible activities,
14 you can extract from any number of those items
15 language that we feel creates the intent to
16 support the manufacture and the development of
17 vehicles and technologies in California.

18 It just doesn't expressly say it, as it
19 does with alternative fuels. So, we feel that
20 this would be an important clarification in
21 regulation to make clear that we can also use
22 these funds for purposes of facilities to
23 manufacture vehicles and related technologies.

24 Sustainability goals. I'm going to
25 quickly go through these. As I mentioned, Jim

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1 McKinney is here, who's spent a good part of his
2 life over the last couple of months immersed in
3 this issue. And we can call upon him to discuss
4 this in more detail.

5 But basically, here again, we feel the
6 regulations are needed. And we offer up four
7 optional goals for consideration. And under each
8 we've identified the types of projects or
9 activities that might characterize the goals that
10 we're describing.

11 The first one is that we should support
12 fuel and technology options that have the best GHG
13 reduction potential. And one way of approaching
14 this is to fund projects that have a minimum of 10
15 percent carbon footprint, 10 percent less than the
16 petroleum baselines.

17 Another way of looking at this is there
18 may be projects that don't quite have a 10 percent
19 reduction potential right now. But there's
20 potential, there's substantial GHG reduction
21 potential in the future. And so we may want to
22 consider bridging opportunities to fund a project
23 now with the hope that commercializing a

24 technology or fuel will result in far more
25 substantial GHG reduction in the future.

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1 The second goal suggests that we support
2 production of fuels and technologies that are more
3 environmentally efficient and less environmentally
4 damaging, compared to current petroleum and
5 agricultural baselines.

6 And we've identified a number of items
7 that might characterize that goal or activities
8 that we might use to achieve that goal or
9 implement the goal.

10 Certainly using waste stream feedstock
11 in California has been the holy grail of biofuels
12 in a sense. So moving away from -- rather moving
13 toward the massive waste, municipal solid waste,
14 agricultural waste, forestry waste in California
15 that is creating other environmental problems, and
16 they can be used to create clean fuels for
17 California's market.

18 Supporting purpose-grown energy crops,
19 but that are done so under best management
20 practice plans. We may want to implement
21 certification reporting systems to verify the
22 origin of certain biofuels.

23 We want to perhaps look at biofuels that

24 are suitable to California's resources and climate
25 constraints. Resources being certainly the top

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1 one on our list is perhaps water. And so on. I
2 won't go through -- well, I'll certainly emphasize
3 the last one.

4 The possibility of incorporating
5 renewable energy and more efficient fossil
6 cogeneration systems in the production of these
7 fuels. So there's any number of ways we could
8 perhaps achieve that goal.

9 The third goal might be to support
10 certified sustainable production of biofuels for
11 California markets. And this could be by best
12 available production methods and practices, and
13 the use of internationally recognized
14 certification reporting systems.

15 Fourthly, this one is not so much a goal
16 as it is a management approach. It basically says
17 that as we go through this program and implement
18 it and work through this program, we're not going
19 to know everything now. We can't make decisions
20 now that will affect the program seven years from
21 now.

22 And we need to be willing to be able to
23 adapt the program to changing circumstances. Or

24 adapt the program as more knowledge is gained
25 about alternative fuels, not just biofuels, but

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1 any alternative fuels and renewable fuels and
2 vehicle technologies.

3 As we gain more information about these
4 and we learn about the implications of these
5 fuels, we need to be in a position to change the
6 program, make mid-course adjustments to keep us on
7 a trajectory of achieving the greatest greenhouse
8 gas reduction potential over the long term.

9 Getting back to the list of ten.
10 There's a provision in the bill that asks us to
11 identify revenue streams. This one we think needs
12 no further clarification. It basically is asking
13 us to make the most -- leverage the most nonstate
14 funding opportunities.

15 We also feel that the statute gives us a
16 little more guidance in the provision dealing with
17 our investment plan. Where it asks us to identify
18 in our investment plan funding opportunities that
19 will complement our AB-118 program funds. So we
20 really didn't feel that there's much need here for
21 a regulatory clarification.

22 Measuring program results. The statute
23 asks the Energy Commission to fund projects that

24 are quantifiable and measurable. And we feel that
25 this does not require any further clarification of

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1 regulations.

2 The statute provides -- there's a list
3 of 11 preferences that it asks us to consider in
4 funding projects. And in looking at those 11 it
5 becomes very clear to us that those are actually
6 very suitable criteria against which we can
7 measure the program overall.

8 So our intent is to take those 11
9 preferences that are in the statute and use them
10 as a measure for an annual evaluation of the
11 program.

12 So we feel the statute already gives us
13 built-in criteria against which to measure the
14 program, and measure the program results. And to
15 help us guide the program and perhaps even make,
16 again, mid-course corrections as we understand the
17 efficiency or effectiveness of our efforts to
18 reduce -- get alternative fuels in the
19 marketplace, and ultimately reduce greenhouse gas
20 emissions. And maybe discovering that we're not
21 doing enough. And so, again, we need to be in a
22 position to make these adjustments to the
23 program. But we feel the statute gives us

24 those criteria already.

25 We also note that AB-109 contains

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1 language that would direct the Energy Commission
2 to do this very sort of thing, beginning in the
3 2011 energy report. It would ask us to evaluate
4 the efforts, our funding efforts to support
5 research, development and deployment of
6 alternative fuels, using very very similar
7 criteria to what's already in AB-118 now.

8 So we feel that will be further support
9 for our determination that we don't need
10 regulations at this point.

11 Anti-backsliding guidelines. This is
12 the part of the bill that asks the Air Resources
13 Board to develop guidelines against which we
14 cannot backslide with respect to the benefits of
15 the state implementation plan, the benefits of
16 RFG-3 -- is it RFG-3 -- and --

17 MR. PANSON: It actually says RFG-2.

18 MR. SMITH: -- RFG-2, I'm sorry. And
19 the CARB diesel regulations. And I'm sure that
20 Andy and Johanna will be more than happy to
21 explain where they're at in that process.
22 They've already had at least one workshop on it,
23 so they're well underway.

24 We note that their intent is to take
25 their guidelines to their Board in late September

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1 for approval; after which it would go to the
2 Office of Administrative Law for review there; and
3 ultimately for approval and publication.

4 One point I want to make on these. We
5 make the statement here that no further
6 clarification in regulations is necessary. By
7 that I mean no further clarification in our AB-118
8 regulations is necessary. Clearly ARB is directed
9 to make that clarification in regulations. But
10 that's a separate process.

11 And we don't need to incorporate their
12 results into our program regulations. Once OAL
13 approves them and they're published by the
14 Secretary of State, they basically have the force
15 of law. And we will be required and obligated to
16 respect those guidelines and adhere to those
17 guidelines. And our intent would be to
18 incorporate those guidelines in our funding
19 packages, solicitations or other funding
20 mechanisms that we choose to use in the program.

21 Existing laws, rules and regulations.
22 AB-118 has a provision that says we're prohibited
23 from expending any dollars on activities or

24 projects, I believe is the word, that are already
25 required by federal rules, federal law, state law,

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1 local district rules and regulations. It's some
2 combination of those words.

3 But basically it says if it's already
4 required by law or regulation at some level, then
5 we are not to provide funding support to that
6 activity or to that entity engaged in that
7 activity.

8 We clearly believe that regulation or
9 regulatory language is needed here to help bring
10 clarity to that. Because there's a lot of debate
11 and a lot of uncertainty about exactly where that
12 bright line is, as to where existing laws, rules
13 and regulations end and AB-118 funding
14 opportunities begin.

15 And, so, again, there's been
16 considerable debate about this question and we
17 would like to try and come up with some regulation
18 based on, you know, help from you folks on where
19 that bright line is.

20 Our initial thinking is that the laws,
21 rules and regulations that we've examined in
22 detail, at the federal, state and local level,
23 clearly identify entities that are obligated to

24 comply. And they clearly identify those
25 activities for which those entities are obligated

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1 to comply.

2 So, or feeling is that know that, the
3 funding opportunities become conceptually
4 everything upstream from that and everything
5 downstream from that.

6 The example that has been talked about
7 probably most is using the zero emission vehicle
8 mandate, which was recently revised by the Air
9 Resources Board to include a very substantial
10 number of plug-in hybrid electric vehicles the
11 OEMs would have to produce and make available for
12 sale in California.

13 I'm going to speak to this, but I'll
14 certainly defer to our colleagues from the Air
15 Resources Board to add clarity to this, since it's
16 their mandate.

17 But let me just, by way of example, it's
18 a production mandate. And so the OEMs are
19 required to make these -- produce these cars and
20 make them available for sale.

21 An opportunity that we see is in order
22 to get these cars onto the streets as quickly as
23 possible so that we all can start accruing the

24 benefits of the reduced greenhouse gas emissions,
25 reduced petroleum, reduced pollution and so on, is

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1 to provide incentives to consumers to help defray
2 the costs, what will be a premium for these
3 vehicles. And so find that as a fairly reasonable
4 area for AB-118 investments, from the Energy
5 Commission's standpoint.

6 Another example might be the low carbon
7 fuel standard, which the Air Resources Board is in
8 the process of developing. That standard will
9 require refiners, marketers, distributors to
10 produce and sell, at retail, fuels that have a
11 carbon intensity 10 percent less than the current
12 petroleum benchmark.

13 While we certainly don't want to fund
14 those particular entities' activities in producing
15 those fuels or selling those fuels, an opportunity
16 for funding might be upstream in providing funding
17 support to company XYZ that is not obligated to
18 comply with the low carbon fuel standard, but is
19 developing a biodiesel production facility that
20 would sell their biodiesel into the market. Some
21 of it which might go to a refiner, some not.

22 We don't see that as interfering with or
23 violating the statute, the provision in AB-118

24 that doesn't allow us to provide funding to
25 entities that are obligated to comply with the

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1 mandate.

2 So, we're trying to find those lines.

3 And we've given some examples in our scoping
4 paper. But we certainly would welcome further
5 discussion on that point. But that's the
6 direction that we're headed in, trying to develop
7 regulations for that provision.

8 The Advisory Committee, the statute
9 requires the Energy Commission to establish an
10 Advisory Committee to help us develop an
11 investment plan.

12 The investment plan, as you will see
13 later, is a tool that will identify priorities and
14 funding opportunities for the Energy Commission's
15 portion of AB-118.

16 We feel regulations are needed here to
17 establish the leadership of the Committee, and we
18 would establish it as the Presiding Member of the
19 Energy Commission's Transportation Committee. We
20 also, in a more minor way, would rename it from
21 advisory body to Advisory Committee. There may be
22 other more minor participatory functions that we
23 want to memorialize or formalize in regulations,

24 but I think those would probably be the key ones.

25 Likewise on the investment plan, the

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1 statute tells us we have to develop this
2 investment plan. What we want to do in
3 regulations is make it very clear that we will
4 develop it and it will be adopted by the Energy
5 Commission.

6 So the Energy Commission will take
7 formal action to develop this document. And it
8 will become the guide by which we fund projects
9 through AB-118, at least our portion of AB-118.
10 So we want the regulations to make that very very
11 clear.

12 Again, we note that AB-109 contains
13 language that makes similar clarifications. So we
14 feel very supported by that, and the need for
15 regulations here.

16 Lastly, the statute directs that \$10
17 million of that approximately \$120 million that
18 would be available to us, up to \$120 million that
19 would be available to us each year, \$10 million is
20 to be directed from our research account, the
21 Public Interest -- Kelly, you would know this --

22 MR. BIRKINSHAW: Energy Research.

23 MR. SMITH: Public Interest --

24 MR. BIRKINSHAW: Public Interest Energy
25 Research.

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1 MR. SMITH: You would know the name of
2 the account. Public Interest Energy Research
3 account?

4 MR. BIRKINSHAW: Yeah.

5 MR. SMITH: Okay. \$10 million of that
6 would be directed into this new account created
7 for the alternative and renewable fuels vehicle
8 technology program.

9 The funds from that account are derived
10 from electricity and natural gas ratepayers. And
11 what the statute, what AB-118 tells us is that
12 whatever we spend that \$10 million on, and it
13 doesn't have to be on R&D, once it gets into our
14 account it loses the R&D strings, so we can spend
15 it on deployment if we wish.

16 But what it does tell us to do is when
17 you spend that \$10 million you need to explain how
18 electricity and natural gas ratepayers are
19 benefitting by your investment of that \$10.

20 And here we feel there's no further
21 clarification needed in regulations. And the
22 reason being that I think it was two years ago,
23 two years ago the Energy Commission adopted its

24 natural gas research investment plan. It was
25 required by a separate piece of legislation

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1 several years ago.

2 This plan included an addendum that
3 defines the methodology for ratepayer -- to
4 determine ratepayer benefits. And so we feel
5 relying on this methodology would insure that
6 however we spend the money, if we spend it
7 consistent with that methodology, that we will
8 then be providing ratepayer benefits.

9 So, because of that we felt, since
10 there's already a methodology being used by the
11 Energy Commission, that no further clarification
12 regulations are needed at this point.

13 So that's the ten items; that's the sort
14 of 30,000-foot view.

15 That last thing I just wanted to present
16 to you is our rulemaking timeline. Starting with
17 the workshop today, in August, hopefully early
18 August, we haven't set on an exact date yet, we're
19 going to have another workshop in which we will
20 present draft regulations, draft language, based
21 on our own recommendations, input we receive from
22 stakeholders, input we receive from workshop
23 participants today, and anything that is submitted

24 to the docket in between.

25 We will then take a stab at drafting

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1 language and convene another workshop early August
2 in this same manner, and present that language to
3 you for your consideration and review and comment.

4 We're hoping that in late August, later
5 August, we'll be in a position to submit our
6 regulatory package to OAL. OAL has a little bit
7 of time to review it and comment on it. And if
8 they find everything is satisfactory, then, then,
9 submit it into the -- a notice into the California
10 Regulatory Notice Register. And that begins the
11 45-day review process, public comment process.

12 Skipping down just to go over this
13 quickly, because you folks can take a little more
14 time to peruse this, but we're hoping, if
15 everything goes according to plan, to have the
16 final regulations package submitted to the Energy
17 Commission for adoption in December. And that
18 would be at a regularly scheduled business
19 meeting.

20 And once that's approved then it would
21 be submitted to OAL. And we are conservatively
22 guessing that OAL might take three months to
23 consider and approve. And so we're looking at

24 perhaps a March 2009 date by which our regulations
25 are adopted and we are officially able to award

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1 funds and actually start the program.

2 And that concludes my presentation. I'm
3 sure it was a lot of information given in a short
4 timeframe, but the whole purpose of the workshop
5 today is to ask questions and interact with our
6 Commissioners and the staff who helped develop
7 these recommendations.

8 PRESIDING MEMBER BOYD: Thank, Mike.
9 Any questions folks might have at this point in
10 time that they would like to get clarification on,
11 in addition to any public comments they want to
12 make later? Just questions of clarification.
13 Please. Just tell us who you are for the record.

14 MS. FUGERE: Hi, Danielle Fugere.

15 PRESIDING MEMBER BOYD: The tall mike is
16 the one that really --

17 MS. FUGERE: Danielle Fugere with
18 Friends of the Earth. I had two just quick
19 questions. I was hoping you could give more
20 information about wanting to fund -- trying to
21 find it here, but the idea of funding the
22 production of vehicles. I wasn't clear exactly
23 what you were intending by that or what -- if you

24 had examples?

25 MR. SMITH: Yes, I will.

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1 MS. FUGERE: Yeah. So, I guess, if you
2 could fill in for me more information about what
3 you're proposing, because certainly that, at least
4 in my mind I'm thinking are you talking about
5 funding the production of vehicles, or are there
6 other examples?

7 MR. SMITH: Well, we don't have anything
8 in mind specifically at this point. What we're
9 trying to do is provide an opportunity if an
10 entity wants to locate, say, a manufacturing
11 facility in California to produce low carbon or
12 zero emission vehicles, or to produce components
13 or pieces of technology that would go into a low
14 emission or zero emission vehicle, such as, say,
15 advanced battery systems or electronic control
16 systems that would be specifically for these
17 vehicles.

18 We think from several standpoints that
19 it would be a worthwhile investment for the state
20 to help bring those operations and entities to
21 California. Not only to have the vehicles readily
22 available in this market, but also in doing so
23 you're creating sort of an economic development

24 stimulus.

25 And so there's a job stimulus there.

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1 There's opportunities for high tech job
2 creation, for job training, for sort of green
3 collar, if you will, job opportunities.

4 So there's any number of sort of, you
5 know, secondary benefits as to why you would want
6 to locate a facility here. If it meant that -- if
7 we could show that the use of our funds was an
8 effective use in bringing those companies to
9 locate here, we think that would be a worthwhile
10 effort.

11 Does that help?

12 MS. FUGERE: Yeah, that helps, thank
13 you. And then a question on number 5, the
14 measuring of program results.

15 I didn't think that the 11 preferences
16 helped measure emissions, which is the way I read
17 that section. And 11 is about projects
18 specifically, as opposed to the program as a
19 whole.

20 So, I think that there does need to be
21 further clarification as to how you would -- one,
22 what are you measuring, and then two, how are you
23 measuring it. How are you getting information.

24 Are you receiving information from the projects
25 that receive funding; what kind of information.

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1 I don't know how you could make those
2 measurements without having an idea of more
3 specificity, I guess, is what I was thinking.

4 MR. SMITH: Well, I think, from our
5 standpoint, in looking at the 11, if you take them
6 collectively, they, from our standpoint they do
7 sort of cover the waterfront of areas that we
8 would be concerned about in terms of measuring the
9 success or the progress that we're making in this
10 program toward meeting greenhouse gas targets.

11 It talks about consistency with future
12 state climate change policy, low carbon fuel
13 standards. It talks about lifecycle, on a
14 lifecycle basis, emissions of water pollutants.
15 It talks about ability to make a measurable
16 transition from petroleum to alternative fuels.

17 Now, the way the language is presented
18 in this particular part of the statute, it does
19 address, you know, on a project-by-project basis.

20 And so two things to keep in mind.
21 Number one, if you remove the word project and
22 just look at the sort of qualitative content of
23 each of these criteria, when you put them together

24 it makes up the fairly comprehensive list of
25 criteria against which you want -- has all the

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1 pieces that we see that we want to measure our
2 program against.

3 Now, how we get that information,
4 probably through, you know, the actual projects
5 that we fund. We would envision that in
6 solicitations that we release require that
7 applicants bring in their best guesses, or best
8 estimates of what the market penetration potential
9 will be of a given fuel or technology. How that
10 equates to emissions reductions, GHG reductions.
11 How it equates to ultimate alternative fuel use or
12 petroleum reduction. What economic benefits might
13 accrue from that activity. If job creation
14 potential exists and so on.

15 As a starting point we would use the
16 applicant's or the recipient's initial estimates.
17 We would envision also that we would develop our
18 own capabilities inhouse to measure the validity
19 of those estimates.

20 If we think they're -- we can do an
21 analysis for funding purposes. And then as the
22 project unfolds we can continue to evaluate the
23 project and make our own assessment as to how

24 accurate those are, make our own assessments about
25 what the GHG reduction potential is, what the

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1 emissions reduction potential is, and so on.

2 So it could be from any number of
3 sources. We just didn't feel that describing
4 those methodologies in regulations was necessary,
5 but what was more critical is just understanding
6 the benchmarks against which the program would be
7 measured. And we felt that those 11 sort of
8 comprised a very reasonable package of benchmarks.

9 If there's additional benchmarks that
10 you feel need to be on this list, we would
11 definitely like to hear your views on that.

12 MS. FUGERE: Well, I would think at
13 least identifying those 11 measures within the
14 regs would be appropriate. Then so that you know
15 in the regulations what is actually being
16 measured. And as we go through the low carbon
17 fuel standard, we're also looking at how to track
18 some of the measurements, the greenhouse gas
19 emissions. And some of that, I think, would
20 require information from the project recipients,
21 and not just their best guesses, but really what
22 has been achieved; what, you know, where are, for
23 instance, their feedstocks coming from, if it was

24 a biofuel refinery.

25 You know, that kind of information could

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1 be critical. Otherwise, I would think that you're
2 just guessing. And so some type of tracking
3 mechanisms, I think, would be useful and
4 appropriate.

5 MR. SMITH: I couldn't agree with you
6 more. And perhaps the use of the term, their best
7 guess, might have been a little too loose.

8 We certainly would want to work closely
9 with ARB, who is in the process of developing some
10 of those mechanisms for purposes of the low carbon
11 fuel standard.

12 And complying, you know, complying with
13 that test very likely will be more stringent than
14 what might be needed in our program. Because
15 there the applicant has to comply with a very
16 clear, specific regulation.

17 And so the tracking mechanisms and the
18 evaluative tools that ARB may be developing, I
19 think, certainly could be very valuable for us. as
20 well. So, yes.

21 MS. FUGERE: Okay.

22 MR. SMITH: Best guesses was probably a
23 bad choice of words.

24 MS. FUGERE: Thanks.

25 MR. RATHKE: Hi, I'm Justin Rathke with

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1 Capstone Turbine Corporation.

2 First of all, I'd like to express our
3 support for the program. I think it's a program
4 that's really going to move California ahead, and
5 sets the bar very high for other jurisdictions.
6 So we commend your effort.

7 I'd like to just urge the Commission to
8 look closely at the greenhouse gas reduction
9 potential from energy efficiency improvements in
10 engines.

11 The technology that we're developing can
12 achieve CO2 reductions through both fuel
13 flexibility, but also through higher fuel
14 efficiency. I'm hoping to get your comment on
15 that.

16 MR. SMITH: The statute actually allows
17 for the Energy Commission to expend funds to
18 develop technologies that will improve the
19 efficiency of light-, medium- and heavy-duty
20 vehicles.

21 It doesn't speak to that it's only for
22 alternative and renewable fuel vehicles. That it
23 could be used to improve the efficiency of all

24 vehicles if the efficiency gains are substantial.

25 So, we do have that authority in the

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1 statute to provide funding to support those sorts
2 of technological improvements.

3 MR. RATHKE: Does the statute give any
4 details on what substantial means?

5 MR. SMITH: I think, if I recall
6 correctly, it refers to a --

7 MR. RATHKE: A 10 percent figure?

8 MR. SMITH: No, it's actually higher
9 than that. Excuse me just one second while I find
10 the provision.

11 Says, item 6 under section 44272(c)(6):
12 projects to develop and improve light-, medium-
13 and heavy-duty vehicle technologies that improve,
14 that provide for better fuel efficiency, lower
15 greenhouse gas emissions, alternative fuel uses,
16 storage, or emission reductions including
17 propulsion system advanced internal combustion
18 engines with a 40 percent or better efficiency
19 level over the current market standard. Light-
20 weight materials, energy storage and on and on and
21 on.

22 MR. RATHKE: Is that one of the details
23 that will be clarified by the Commissioners that a

24 hard-and-fast figure, because we have real doubts
25 on anybody's ability to achieve 40 percent.

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1 That's a significant figure.

2 You know, we're working on intercooled
3 recuperator that, you know, may be 35 percent more
4 efficient than existing hybrid electric vehicle
5 buses. Which is, to us, seems very significant.
6 And it's close to 40.

7 But is that a hard-and-fast metric?

8 MR. SMITH: I would have to say, since
9 it's in statute, we have to consider it fairly
10 hard and fast. How it's applied in statute, there
11 may be, upon very close examination, maybe we have
12 some flexibility on how we apply it to
13 technologies.

14 But, fundamentally that 40 percent
15 figure appears in statute. So that becomes the
16 datapoint we have to work with.

17 MR. RATHKE: Okay, thank you.

18 MR. SMITH: Thank you.

19 MR. LIND: Hi, Mike.

20 MR. SMITH: Hi.

21 MR. LIND: Just for the record I'm Allan
22 Lind; I'm here on behalf of the California Council
23 for Environmental and Economic Balance.

24 I just wanted to tell you that I
25 actually very much appreciate the workshop, in

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1 particular the way you sort of broken in
2 sustainable goals, because you've actually got
3 some sort of bullet-like headlines there.

4 And the reason I mention that is that in
5 reading the concepts paper, maybe it was because
6 it was late, but all the sustainable goals there
7 kind of blurred together. And it's a little bit
8 hard to get the point across of how you're trying
9 to distinguish between those four goals.

10 So, just an editorial suggestion there
11 that maybe you could sort of clarify, I think, in
12 your concepts paper. I think that would read
13 better.

14 MR. SMITH: Okay.

15 MR. LIND: But the one observation that
16 I made in the presentation is that under your
17 sustainable goals, frankly under number 2, the
18 last bullet there refers to renewable energy and
19 cogeneration used in production.

20 It just so happens that I couldn't find
21 that phrase used in your concepts paper. So I was
22 wondering if you could elaborate a little bit on
23 that, especially with respect to the renewable

24 portfolio standard that utilities are obligated to
25 comply with.

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1 In other words, what might be an
2 eligible expenditure for a renewable energy
3 technology that serves the purposes of AB-118 and
4 climate change. What would be eligible for 118
5 funding if it's arguably a mandate on utilities to
6 achieve in their portfolio. Can you kind of
7 expand on that?

8 MR. SMITH: Let me make a quick comment,
9 then I can certainly look to Jim McKinney to
10 elaborate.

11 But under this goal what we were trying
12 to achieve is strategies that would minimize the
13 environmental effects of producing fuels and
14 technologies.

15 So, one way of doing that is to look
16 closely at not just the feedstocks that go into
17 the production of fuels, but the energy inputs
18 that go into the production of these projects.

19 To the extent that we can incorporate
20 renewable energy as an energy input into a
21 facility that might be producing a technology or
22 related vehicle technology, or producing an
23 alternative fuel, as opposed to relying on the

24 electric grid entirely, or natural gas system,
25 that would tend to be a minimization effect.

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1 If a facility was not so -- it didn't
2 have renewable available to it, or just simply
3 wasn't appropriate and had to rely on fossil fuels
4 to produce these products, well, then, in some
5 cogeneration fashion can we construct a facility
6 or configure a facility that uses cogeneration, so
7 that the energy input is used most efficiently,
8 again, to minimize the impacts.

9 I don't think this is intended,
10 necessarily, to butt up against the RPS.

11 MR. LIND: I wouldn't --

12 MR. SMITH: The way --

13 MR. LIND: -- think so --

14 MR. SMITH: -- very well be
15 opportunities where a facility wants to use just
16 strictly onsite renewable energy. And this may be
17 an opportunity for 118 funding.

18 The interplay with the RPS is certainly
19 something we'd have to consider very seriously if
20 an applicant wanted funding to include renewable
21 energy as an input to their biofuel production
22 facility, and part of that output is going to be
23 sold to a utility to meet an RPS standard, that

24 adds an extra facet that would certainly have to
25 be taken into careful consideration.

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1 Jim, is there anything that you wanted
2 to add to it?

3 MR. MCKINNEY: No, Mike, I think you
4 captured it. I think, you know, some examples.
5 You know, we know that the GHG footprint for
6 ethanol from midwest corn is high, partially due
7 to the coal input used for processing.

8 So the idea is to, you know, look at
9 production facilities say here in California that
10 are really seeking to lower their environmental
11 footprint and GHG footprint on every facet of
12 production; and that's the essence of the
13 lifecycle assessment.

14 So, if they can lower part of their GHG
15 profile through using renewable energy inputs,
16 there's a little bit more margin for a lower GHG
17 profile than if, you know, the standard resource
18 mix had been used.

19 MR. RATHKE: Thank you.

20 ASSOCIATE MEMBER DOUGLAS: Allan,
21 quickly, I just wanted to add one thing, which is
22 that we're going to need more dialogue about the
23 restriction on funding activities that are

24 required by current law in order to achieve a
25 clear understanding about what that means.

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1 But I'd just encourage you to look at,
2 first and foremost, who's the point of regulation.
3 So, for the RPS, the point of regulation is the
4 utility.

5 It would, in my mind, be very clear that
6 we couldn't fund a utility to produce renewable
7 energy, because they're required to do so under
8 the RPS.

9 But, that -- I don't think that stops us
10 from potentially giving extra consideration to a
11 project that uses renewable energy because that's
12 consistent with our sustainability goals.

13 MR. LIND: Thank you.

14 PRESIDING MEMBER BOYD: Mike, before you
15 go on, I want to go back to the -- on efficiency
16 that the gentleman from Capstone raised.

17 And let me just reflect on the fact that
18 as I'm sure the great majority of the folks in
19 this room know, that efficiency is job one in the
20 Energy Action Plan, in the IEPR, Integrated Energy
21 Policy Report of this agency, the Energy Action
22 Plan being the PUC/CEC strategic plan and roadmap.

23 Admittedly, the latter's not heavily

24 directed to transportation fuel, but in
25 transportation in general, but since efficiency is

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1 such a big deal with us, we definitely are
2 interested in efficiency improvements.

3 And the question about interpreting
4 statute, and we have to talk about that more
5 internally, but as I read and reread that section
6 you quoted in the 40 percent criteria, I notice
7 it's in a phrase set off by commas, that says,
8 quote, "Advanced internal combustion engines a 40
9 percent or better efficiency level over the
10 current market standard," comma.

11 So it seems to me that quite possibly
12 the technology the gentleman mentioned, which is
13 utilized in a hybrid electric bus, et cetera, et
14 cetera, et cetera, may fall outside of a real
15 strong reading. It's obvious going to need a
16 little homework on these definitions.

17 But since efficiency is so important,
18 and since efficiency is the best and cheapest way
19 to achieve so many goals and objectives, I'm sure
20 we're going to be interested in maximizing the
21 opportunities for efficiency.

22 So, I just say that for the record and
23 for further discussion as we talk about that.

24 Interesting point.

25 MR. SMITH: On that point, the language,

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1 as you point out, Commissioner, says advanced
2 internal combustion engines with a 40 percent or
3 better efficiency level over the current market
4 standard.

5 What the current market standard is, is
6 I guess, well, let's say, let's use CAFE as a
7 current market standard. If light-duty vehicles
8 are presently at 28, 27.5, 28, 40 percent greater
9 than that is what a 12 miles per gallon
10 improvement --

11 PRESIDING MEMBER BOYD: Well, the
12 example used was a heavy duty application --

13 MR. SMITH: Okay.

14 PRESIDING MEMBER BOYD: -- a bus. So I
15 just think there's a lot of latitude --

16 MR. SMITH: Sure.

17 PRESIDING MEMBER BOYD: -- creativity
18 possible.

19 MR. SMITH: I guess I just want to be
20 clear, it's not a 40 percent efficiency; it's 40
21 percent over the current market standard. I don't
22 know if that helps the gentleman from Capstone.

23 MR. SHEARS: Yeah, John Shears, Center

24 for Energy Efficiency and Renewable Technologies.
25 One of the more nettlesome issues that we're going

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1 to have to deal with, and Jim kind of skirted by
2 it, is the debate we have about land use issues.

3 And, you know, there's a lot of
4 discussion going on. One of the members of the
5 greenhouse gas working group at the Roundtable on
6 Sustainability Biofuels, amongst other authors at
7 the Ecole Polytechnique Federale de Lausanne
8 issued an advisory brief back in March.

9 And the recommendation all led to a
10 single recommendation which was to basically bound
11 the biofuels systems globally, balanced at the
12 national level.

13 So, I want us to, you know, be aware
14 that some of the more traditional approaches to
15 modeling are currently being viewed as the way
16 we're going to be going with lifecycle assessments
17 in the future.

18 Setting that aside and controversy goes
19 with it, something that I also want to raise
20 everyone's attention level on is what's happening
21 in the natural gas markets.

22 So, right now we're floating around \$14
23 per million Btu, which is -- it seems like the

24 trend will continue. There are a lot of analysts
25 out there who are saying that given what's going

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1 on with the global natural gas market, North
2 America tends to be isolated, but there are
3 efforts to more closely link what's happening in
4 the North American market with what's happening
5 more internationally. So we may see this come
6 home to affect what's going on more directly.

7 But the general thinking is that natural
8 gas prices will become more closely linked to
9 what's happening with petroleum prices.

10 If you do a quick back-of-the-envelope
11 calculation right now to see if you were to price
12 natural gas on an equivalent basis to what it
13 would be in terms of barrels of oil, we're looking
14 at roughly \$24, \$25 per million Btu. So nearly a
15 doubling in the price of natural gas.

16 So you may be wondering why I'm raising
17 this issue. It's about substitution. More and
18 more of fertilizer that's being synthesized in the
19 world is being synthesized in China. You can make
20 the same synthetic fertilizers using coal. If
21 coal becomes competitive with natural gas, we may
22 see synthetic fertilizers being produced on a coal
23 basis rather than on a natural gas basis.

24 So this may have serious implications,
25 even if we set aside these issues about direct and

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1 indirect land use and carbon emissions relating to
2 direct and indirect land use.

3 Nitrous oxide emissions associated with
4 soil are, you know, also an important factor. But
5 we may also see coal enter back into the picture
6 in biofuels production indirectly in its sourcing
7 and how that synthetic fertilizer is manufactured.

8 So I just want to raise that to
9 everyone's attention. Thanks.

10 PRESIDING MEMBER BOYD: Thanks, John.
11 For a minute there I thought you were part of the
12 T. Boone Pickens effort that's starting today. I
13 heard it on NPR this morning, and I read it in the
14 paper.

15 MR. SHEARS: We can talk about that
16 another time.

17 PRESIDING MEMBER BOYD: He wants all
18 natural gas directed to transportation fuel,
19 period. So, interesting thoughts. Anyway, other
20 questions?

21 MR. SMITH: No one on the webcast or on
22 the phone lines, so -- they've indicated --

23 PRESIDING MEMBER BOYD: Okay, I guess

24 per your agenda we just moved into public comment
25 period. But let me, before you do that, Mike, and

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1 apropos to the subject of public involvement,
2 public comment, I'd like to take this opportunity
3 to introduce to this audience our brand new Public
4 Adviser, Elena Miller, who I see sitting in the
5 back there. Elena, do you want to identify
6 yourself to the audience?

7 For those of you who have any questions
8 about the public process, and want to deal not
9 with staff, but with the independent Public
10 Adviser to the Commission, why Elena is the person
11 that you would approach or contact.

12 And those of you who attend lots of our
13 business meetings and/or siting case committee
14 meetings, are used to and know the role of the
15 Public Adviser in facilitating public discussion
16 and input to our processes.

17 But it relates to everything we do, so
18 if you have any questions or feel you need a
19 friend, go see Elena.

20 (Laughter.)

21 PRESIDING MEMBER BOYD: All right.
22 Mike. Public Comment.

23 MR. SMITH: Commissioner, --

24 PRESIDING MEMBER BOYD: Or did we just
25 have public comment?

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1 MR. SMITH: -- we can take one step
2 further on those online and open the lines up.
3 See if anybody does have any questions.

4 PRESIDING MEMBER BOYD: Go for it.

5 MR. GOLDMAN: Yeah, this is --

6 PRESIDING MEMBER BOYD: Go ahead, we
7 heard somebody start.

8 MR. GOLDMAN: This is Joshua Goldman
9 from (inaudible), formerly Goldman (inaudible).
10 One thing I see from seeing your presentation
11 online is that it appears that much of the focus
12 is in a lot different aspects, all towards
13 sustainability, which I think is great.

14 One thing I want to make sure, though,
15 is that when we're finally enabling technologies
16 like the example of the battery pack, or the more
17 efficient engine, that we're also looking at the
18 application of those products in the larger
19 system, which might be the bus, or even one step
20 further, which may be a fleet of buses within that
21 operating environment.

22 And there might be thought that in terms
23 of enabling technologies infrastructure state, in

24 terms of electric infrastructure for some plug-in
25 hybrid buses, as an example.

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1 And further so, in terms of how we then
2 distribute that technology both from the vehicle
3 side and from the infrastructure side to that
4 market.

5 Did that make sense?

6 MR. SMITH: Yes, it does. Jim, is there
7 any -- I mean --

8 MR. MCKINNEY: I'm sorry, Mike, --

9 MR. SMITH: -- catch you off guard --

10 MR. MCKINNEY: Yeah, I guess I didn't
11 appreciate -- is there a question there or
12 something?

13 MR. GOLDMAN: Well, no, it was more sort
14 of a comment. I think you evaluation of
15 technologies, you're looking at the greater scheme
16 or how the technology, and we're talking from a
17 component standpoint like the example of a battery
18 pack, applied towards the larger implementation of
19 that technology fleetwide and then perception-
20 wise.

21 MR. MCKINNEY: Okay, thanks for
22 clarifying. Yeah, I think it's self-evident in
23 the sustainability concept paper, we really have

24 focused on biofuels because that seems to be where
25 most of the action is. But I recognize and

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1 appreciate the comments and concerns about, you
2 know, say for why it's -- battery-pack deployment,
3 and how do we want to think about that.

4 Do we want to get into measuring use and
5 disposal of some of those metals and other
6 chemical components on a lifecycle scale.
7 Especially as those technologies scale up.

8 So I think that's a point well taken.

9 MR. GOLDMAN: And then along those
10 lines, the new development of -- source technology
11 have allowed for rapid charging, but then it
12 allows you to create the infrastructure
13 distribution of the energy that's leading some of
14 the fossil fuel needs for that same energy in the
15 vehicle.

16 The example is a rapid charging station
17 through the city that allows a process to meet the
18 energy needs of electricity instead of fossil
19 fuel, thus reducing greenhouse gas emissions if
20 the energy is produced --

21 MR. MCKINNEY: I guess, you know,
22 thinking about electricity use from the resource
23 mix, when we get -- if we tried to measure the

24 incremental changes, the type of marginal analysis
25 that would be involved, I think we have people

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1 within the Commission who know how to do that.

2 But, again, we've kind of focused on
3 some of the big hot topics around natural resource
4 use, water and the biofuels.

5 MS. SCHWYZER: I would just add to that,
6 Jim, I think we've made the point in the
7 sustainability paper, as well, that we're
8 interpreting sustainability to apply to the
9 lifecycle of the project that we're funding.

10 So, for instance, consideration of
11 funding for infrastructure project would take into
12 account the sustainability of the fuel pathway
13 that that infrastructure provides.

14 I'm not sure if that gets at the
15 question, as well.

16 MR. GOLDMAN: Yeah, that's good, thank
17 you.

18 MR. POWARS: I have a question.

19 PRESIDING MEMBER BOYD: Go ahead.

20 MR. POWARS: Okay. My question pertains
21 to --

22 MR. SMITH: Sir, could you identify
23 yourself, please.

24 MR. POWARS: Yes. This is Charles
25 Powars. My question pertains to goal number 10

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1 that Mike presented, and let me apologize ahead of
2 time in that you probably already answered this
3 either in your presentation or other written
4 material, or perhaps even the language of the
5 statute.

6 With regard to ratepayer benefits, do
7 all AB-118 projects have to comply with the
8 ratepayer benefit criteria, or can some of them
9 that may not exactly comply or have issues in that
10 regard be funded by monies other than the PIER
11 funds?

12 MR. SMITH: As the statute is written,
13 only a portion, that portion of AB-118 funds that
14 are directed from our research account, the \$10
15 million, is required -- we are required to
16 determine ratepayer benefits based on our
17 proposed, our investment of that money.

18 So only that \$10 million, not the entire
19 AB-118 allocation or appropriation.

20 MR. POWARS: Thank you.

21 MR. SMITH: Okay, you're welcome. Thank
22 you.

23 MR. SPEAKER: I think Eric Wong has a

24 question.

25 MR. SMITH: Good morning, Eric. Eric?

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1 MR. WONG: Yeah, can you hear me?

2 MR. SMITH: Yes, we can hear you. Do
3 you have a question?

4 MR. WONG: Did the question get relayed
5 to you?

6 MR. SMITH: No.

7 MR. WONG: Oh, okay. There was a
8 discussion that Mike Smith engaged on the ISPE,
9 internal combustion engines having a 40 percent
10 efficiency better than the current market
11 standard.

12 And I'm trying to find the discussion of
13 this in the documents that came out for this
14 workshop today. There were three pdf documents.
15 Is it in those? Is it in a different document?

16 MR. SMITH: No, Eric. I was reciting
17 from the statute, itself.

18 MR. WONG: From the statute, itself.

19 MR. SMITH: Yeah.

20 MR. WONG: Okay. That's fine, thank
21 you.

22 MR. SMITH: Is there anybody else online
23 or on the phones that has any questions?

24 (Pause.)

25 MR. SMITH: Doesn't appear to be,

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1 Commissioner.

2 PRESIDING MEMBER BOYD: Okay, any of you
3 folks out there have general statements, comments
4 or anything else you'd like to make? Yes, sir.

5 DR. KAFFKA: Good morning; my name is
6 Steve Kaffka, I'm with UC Davis and the California
7 Biomass Collaborative.

8 The first comment I'd like to make is I
9 want to congratulate the staff on having done, I
10 think, a very good job of grappling with very
11 difficult concepts and language. Especially
12 around the sustainability standards. It's an
13 interest that I have as an agricultural scientist,
14 and so I appreciate the hard work and clarity that
15 you brought to this.

16 I have three questions with respect to
17 those standards that I'd like to raise. Perhaps
18 they can't be answered today, but in subsequent
19 discussion.

20 In one area you mentioned that water
21 quality emissions, or pollution of water quality,
22 will be measured or compared against standards for
23 petroleum and diesel fuels, if I understand that

24 correctly.

25 I'm having some difficulty understanding

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1 how you would compare, for instance, a landscape
2 effect associated with runoff from a crop or crop
3 production system or crop residue use. Will that
4 be compared to a direct water pollution effect
5 associated with the manufacture and distribution
6 of fuels, or what does that language mean,
7 exactly? So that's the first issue.

8 The second is an emphasis in the
9 sustainability standards that production from
10 presumably landscape sources, they could be
11 forestry sources, they could be waste resources
12 from food processing, they could be landscape-
13 related agricultural production, both either
14 purpose-grown crops or residues, will somehow be
15 expected to meet a standard that exceeds current
16 state regulatory requirements.

17 By way of perspective I think it's
18 important to realize that California probably has
19 the strictest regulations of any state in the
20 United States, and perhaps of any location
21 elsewhere, for environmental regulations with
22 respect to agriculture.

23 For example, we had a symposium last

24 year at the American Society of Agronomy on the
25 relationship between rivers runoffs and coasts.

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1 And we compared the Susquehanna River Chesapeake
2 Bay System, the Mississippi and the San Joaquin
3 River.

4 And by far, California has the most
5 strict standards that goes right up to the
6 individual farm landscape. The State Water
7 Resources Control Board has a runoff regulation
8 program that's relatively new, a few years old.
9 It's taken a few years to get into action, but is,
10 in fact, beginning to work quite effectively, and
11 it's in a constant state of improvement in and of
12 its own, in its own right.

13 So, I think it's important not to set a
14 standard that might be essentially unrealistic or
15 impractical in terms of requirements for the
16 landscape. And I think that we can trust that our
17 regulatory system is going to not only work
18 currently, but will continue to improve from
19 various sources and pressures.

20 Third, there's just a minor comment
21 about the notion of carrying capacity. Carrying
22 capacity is a difficult notion to define. There's
23 been a long history of discussion about how, what

24 kind of human population can the earth sustain.

25 And the estimates in the literature range from

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1 somewhere around 1.5 to 2 billion people, which is
2 way less than we have, to up to 10 to 11 million.

3 The highest estimate come from, believe
4 it or not, was made in the 17th century by van
5 Leeuwenhoek, who invented the microscope; and it's
6 very interesting. He picked about 11 billion
7 people; and how did he do that? Well, he
8 multiplied the number of people per hectare in the
9 Netherlands to the whole world. And came up with
10 a number of around 10- to 11-billion. That's
11 really the high estimate that others currently
12 have made.

13 The lowest is by David Pimentel and
14 others like him. And, in fact, his estimate looks
15 much more like the landscape in Cayoga Heights in
16 Ithica, where he lives, where you have a house on
17 one to two acres. And if you multiply that by the
18 whole world you come up with a lower number.

19 So, it's a relatively difficult concept
20 to apply. Famously, Paul Ehrlich predicted
21 widespread famine by this time in human history,
22 in the 1960s. He was wrong then.

23 So, I think adding language about

24 carrying capacity to regulations adds ambiguity;
25 it adds something rather contentious and difficult

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1 to define. And is really unnecessary in any sense
2 that I can think of in terms of defining
3 sustainability.

4 So those are the three comments I have.

5 PRESIDING MEMBER BOYD: Thank you, that
6 was interesting.

7 ASSOCIATE MEMBER DOUGLAS: That was
8 interesting. I'd like to just throw one thought
9 out in response, which is that this is
10 fundamentally a competitive process for us to give
11 out state funds for projects.

12 And I personally don't think that having
13 a goal, that projects that we fund, competitively
14 show ways of improving current environmental
15 baselines, whether they're resource management
16 baselines or agricultural baselines or whatever
17 they may be, is unnecessarily burdensome.

18 It may be that we get no applications
19 that improve baselines. I hope we do. And what
20 we're doing here is different than, for example,
21 setting up a regulatory program that says
22 everybody has to improve these baselines for any
23 kind of project.

24 We're really setting sustainability
25 goals to help guide us on what we fund, which is

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1 different exercise in that.

2 PRESIDING MEMBER BOYD: Yes.

3 MR. ENGLANDER: If I may ask a question.
4 My name is Phil Englander for the record; up here
5 from Los Angeles today.

6 And my question is in reading the bill,
7 it talks about alternative fuel research. I'm in
8 the automobile industry, and obviously we've seen
9 a major impact in our industry over the last two
10 years with rising fuel prices.

11 And a lot of my clients have said, gee,
12 what's our immediate goal. What can we do,
13 especially for larger vehicles.

14 We've looked at propane versus natural
15 gas. Where does propane fall into this? I know
16 that there's research out there for natural gas,
17 but nobody ever really talks about propane, which
18 may obviously not be the solution long term; but
19 maybe an immediate benefit because of cost of
20 conversion and infrastructure available today.

21 Where is the state looking at those for
22 some immediate needs to be able to use some of
23 those resources?

24 PRESIDING MEMBER BOYD: Shall we call
25 Mr. Propane out of the -- no. Mike, do you want

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1 to make some comments on that?

2 MR. SMITH: Well, I'd like to take this
3 opportunity to talk about renewable --

4 (Laughter.)

5 MR. SMITH: Seriously, propane is one of
6 the alternatives that we considered. If we go
7 back in brief history to a report that we and the
8 Air Resources Board jointly adopted this past
9 fall, actually past December, our AB-1007 report,
10 which produced a state alternative fuels plan, is
11 the proper name.

12 Propane certainly is an option that was
13 considered in that report. It was an option that
14 was shown to have, you know, reasonable greenhouse
15 gas benefits, petroleum reduction benefits.

16 There's confusion about propane in terms
17 of origins. Most of the propane, at least two-
18 thirds, is produced in natural gas wells.
19 Certainly a good portion of it is a byproduct of
20 the refining process.

21 But it does offer an alternative fuel.
22 It offers a reasonably priced fuel. There's
23 premiums that you pay for vehicles clearly. But

24 it does have attributes and benefits that we think
25 would be suitable for investments by AB-118

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1 dollars.

2 The extent to which the Commission would
3 make such investments, of course, would be
4 determined, be guided by our investment plan, and
5 then ultimately by the Commissioners in making
6 decisions about what solicitations, what type of
7 projects we want to see in this first year or two
8 of funding.

9 But generally speaking, propane is a
10 fuel that we have considered very clearly for
11 purposes of greenhouse gas reduction, alternative
12 fuels expansion. And it provides, in some measure
13 it provides consumer choice. Consumers can opt to
14 purchase a propane fuel vehicle, so there's -- it
15 creates that choice in the market that is healthy
16 in terms of competition for fuels.

17 So, does anybody want to add anything to
18 that?

19 PRESIDING MEMBER BOYD: Well, I'll try
20 to help you, Mike. But I think you said it all.
21 It's not excluded. And I have to reflect back to
22 something John Shears said, which is about the
23 evolving technology of modeling, I'll use the

24 phrase sustainability, or modeling even the kind
25 of modeling that's done and the kind of analyses

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1 that we're capable of doing for the so-called full
2 fuel cycle analysis, field-to-wheel analysis, or
3 cradle-to-grave analysis, whatever you want to
4 call it.

5 When we ventured into that pool to do
6 the AB-1007 report, I think we, as I like to say,
7 and some of you are sick and tired of hearing me
8 say we dove into this pool, and took a deeper dive
9 than anybody, I think, had to that point in time.
10 And realized that pool's so deep we can't see the
11 bottom.

12 So, it's going to be an ever-evolving
13 technology and ever-evolving field of knowledge.
14 And as we travel down the path, every day, things
15 change.

16 So at the time we did the AB-1007
17 report, when you look at the criteria such as, you
18 know, a goal of reducing our dependence on
19 petroleum, acknowledging that we have to have a
20 diversified portfolio of fuels, and then you start
21 measuring what do we have out there in the way of
22 technologies, vehicles, if you might, that can use
23 the fuel or that there's a technology immediately

24 available, what do we have in the way of a fuel
25 supply. What do we have in the way of an

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1 infrastructure to provide that fuel.

2 Actually natural gas and propane come
3 out pretty good in that criteria. There isn't a
4 whole lot of propane. And so, you know, that
5 starts to enter future analytical equations.

6 We heard the comments about, you know,
7 the demands on natural gas. And so that's
8 entering into yet another similar set of analyses.

9 And I think as we move forward every
10 day, and as both agencies implement their parts of
11 AB-118, and implement their parts of AB-32, we're
12 going to be asking this question on a regular
13 basis.

14 But from my perspective, kind of
15 building on what Mike just said, you know, if
16 you're looking at the question today, today it's
17 viable. What people have to decide is what's
18 viable day after tomorrow. And what do they want
19 to make, you know, an investment in.

20 And I appreciate the dilemma. I mean we
21 have a goal here, you know, of reducing our
22 dependence on petroleum as fast as possible. This
23 agency's been saying that since 2000. But to take

24 it to 2003 and I hate to say it, but, told you so,
25 America. We have a real crisis right now, and so

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1 we're scrambling to respond to that.

2 So I think there's going to be
3 continuous debate about many of the fuels. And I
4 think the decisions that are made will change
5 regularly as the issue of sustainability and the
6 full fuel cycle assessment really comes into play.

7 Because you start figuring out, you
8 know, where fuels come from, what is the land use
9 impact of some of those fuels, what are the
10 transportation of those fuels half way around the
11 world impacts, et cetera, et cetera.

12 I mean I think there's going to be some
13 really interesting debates, and maybe people will
14 start changing their mind about some things that
15 were absolutely totally off the table. So, we
16 ship them half way around the world and somebody
17 else uses them. And we know now that the
18 pollution comes back here if they're to the west
19 of us.

20 There's going to be some really
21 interesting discussions about, you know, what is
22 the -- what are the real solutions. I wish I was
23 ten years younger to hang onto this a lot longer.

24 But, in any event, today it's viable.

25 MR. ENGLANDER: Thank you.

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1 MR. SMITH: Thank you.

2 MR. STONE: Good morning, my name is
3 Garret Stone and I'm with Aspire Corp in Marin
4 County.

5 I want to mention I've been a member of
6 the low carbon fuel standard working group since
7 last September, so I'm familiar with wrestling
8 with these issues.

9 And appreciate your comment about
10 recently the depth of the pool is so deep that
11 it's hard to see the bottom right now, in terms of
12 many issues.

13 I'd like to -- in the engineering
14 profession we call it a contribution when we're
15 working on making a standard. And I have a single
16 page Word document that I'd like to present to the
17 workshop this morning, if that's possible.

18 I apologize for the ancient computer
19 technology but it's on the form of a floppy disk.
20 Are we organized so that we could take something
21 from a floppy disk and put it up on the screen,
22 or are we not?

23 (Laughter.)

24 PRESIDING MEMBER BOYD: Is there an old
25 computer that we --

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1 (Parties speaking simultaneously.)

2 MR. STONE: I doubly apologize because
3 I'm a former computer guy.

4 (Parties speaking simultaneously.)

5 MR. STONE: Well, we can always add it
6 to the record later.

7 I was working on it last night, so it's
8 all in my head, anyway. But it's about a
9 comparison of biodiesel to ethanol in terms of CO2
10 reduction. And being a member of the working
11 group it struck me many months ago to ask a
12 question of myself, how does that compare? The
13 use of B-20 for our diesel use in California as
14 compared to the use of E-10 for our gasoline use.

15 And it's a very insightful, when you run
16 the math, that apparently if we were to promulgate
17 the use of B-20 it reduces CO2 -- you going to try
18 it? Oh, thank you, it's much easier to follow
19 when the page is up there.

20 But the use of B-20 reduces CO2 by 50
21 percent more than the use of E-10 in California.
22 And I don't know how widely appreciated this point
23 is. I've mentioned it a couple of times in the

24 working group and have not found other people who
25 asked the question and worked on sorting out the

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1 answer. So it may be fresh, which is why I wanted
2 to present it here this morning.

3 It's a straightforward calculation based
4 on pounds of CO2 that burning a gallon of gasoline
5 generates, which is 19.something compared to the
6 pounds of CO2 that a gallon diesel fuel generates,
7 which is 23.something pounds per gallon.

8 And the use of 15.8 million gallons of
9 gasoline actually gasoline, but it's our present
10 California light vehicle fuel, which is, of
11 course, 94.4 percent gasoline and 5.6 percent
12 ethanol.

13 According to the Board of Equalization
14 that was 15.8 billion gallons in 2007. And I'm
15 using the number 6 billion gallons for the diesel
16 consumption. There's some debate about that, and
17 I'd like to kind of march past that, if I could,
18 because we can always change those numbers and
19 improve the calculation.

20 But it's straightforward algebra where
21 you do the calculation of if you have burning
22 gasoline you get so many pounds of CO2 per year
23 from the 15.8 billion gallons. And if it's

24 actually 94.4 and 5.6, the number turns out in the
25 calculation I did to be 307 billion pounds of CO2.

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1 I know you're used to thinking in
2 million metric tons and there's 1205 pounds in a
3 metric ton, to the nearest pound. So that could
4 be easily converted; the probable number for the
5 diesel consumption turns out to be 134, if I
6 remember the number right, billion pounds.

7 Now, if you switch to doing that same
8 piece of algebra using E-10, you don't get to use
9 much more ethanol, which, of course, I'm sure
10 everyone is very familiar with that point, so it
11 doesn't really save you much even though there's
12 many more billions of gallons of light vehicle
13 gasoline, plus ethanol fuel being used.

14 The math I did shows that it comes out
15 to be 2 billion pounds per year is the savings
16 from going from E-5.6 to E-10. Whereas if you do
17 the diesel, the B-10, excuse me, calculation, you
18 save 3 billion pounds of CO2 per year.

19 So, therefore, B-20 against California's
20 2007 actual numbers, I believe they're actual
21 numbers, you get 50 percent greater savings by
22 promulgating the use of B-20 than E-10.

23 PRESIDING MEMBER BOYD: Now, isn't that

24 kind of a comparison highly dependent upon the
25 source of the biofuel? I mean are you -- I mean

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1 we're not using a lot of ethanol here. I'm
2 presuming you're presuming all corn ethanol.

3 But the B-20 component, --

4 MR. STONE: Yeah.

5 PRESIDING MEMBER BOYD: -- you know, I
6 mean if you're talking about, you know, palm oil
7 from one of those terrible places in the world
8 that produces it vis-a-vis some other more benign,
9 you know, bio for the diesel, the calculation will
10 vary depending on where it is and where it comes
11 from and how it's produced and all this, like we
12 said, the bottom of the pool we can't quite see
13 yet kind of --

14 MR. STONE: Absolutely. Very very
15 pertinent question. And I'm familiar with the
16 debate, actually with the GREET model, that the
17 GREET model training right here in this very room,
18 actually.

19 And what I used, because since around
20 January of this year we've had to deal with the
21 deep pool issue of indirect land use change. So,
22 I went back and used the earlier numbers.

23 So this calculation is absent the

24 correction for direct and indirect land use
25 change. What I used was what used to be the

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1 classic number -- there we finally have it on the
2 screen -- the classic number for ethanol which was
3 88 percent. That is a 12 percent savings by using
4 midwest corn ethanol compared to gasoline. That
5 used to be a fairly excessive number.

6 Typically the savings for the use of
7 biodiesel were considered to be a lot better,
8 actually. And for biodiesel, comparing it using
9 the soybean oil. Typically back in January that
10 was considered to be about 50 percent.

11 What I did to bias this in the
12 calculation as much as possible towards ethanol is
13 I used the same numbers. So I simply used 88
14 percent, a 12 percent savings for both ethanol and
15 biodiesel.

16 PRESIDING MEMBER BOYD: Your paper's up
17 there. You want to point out anything more to us?
18 I'm just amazed somebody found a way to do this.

19 (Laughter.)

20 MR. STONE: Actually I finished covering
21 all the points. The details of the algebra are
22 down at the bottom, which right now has
23 disappeared off the screen, in the five notes.

24 And so if anybody wants to dig into it -- and,
25 please, I invite people to do that, because we've

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1 all been known to make math errors.

2 But I think it's correct. And as in all
3 of these issues it's capturing the question in the
4 first place in an accurate way, which is to
5 challenge. And I hope I've done that.

6 So that the big conclusion is right
7 there in the center, that B-20 creates 50 percent
8 more CO2 reduction than E-10.

9 Thank you very much.

10 PRESIDING MEMBER BOYD: Interesting.
11 Thank you. Well, now it's in the record.

12 Are there any other folks in the
13 audience who would like to ask questions, have
14 comments, clarifying comments?

15 Mike Jackson, this didn't entice you up
16 to the podium. Mr. Jackson is the consultant who
17 did a lot of work on our AB-1007 report, and has
18 reams of calculations like that you just saw, I'm
19 sure.

20 Well, this is your opportunity.
21 Somebody on the --

22 MR. SMITH: We may have two,
23 Commissioner.

24 PRESIDING MEMBER BOYD: Good, go for it.

25 MR. SPEAKER: Mr. Soriano?

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1 MR. SMITH: Mr. Soriano?

2 MR. RUBENSTEIN: Hi; this is actually
3 Dave Rubenstein (inaudible) California Ethanol
4 Power producing sugarcane to ethanol facility down
5 in the Imperial Valley.

6 I want to say thank you to the
7 Commission for the hard work in an incredibly
8 complicated project.

9 One of the things we ask is the
10 (inaudible) Commission works through this project,
11 one of the significant hurdles that we're starting
12 to see is the developing technology (inaudible)
13 figuring out exactly (inaudible) that compare
14 against other technologies and other ways that
15 they're being used in the world today.

16 We just wanted to see if there's a
17 chance for -- to help work with the Commission to
18 come up with a standard that we could compare
19 apples to apples. And (inaudible) talk about some
20 of the issues going on. Again, we'd like to help
21 out any way that we can, and try to get a clear
22 blueprint of what (inaudible).

23 MR. SMITH: Thank you very much for the

24 offer. And we may very well have opportunities
25 later this summer where we may be holding forums

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1 of one form or another to delve more deeply into
2 certain technological questions, technology
3 questions, or fuel production questions to keep
4 ourselves abreast of the latest information.

5 And part of that, one of those sources
6 is producers, themselves. So we welcome your
7 help. We're going to need your help and the help
8 of many many others in trying to sift through all
9 these questions and stay afloat in the deep end,
10 as Commissioner Boyd characterizes it.

11 So, thank you, appreciate it.

12 MR. RUBENSTEIN: Thank you.

13 MR. SPEAKER: Karen Hay.

14 MR. SMITH: Karen Hay.

15 MS. HAY: Yes, good morning.

16 MR. SMITH: Good morning.

17 MS. HAY: This is Karen Hay; I'm with
18 EMCO (phonetic) Technologies. We develop fuel
19 systems that allow engines to run on alternative
20 fuels like natural gas and propane. So the
21 vehicle side is something that we're very
22 interested in.

23 We have fuel systems, we have hundreds

24 of thousands of fuel systems throughout the world.
25 We have certified fuel systems at the present time

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1 with EPA, which will allow vehicles in the United
2 States to be converted with our fuel systems.

3 However, the California system that is
4 currently in place makes it prohibitively
5 difficult and expensive to certify vehicles in
6 California.

7 For example, if you're GM and you're
8 certifying an engine that has 100,000 vehicles,
9 the cost per vehicle to certify the -- is
10 relatively small. Given the relative selective,
11 shall I say, fleets that are capable of operating
12 on alternative fuels, we would be certifying say
13 several hundred vehicles at a time, rather than
14 the large amount certified by the OEMs.

15 And the question is would the California
16 Air Resources Board be willing to work with EMCO
17 and similar groups that would perhaps amend the
18 certification requirements that would make it more
19 amenable to entities such as us in order to meet
20 the intent of getting these alternative fuel
21 vehicles in the field.

22 Obviously they're not only from a
23 greenhouse gas perspective, but also given the

24 price of oil, just from a pure financial, as well
25 as an environmental, standpoint. And so I think

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1 this would benefit the state on many levels,
2 including the greenhouse gas issue.

3 MR. PANSON: Hi, this is Andy Panson
4 with the ARB. And I will preface my answer by
5 saying I don't actually work directly in our
6 vehicle certification group, so I can't give you a
7 real detailed answer.

8 But I would encourage you to follow up
9 and get in touch with us offline. And, you know,
10 we should definitely talk more through this issue.
11 But, you know, I guess I'd leave it at that for
12 now.

13 But, you know, we definitely want to
14 figure out ways that we can, you know, help with -
15 - you know, help you with getting your things
16 certified. But I'd definitely like to talk
17 through your specific issues in more detail.

18 MS. HAY: Yeah, I would really really
19 appreciate that. What did you --

20 MR. PANSON: Yeah, it's --

21 MS. HAY: -- I apologize.

22 MR. PANSON: -- Andy Panson, that's

23 P-a-n-s-o-n. And you can definitely find me and

24 look me up on the ARB phone directory.

25 And as a record of this, do we have your

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1 email as part of the -- do we get your contact
2 information as part of the -- okay, I'll make sure
3 I get your contact information and we'll touch
4 bases.

5 MS. HAY: Exactly, not a problem. Okay,
6 I thank you very much, Andy.

7 PRESIDING MEMBER BOYD: Thank you.
8 Andy, I want to warn you, this is not the new
9 issue. It's a very old issue that is resurfacing
10 again because of fuel diversity, so your hair will
11 turn grey if you really stick --

12 (Laughter.)

13 MR. PANSON: It's already started.

14 (Laughter.)

15 PRESIDING MEMBER BOYD: Remember I spent
16 20 years at the ARB. It was not a new issue all
17 those years. It's a continuing dilemma and I have
18 empathy, sympathy for the folks who raise the
19 question.

20 Anyway.

21 MR. SMITH: We'll un-mute everybody, so.
22 Everybody online and on the webcast is now
23 completely un-muted, so if you have any additional

24 questions, please feel free to speak up. Just
25 identify yourselves.

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1 MR. MERCER: Rob Mercer, (inaudible)
2 Technology. Just a quick one, just to back up
3 Karen there. What we were talking about is we
4 have a technology which is available to any
5 production vehicle, being new or old vehicle, as
6 long as it's a fairly late model vehicle, with
7 fuel injection, of course. This country it has
8 been that way for some time.

9 And we're talking about the adoption of
10 European model for a retro -- alternative fuel
11 industry, which is, I guess, world's best
12 practice. And that's certainly (inaudible) works
13 in Europe and also in Australia, where we have a
14 lot of alternative fuel vehicles on the roads.

15 And, in fact, it is working for us in
16 the midwest currently in the States of Utah,
17 Oklahoma and Texas, also, which adopted this
18 policy through the EPA.

19 So, it's very successful. Our phones
20 are ringing off the hook here by, I guess, people
21 who just cannot afford to run large SUVs anymore.
22 And I know there's a lot of (inaudible)
23 information about, you know, people trying to get

24 out of all these contracts and that.

25 So we have a technology which is very

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1 ready to go with some slight changes to

2 regulation.

3 MR. PANSON: Okay, we will follow up

4 with you.

5 MR. MERCER: Terrific.

6 (Laughter.)

7 MR. SPEAKER: Will they assume the

8 warranty costs?

9 MR. MERCER: Thank you.

10 MR. SMITH: Thank you. Anybody else

11 online? I guess not, Commissioner.

12 PRESIDING MEMBER BOYD: Well, I want to

13 thank everybody for your participation today, for

14 being here, for asking questions.

15 This, I believe Mike said, is not the

16 last of the workshops that will take place around

17 this particular subject. So, I know the staff

18 will absorb and consider all that they've heard

19 today. And probably come up with another

20 iteration of the suggestions for the regulatory

21 program, and submit it for public review.

22 So, we appreciate your continued

23 interest in this issue. It's just one of the many

24 facets of the AB-118 program. And having said
25 that, I just want to mention that tomorrow in this

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1 room we will have a meeting of the -- the second
2 meeting of the Advisory Committee that has been
3 set up for the alternative renewable fuel and
4 vehicle technology program.

5 Said Advisory Committee to advise us on
6 the creation of our investment plan for investing
7 in all the kinds of projects you've heard
8 discussed today. And I see some of the members of
9 the Advisory Committee in today's audience. So I
10 appreciate them being here.

11 But, this is a public meeting, and for
12 any of you interested, we welcome you to come back
13 tomorrow, same time, same place, 10:00, this room,
14 to observe and to participate in and, again, it'll
15 be somewhat workshop forum. So there'll be
16 opportunities for public input after the Advisory
17 Committee members have been through the agenda and
18 had their say.

19 We'll have a public presentation on the
20 creation of the investment plan. As you know, the
21 statute provided that we create this Advisory
22 Committee to give us input on an investment plan
23 for investing these monies over the years of this

24 program.

25 So, we've backed these up back-to-back,

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1 two days running, to facilitate some people's
2 travel. So, anyway, I'd just indicate you're all
3 welcome, more than welcome, to participate
4 tomorrow.

5 Mike, anything else you want to bring
6 up?

7 MR. SMITH: No, I don't have anything
8 else, Commissioner.

9 PRESIDING MEMBER BOYD: What else, in
10 terms of the ARB -- okay, well, I thank you all
11 for being here today. And we'll see you hopefully
12 tomorrow.

13 (Whereupon, at 11:55 a.m., the Committee
14 workshop was adjourned.)

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CERTIFICATE OF REPORTER

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

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

IN WITNESS WHEREOF, I have hereunto set
my hand this 20th day of July, 2008.

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