

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
BOARD ROOM
700 NORTH ALAMEDA STREET
LOS ANGELES, CALIFORNIA

FRIDAY, JANUARY 27, 2012
8:52 A.M.

TIFFANY C. KRAFT, CSR
CERTIFIED SHORTHAND REPORTER
LICENSE NUMBER 12277

CALIFORNIA REPORTING, LLC
52 LONGWOOD DRIVE
SAN RAFAEL, CA 94901
(415) 457-4417

APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Ms. Sandra Berg

Ms. Doreene D'Adamo

Mr. Hector De La Torre

Mr. Ronald Loveridge

Mrs. Barbara Riordan

Dr. Daniel Sperling

Mr. Ken Yeager

STAFF

Mr. James Goldstene, Executive Officer

Mr. Tom Cackette, Chief Deputy Executive Officer

Mr. Bob Fletcher, Deputy Executive Officer

Ms. Lynn Terry, Deputy Executive Officer

Ms. Mary Alice Morency, Board Clerk

Ms. Anna Wong, Air Pollution Specialist, Zero-Emission
Vehicle Implementation Section, MSCD

ALSO PRESENT

Mr. Jay Bajarria

Mr. Harvey Eder

Mr. Edward Olson

INDEX

PAGE

Item 12-1-2

Board Discussion	7
Board Member Sperling	10
Board Member D'Adamo	34
Board Member De La Torre	37
Board Member Balmes	41
Board Member Yeager	44
Board Member Riordan	47
Board Member Berg	48
Board Member Loveridge	54
Chairperson Nichols	56
Vote	86
Motion	95
Vote	97
Public Comment	
Mr. Eder	98
Adjournment	100
Reporter's Certificate	101

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

PROCEEDINGS

CHAIRPERSON NICHOLS: Before we get started, I want to try to clarify where we are.

This is day two of our January Board meeting, and it's a continuation of the proceeding that we began yesterday dealing with the Advanced Clean Cars Program.

Yesterday, at the end of the day, or very close to the end of the day, I announced the record was closed because I believed that we had gone through the entire list of witnesses and that everyone who had signed up to testify had either testified or decided not to testify.

It turned out that there was some confusion on the part of two people who signed up who thought that when I indicated that we would be going over a second day that meant they could come back and testify. And so in the interest of keeping this proceeding as open as possible, I have agreed that they could come back today and that we would reopen the record for the very limited purpose of allowing those individuals to testify, which they would have done if they hadn't been confused. So I think it's just cleaning up an error that was made. And I don't believe that means that we need to or that we should reopen the record, otherwise, there would be no end. People could keep coming with more new ideas. So that's going to be the first thing we're going to do.

1 But right now what I'm going to do is call the
2 meeting to order. And we'll do the Pledge of Allegiance
3 as we normally do, and the roll call. And then we'll just
4 get going.

5 (Thereupon the Pledge of Allegiance was
6 Recited in unison.)

7 CHAIRPERSON NICHOLS: The Clerk of the Board will
8 please call the roll.

9 BOARD CLERK MORENCY: Dr. Balmes?

10 BOARD MEMBER BALMES: Here.

11 BOARD CLERK MORENCY: Ms. Berg?

12 BOARD MEMBER BERG: Here.

13 BOARD CLERK MORENCY: Ms. D'Adamo?

14 BOARD MEMBER D'ADAMO: Here.

15 BOARD CLERK MORENCY: Mr. De La Torre?

16 BOARD MEMBER DE LA TORRE: Here.

17 BOARD CLERK MORENCY: Mayor Loveridge?

18 BOARD MEMBER LOVERIDGE: Here.

19 BOARD CLERK MORENCY: Mrs. Riordan?

20 BOARD MEMBER RIORDAN: Here.

21 BOARD CLERK MORENCY: Supervisor Roberts?

22 Dr. Sherriffs?

23 Professor Sperling?

24 BOARD MEMBER SPERLING: Here.

25 BOARD CLERK MORENCY: Supervisor Yeager?

1 BOARD MEMBER YEAGER: Here.

2 BOARD CLERK MORENCY: Chairman Nichols?

3 CHAIRPERSON NICHOLS: Here.

4 BOARD CLERK MORENCY: Madam Chairman, we have a
5 quorum.

6 CHAIRPERSON NICHOLS: Let's then continue the
7 public hearing, which as everybody will recall is dealing
8 with amendments to the California greenhouse gas and
9 criteria pollutant exhaust and evaporative emissions
10 standards and test procedures. I won't read out the whole
11 rest of what it is. It's a package of rules that we're
12 working on.

13 And here are the two names of the people who left
14 yesterday under the mistaken belief that the record was
15 going to be open, Edward Olson and Jay Bajaria. If you
16 would come forward and we will give you each the three
17 minutes that you would otherwise have been entitled to.
18 So whichever order you'd like to speak in, there is a
19 podium right here.

20 MR. OLSON: Board members, my name is Edward
21 Olson with (inaudible) Enterprises. I have been in gas
22 station business and car wash business over 30 years,
23 owning several gas stations in both Orange County and San
24 Diego county.

25 The first major concern I had with hydrogen pumps

1 is the safety of my customers and employees. The pumps
2 will contain like 5,000 to 10,000 PSI. The risk of
3 explosion, especially with the customers is using a cell
4 phone while pumping or if a customer forget the nozzle in
5 their car and drive off is very scary.

6 We live in a busy and fast-paced world, and we
7 have this issue of people driving off with the nozzles
8 occur often at my stations. If this occur with the
9 hydrogen pump, this will not only be costly to the place
10 but can be extremely dangerous to my station and to the
11 customers of our stations.

12 The second major concern I have is the time it
13 will take to install the pumps and how much business it
14 will lose during construction. I may have to shut down
15 for some time and install them. And even if I can't stay
16 open, the space would take by the construction would be a
17 big inconvenience to my customers and it may drive them
18 away.

19 A gas station that has installed hydrogen pumps
20 in south Orange County was shut down for over a year
21 during construction. This be very bad to my business and
22 my ability to provide to my family.

23 The final concern I have is the lack of demand
24 for the product. It's not economically feasible for a gas
25 station owner like myself to take up real estate and tank

1 space to commit to hydrogen pumps. Currently, very few
2 manufacturers are making cars that run on hydrogen. If
3 there is a high business demand, let the market decide the
4 need. For us, adding these pumps, the government
5 shouldn't be forcing small business owners, such as
6 myself, to place unnecessary and unwanted pumps in my
7 station.

8 Thank you very much.

9 CHAIRPERSON NICHOLS: Okay. Thank you, Mr.
10 Olson.

11 Ms. D'Adamo.

12 Before you go, excuse me, if you could stay for
13 just a second.

14 BOARD MEMBER D'ADAMO: I just wanted to say,
15 there have been a number of small business owners that
16 have provided similar testimony. And I don't see anything
17 in this regulation where you would be required to install
18 this infrastructure. And I think you're absolutely
19 correct; that small business owners should not be required
20 to do so.

21 So I hope you leave today with maybe a little
22 more assurance that this regulation is -- the purpose of
23 it is to provide an incentive for a small number of these
24 projects to begin with. Hopefully, you can continue to
25 follow it and have your fears alleviated somewhat.

1 MR. OLSON: Thank you.

2 CHAIRPERSON NICHOLS: Mr. Bajaria.

3 MR. BAJARIA: Let me first thank all members of
4 the Board for hearing my comments.

5 Hello. My name is Jay Bajaria. I own several
6 gas stations with full service car washes in Los Angeles.

7 Let me start by saying I'm just as much in favor
8 of having clean air as anybody here. However, I believe
9 there is a right way to achieve it and a wrong way to
10 achieve it. At my gas station, the primary profit center
11 is the car wash. For me to install hydrogen in my
12 locations require me to close down the car wash to
13 accommodate the footprint of the hydrogen equipment.
14 Effectively, this will put me out of business.

15 Business owners should be able to determine what
16 they do sell and what they don't sell. It should be at
17 the discretion of the business owner whether or not he or
18 she takes existing space and dedicates it to a product
19 that has no demand as of yet.

20 And as for the safety of hydrogen, I would not be
21 comfortable having it on my property from a safety and
22 liability perspective. Often see cars driving away from
23 the pump with the nozzle in their car. I can only imagine
24 the damage and destruction that would be caused by a car
25 driving off with a hydrogen nozzle that is under pressure

1 up to 10,000 PSI.

2 I would ask that you please let business owners
3 and property owners to decide what services to provide
4 rather than forcing it on them.

5 Thank you for your time.

6 CHAIRPERSON NICHOLS: Thank you for coming back
7 and for taking the time. It's been helpful to us to hear
8 these concerns, because I think someone has been out
9 attempting to convince people that this regulation that
10 we're considering would have the effects that you're
11 talking about. And I have to agree with Ms. D'Adamo that
12 there's absolutely nothing in this rule that would require
13 you or any other service station owner to install hydrogen
14 on your property. There is nothing in the rule. Let me
15 say it as clearly as I possibly can that would require any
16 service station to have hydrogen on their property that
17 didn't want it.

18 And the other thing I would say, by the way, is
19 that we also agree with you very strongly that hydrogen,
20 as with gasoline, is a fuel that requires very careful
21 handling. And we do not want to be and don't intend to be
22 a party to anything that is going to increase safety
23 risks. I don't think we would be allowed to be, even if
24 we wanted to, because unfortunately there are other
25 agencies in state government and local fire marshals, et

1 cetera, that have to be involved in all of this.

2 But again, we do have now I think a very strong
3 incentive to see that there is fuel available for drivers
4 that are going to be using the fuel cell vehicles that the
5 car companies are making. And we need to participate in
6 trying to make sure there is a way for them to get this
7 fuel that's safe and manageable. And if you don't want to
8 be part of that program, that's entirely your business.
9 But if we make it attractive enough to you, maybe you'll
10 think about it. We'll just have to see how that goes.
11 But it's not something that we're talking about here
12 today.

13 But appreciate your coming and letting us know
14 what you were hearing and what you're concerned about
15 because we're concerned, too, and we need to take that
16 into account. So thank you.

17 EXECUTIVE OFFICER GOLDSTONE: Could we just say a
18 few words about the safety issue?

19 CHAIRPERSON NICHOLS: Yes.

20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: On the
21 safety issue, the drive away concern, the pump and the car
22 talk to each other electronically. And while the fueling
23 nozzle is connected to the car, the car cannot drive away.
24 So this issue is not true and --

25 CHAIRPERSON NICHOLS: This is with respect to the

1 hydrogen stations that currently exists. There are how
2 many of them?

3 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: They're
4 all like that. There is a connection that says "I'm
5 fueling." And when that happens, the car can't be started
6 up. So when it's connected/disconnected -- right now with
7 gasoline, you can drive away and they have a break away
8 which is a mechanical way of doing the same thing. With
9 hydrogen is a much more sophisticated way.

10 CHAIRPERSON NICHOLS: That's good to know. Thank
11 you for that.

12 Okay. So now, at this point, the record actually
13 is closed and we will not be hearing again from the
14 public. But it's time for the Board now to have a
15 discussion.

16 And my general proposal is this: I'd like to put
17 out on the table the full list of issues that people want
18 to address, if there are proposals you're going to be
19 making for amendments or you'd like to discuss possible
20 amendments, concerns, things you'd like clarified, let's
21 just do this one Board member at a time and try to get the
22 consolidated list together. And then let's figure out
23 where we have support for moving amendments forward. And
24 then finally what I would hope we could do is when we've
25 got the full set of amendments, vote of those each and

1 then vote on the package of regulations and do it all as
2 one vote. I think that will give us the strongest
3 possible sense of the will of the Board as a whole.

4 So I'm just going to start on my right with Ms.
5 Berg -- no. I don't want to start with you. Okay. You'd
6 like to pass for the moment. That's fine.

7 Mayor Loveridge --

8 BOARD MEMBER LOVERIDGE: Pass, too.

9 CHAIRPERSON NICHOLS: Pass, all right. I know
10 that Professor Sperling is not going to pass.

11 BOARD MEMBER SPERLING: All the pressure is on
12 now.

13 Well, I would like to just offer a first comment
14 that we offer a tremendous amount of appreciation and
15 thanks to the staff and to Chairman Nichols for having
16 gotten us where we are. This moment, these actions we're
17 taking, are truly historic and transformational. And it's
18 the leadership of the staff and Chairman Nichols in
19 putting together the deals at the federal level for the
20 greenhouse gas standard and also as part of this, the
21 leadership in working with industry, to come up with a set
22 of proposals that more or less have the support of the
23 industry, both of certainly the automotive industry where
24 most of the actions we're taking with vehicles. And it's
25 transformational. I mean, it's inconceivable, you know, a

1 few years ago that we would be considering kinds of
2 actions that we have on the table, both for the Zero
3 Emission Vehicle Program as well as the greenhouse gas.
4 So I'm honored to be part of this and very excited by
5 this.

6 So jumping into the details here, so I guess I'd
7 start with the LEV III criteria pollutants and the issue
8 of the particulate standard. My only suggestion on that
9 is that we think about an earlier review of the PM2.5
10 standard. And I say that because in terms of going
11 towards the one milligram, and that is because there are
12 the more advanced standards being put in place in Europe
13 and where they're using a particle count approach and it's
14 a different approach. And it's the measurement issues.
15 And I think Tom Cackette brought that up. So I would just
16 put that on the table as an earlier review.

17 CHAIRPERSON NICHOLS: Can I just ask as a matter
18 of curiosity? Is there any objection to just following up
19 on that suggestion? It seems to me to be a perfectly
20 reasonable one. Staff doesn't have a problem with
21 initiating an expedited review on --

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Could I
23 ask what Mr. Sperling means "earlier"? Because we were
24 going to review it in the mid-term review, which would be
25 2017/2018.

1 BOARD MEMBER SPERLING: My understanding is in
2 Europe they're starting this year or next year with the
3 standard for the direct injection technology. So I was
4 thinking more like 2015/2016.

5 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Okay.

6 CHAIRPERSON NICHOLS: All right. Let's just say
7 2015. Done.

8 BOARD MEMBER BERG: Just a review.

9 CHAIRPERSON NICHOLS: It's a review. And staff
10 will report back on the review and, if necessary, we'll
11 make adjustments at that point.

12 BOARD MEMBER BALMES: Madam Chair.

13 CHAIRPERSON NICHOLS: Yes.

14 BOARD MEMBER BALMES: Just on this point, is that
15 going to be too soon? Because I, for one, would like to
16 see the one milligram per mile standard start earlier than
17 2025, if technically feasible. And is 2015 going to be
18 too early to determine that?

19 BOARD MEMBER SPERLING: Well, I think my
20 semi-educated response to that would be that a
21 determination can be made at that point that it is too
22 early. And then we push it off until --

23 BOARD MEMBER BALMES: As long as we can re-visit
24 it.

25 CHAIRPERSON NICHOLS: Yeah, it's not the last

1 time.

2 EXECUTIVE OFFICER GOLDSTENE: The review wouldn't
3 be committing in any way --

4 CHAIRPERSON NICHOLS: It probably would happen
5 anyway, but it's just a good idea to have it written down
6 and the direction be there.

7 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So we
8 may ask questions that are obvious to you, but just to
9 make sure it's on the record so that the proposal would be
10 that the staff proposed standard, which is 2025 through
11 '28 for one milligram, that would still be part of the
12 rule and it's a review --

13 CHAIRPERSON NICHOLS: Correct. We're not
14 changing the regulation --

15 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: -- in
16 2015 and again we'll do one in 2018 to see what the status
17 of technology is then.

18 CHAIRPERSON NICHOLS: Yes.

19 BOARD MEMBER BALMES: I don't know if you want to
20 wait until my turn.

21 CHAIRPERSON NICHOLS: While we're dealing with
22 PM, let's just deal with it.

23 BOARD MEMBER BALMES: I would propose that we
24 consider an earlier adoption of the one milligram per mile
25 at 2022 phasing into 2025.

1 I realize that the manufacturers had some concern
2 about the feasibility of both achieving that target
3 emission and the feasibility of measuring it. And I
4 appreciate those concerns. But I feel confident as the
5 Chair indicated yesterday, they're smart enough to figure
6 it out with enough lead time.

7 So I would like to have that -- I would like to
8 move up the target earlier, but with a caveat that we do
9 technical reviews to ensure that it's technically
10 feasible.

11 CHAIRPERSON NICHOLS: That is a separate issue.

12 BOARD MEMBER BALMES: I know --

13 CHAIRPERSON NICHOLS: So I think I'm going to
14 hold that for the moment, because we have consensus on the
15 one and I don't think we do on the other. So let's -- I
16 think let's lock in what we can agree to and move on.
17 Okay.

18 BOARD MEMBER SPERLING: Sticking with the simple
19 ones, the clean fuel outlet, I don't know if this -- it's
20 simple; I didn't say it's not controversial.

21 There was a question -- it's partly a question.
22 And there was the issue about for the auto makers as
23 Chairman Nichols said we are asking them to give the
24 number of vehicles that they're planning to supply, and
25 there's penalties if they don't meet it. And I know there

1 was some discussion, and I support that discussion and
2 maybe make it be a three-year rolling average. So that,
3 in other words, if they make their forecast or -- their
4 forecast of how many vehicles and they're off one year,
5 that it wouldn't -- because otherwise, they would low-ball
6 the numbers, and we don't want them to low-ball it. So
7 that --

8 EXECUTIVE OFFICER GOLDSTONE: We are consulting
9 to see what the effects would be.

10 BOARD MEMBER SPERLING: And these are the easy
11 ones.

12 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We're
13 struggling on the concept of this. So maybe could ask for
14 clarification.

15 This is specifically focused on when the fine on
16 the auto manufacturers would occur; is that right?

17 CHAIRPERSON NICHOLS: The concern is that they
18 might be, because they're facing a penalty if they
19 over-predict, that they will actually under-predict -- if
20 I may speak for you here. And the suggestion is that if
21 you made the penalty based on a three-year average rather
22 than a year to year, that would help eliminate that
23 problem, that concern.

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah.
25 I guess I was thinking of it in a different way, which

1 would be that if you failed to provide the vehicles that
2 were expected, then it wouldn't -- in the first year, your
3 first estimate, you wouldn't pay the penalty, but only if
4 you failed a couple of times. Is that similar to what
5 you're talking about? In other words, you get a couple of
6 near misses before you --

7 CHAIRPERSON NICHOLS: And you also might want to
8 even it out, because one year they might be selling fewer
9 and one year they sell more because of variation in market
10 demand and supply and --

11 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So it
12 would be kind of like if your three-year average of --
13 your three-year estimates all end up being 80 percent or
14 less than what you said in terms of your actual volume --

15 CHAIRPERSON NICHOLS: If you consistently
16 under-predicted.

17 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes.
18 Our concern is not to not add any fuzziness to the
19 estimates, because the first year estimate is what we're
20 going to turn to this is how many stations are required.

21 CHAIRPERSON NICHOLS: Right.

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So
23 anything that -- I'm trying to make that the best estimate
24 possible for all parties. I just want to make sure we
25 don't do something to make that fuzzier.

1 CHAIRPERSON NICHOLS: Well, the purpose here is I
2 think only to get us the best quality data so that we're
3 not causing money to be spent providing hydrogen that then
4 isn't needed. That's the key to the whole thing. And I'm
5 just not sure this penalty structure that we've come up
6 with is the best possible way of making that happen. But
7 I don't know that we've come up with a better one.

8 EXECUTIVE OFFICER GOLDSTONE: Maybe it would help
9 if Analisa gives a quick overview of the penalty structure
10 that we have proposed.

11 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

12 CHIEF BEVAN: So the manufacturers asked to predict three
13 years in advance what they're bringing and to update that
14 a year later. So now two years in advance. And then
15 stations have to be in place and operational January 1st
16 of the year they projected those cars to come. They have
17 that entire calendar year to place their cars. If at the
18 end of that calendar year they have failed to place the
19 cars they projected two years out, then they might be
20 subject to the penalty, if we can prove they knowingly
21 falsified the report that was sent to us. That's the way
22 the statute is written, knowingly falsified.

23 CHAIRPERSON NICHOLS: It's not really aimed at a
24 person who just innocently makes a mistake.

25 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

1 CHIEF BEVAN: Right. There's lots of situations where
2 that penalty couldn't be brought on them because of things
3 that were outside of their control.

4 I thought of one situation where possibly it
5 might be brought up on them and where they -- let's say
6 predicted or objected they were going to bring \$10,000
7 cars. And then the year they're supposed to come, they
8 decided to send them somewhere else. That might -- you
9 might find a way to show that was a falsification of a
10 report.

11 And what we're trying to protect against is
12 stations being put in and not having any through-put. And
13 if we used a three-year rolling average and the cars that
14 were predicted in year one didn't come until -- plus all
15 the other cars until year three, that's three years the
16 station stands empty and that's untenable.

17 CHAIRPERSON NICHOLS: So are you willing to --

18 BOARD MEMBER SPERLING: It's more the penalty
19 part of it so we don't get the low-balling.

20 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

21 CHIEF BEVAN: It's a \$35,000 one-time penalty for that
22 report.

23 CHAIRPERSON NICHOLS: For knowingly filing a
24 false report.

25 BOARD MEMBER BERG: That's a pretty --

1 EXECUTIVE OFFICER GOLDSTONE: It's a high standard
2 for us.

3 BOARD MEMBER BERG: Ellen? Ellen Peter, could
4 you please give us -- knowingly falsified is a pretty high
5 standard.

6 CHIEF COUNSEL PETER: That's correct.

7 BOARD MEMBER BERG: My understanding.

8 CHIEF COUNSEL PETER: Some of the penalty
9 structures that we have now is strict liability.
10 Basically, you violate it, you violate it. It's different
11 standards. That is an extremely high standard; that's
12 correct.

13 CHAIRPERSON NICHOLS: So Professor Sperling is
14 satisfied on this point. Okay.

15 BOARD MEMBER SPERLING: Good clarification.

16 CHAIRPERSON NICHOLS: So far you're batting 100
17 here.

18 BOARD MEMBER SPERLING: Keeping it more on the
19 simple side, I do want to just make kind of a statement
20 that -- so now moving to the ZEV mandate. So now the
21 really interesting part. So the ZEV mandate -- I'd just
22 like to make one statement. I'm really pleased that we've
23 simplified it. I like that chart where we showed the
24 hybrids go flying off into the horizon and the PZEVs as
25 well.

1 And I like the idea that the principle here is
2 that the ZEV mandate is intended not primarily to reduce
3 greenhouse gases, but to stimulate the investment in and
4 innovation in advanced technology. Get the technology out
5 there. Create the supplier chains. Create market
6 acceptance.

7 And I think that kind of numbers we have, I'm
8 happy with and going up to, you know, a rough estimate of
9 15 percent in 2025. And I would say that we should think
10 about it generally, as that's the end of the ZEV program.
11 That if we actually get to 15 percent, it's a success.
12 And just like the hybrids flew off into the horizon as
13 part of the greenhouse gas --

14 BOARD MEMBER BALMES: Graduated.

15 BOARD MEMBER SPERLING: Graduated. As a
16 Professor -- the same thing would happen with a ZEV.

17 All right. So there are several -- I guess, to
18 me, there's two big issues with the ZEVs. And let me just
19 put them on the table for discussion. One is the
20 over-compliance issue. And I'm convinced that taking
21 in -- with the understanding that negotiations took place
22 and in good faith that that was made and that was a very
23 important part of getting the greenhouse gas program at
24 the national level and with California.

25 But on the other hand, that it does provide a

1 very large benefit to whichever companies you participated
2 in. And that within certain constraints we should try to
3 minimize the effect of the over-compliance program, or at
4 least reduce it. So some of the -- I think the kind of
5 things we can talk about in that are: One, raising the
6 threshold for when companies can participate in the
7 program. But right now that's two grams. So raising it I
8 would suggest to something like five grams.

9 Another part, another aspect of that would be
10 changing the exchange formula, which says how many credits
11 you give up in order to get that over-compliance benefit.
12 How much you give back into the greenhouse gas program
13 that you're not going to use. That would be another part
14 of it.

15 Another would be having the upstream emissions of
16 the electric vehicles count in determining the numbers
17 that are being used.

18 And another would be an earlier reporting date
19 for the companies because right now it's set up as
20 reporting in 2018. I think we want to know earlier
21 whether they're going to participate because that has
22 implications for the whole greenhouse gas program.

23 And the other feature -- and this might already
24 be in it. I'm not sure yet. And that is stripping away
25 all of the special extra credits that were used -- that

1 are used on the federal California program but not used --
2 that should not be used for calculating whether they are
3 overcomplying or not. So in other words, credits for
4 hybrid pick-up trucks, double credit for electric
5 vehicles. So I think that's already in there.

6 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: It is.

7 BOARD MEMBER SPERLING: So those are the ones --
8 let me just leave it on the -- because we're going to have
9 a discussion about that, Chairman?

10 CHAIRPERSON NICHOLS: Uh-huh. Well, let's get
11 out whatever else you want to do to the ZEV program,
12 because I'd like to have a full discussion.

13 BOARD MEMBER LOVERIDGE: Can I just cut in and
14 add on for my own clarification? Because Dan saw this as
15 being good.

16 I just would like to know how we arrived at the
17 percentage. It seems to me 15 percent of the sales 13
18 years from now, the vehicles, rather than being good, is a
19 lot less than I would like to see in the South Coast
20 basin. So how did we -- what was the mathematics that led
21 us to our entry of 15 percent?

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We came
23 up with the number first by going all the way out to 2050
24 and seeing what do we need to have in terms of the vehicle
25 mix in 2050 to achieve the percent reduction and then we

1 started walking back from that. That was virtually every
2 vehicle sold in 2040 would have to be a ZEV and the fleet
3 would turn over by 2050. That's the kind of logic.
4 That's just the goal.

5 And we walked back in time back towards the
6 current time and tried to see how do we get from where we
7 are to that goal. So how do we go from no ZEVs
8 essentially to 100 percent ZEVs between 2018 and 2040 and
9 what does that take.

10 And when you look at the change that has to occur
11 per year in sales of vehicles -- in other words, how much
12 up-take of electric and fuel cell and plug-in hybrid
13 vehicles has to occur each year, it's pretty dramatic.
14 And more dramatic than you normally see for most vehicles
15 in the fleet, including the current Prius type hybrids,
16 which in California took ten years to get to six percent
17 of sales. And the numbers we were looking at to get to
18 2040 were going to be numbers that were maybe twice that
19 per year.

20 So we kind of clipped the top part off and said
21 we can't go too much higher or it's just not reasonable
22 that the market uptake would occur. And so we came up
23 with something near the lower end of what could still
24 arguably put us on the path to 2050. And that was about
25 15 percent. It's not precise. It's not an equation. It

1 was judging as to how fast the market could change and
2 absorb these new vehicles.

3 That's my best explanation I have.

4 CHAIRPERSON NICHOLS: Maybe just a reminder
5 again, because I know we have to keep coming back to this,
6 that we're dealing with the ZEV program as one element of
7 our overall standards. And we're now putting them even
8 more tightly together than we ever have before to try to
9 be coherent about what we are doing.

10 The ZEV mandate is a floor. It is not a ceiling.
11 It is not even a prediction. It is the mandate. You
12 cannot go below it. That doesn't mean we're going to be
13 satisfied if we get to that number. But it is based on a
14 policy judgment that to go higher we need to offer other
15 kinds of incentives to get there. Society also has to
16 play a roll in terms of helping to deal with the costs and
17 the inconveniences and the public education and all the
18 other kind of transformations that are going to have to
19 take place in order for there to be a really successful
20 market for this transformation.

21 Our job as regulators is to do our piece of it by
22 putting the floor under it that without which we think
23 things would perhaps fall apart. But it's not -- we don't
24 have to do the whole job with this ZEV mandate.

25 BOARD MEMBER SPERLING: And the real point on

1 that is that we want the market to take off. And we
2 want -- that means industry and consumers. We can't do
3 that.

4 CHAIRPERSON NICHOLS: So okay. Questions or
5 comments about this? And then I'm going to let the staff
6 respond to the individual points that you made.

7 Well, let me just say one thing maybe in
8 addition, because you raised the whole issue about the
9 over-compliance/optional compliance path, which is what
10 we're really talking about here and alluded to the federal
11 negotiations that lead to the big announcement.

12 And I want to make it clear that the structure of
13 those greenhouse gas regulations, which we agreed to, was
14 one which very much favored the domestic auto companies
15 that make trucks. If California had been designing the
16 greenhouse gas regulations ourselves, we wouldn't have
17 gone with the whole approach, the whole attribute-based
18 approach, the whole idea that trucks get a different path
19 than cars do. This was not California's idea.

20 And when we thought about why it would be a
21 benefit to us to endorse this program, even though I think
22 intellectually we would have preferred to go in a
23 different direction, what we saw was that we had a big
24 stake as Californians in: A, achieving really meaningful
25 reductions in greenhouse gases from the overall automotive

1 fleet, but also that we have an ongoing interest in this
2 kind of transformation that we're talking about and that
3 we needed to bring everybody along.

4 And you know again, to be perfectly clear about
5 this, the companies that are going to be able to take
6 advantage of this program are a tiny number of companies.
7 So far we're guessing two. Could conceivably be more.
8 And what they get out of this is an opportunity to save on
9 some of the costs that they would have to otherwise eat of
10 providing more pure EVs in return for supplying a much
11 larger number than they would ever be required to do of
12 extremely efficient vehicles that are going to make a very
13 big dent in the worlds -- in our contribution, in the
14 United States's contribution, and California's
15 contribution to the world in terms of transportation of
16 greenhouse gases. And in doing so, it's very limited in
17 terms of time and in terms of what it is that they
18 actually have to do. But it's a recognition that we're
19 all in this together in terms of trying to get to the
20 ultimate of the cleanest and most efficient and most
21 advanced cars possible and that people are on different
22 paths. They're not all going to do it the same way, as
23 we've been saying over and over again. They're different
24 mixes.

25 In a sense, as you said, we could declare victory

1 right now because there's nobody that isn't at least
2 working on a full array of zero emission vehicles. When
3 we started, that was not the case. And now everybody is
4 at least made announcements and made investments and
5 they've made promises. But we're still not at a point
6 where they're all competing on a level playing field.

7 And I think what's different about the ZEV
8 program than maybe what some people want it to be or what
9 it could have been, what it could be, is that it really is
10 designed -- this piece of our regulations is the one place
11 where we try to get everybody into the game, everybody
12 working on some form of ZEVs. And we will achieve that as
13 a result of the proposal that the staff has made.

14 So I have no problem with the idea of limiting it
15 in ways that will make sure that it doesn't get abused,
16 doesn't get out of hand, doesn't incentivize people to not
17 continue the work on ZEVs. But I think it's important
18 that we recognize that this isn't something we should
19 feel -- I don't think we should feel apologetic or
20 regretful about having come up with this proposal. I
21 think it was a smart idea that actually helped to bring
22 all of the companies, regardless of their very different
23 positions, into a really historic agreement on a way
24 forward. So let's just keep that as the background as we
25 look at these potential changes.

1 And so I'm just going to say for myself, I think
2 that including the upstream emissions is consistent with
3 our regulations as they already exist. I don't know that
4 that requires a -- I mean, it's not a new concept. It's
5 something that we ought to be able to do. The idea of
6 reporting and keeping track of this data makes very good
7 sense.

8 I'm really not in favor of fiddling with the
9 formula, because I think that then puts us back in the
10 position of trying to redo what was already done.

11 So staff, if you have other ideas about ways in
12 which we could improve this, I would be happy to call on
13 you at this point.

14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE:

15 Actually, no. I think the upstream piece is fine.

16 The date -- moving the date up was a great idea.
17 I think it was suggested -- I think we have already
18 suggested changing it to April of 17. But some date in
19 that time frame would give us -- in the mid-term review,
20 we would be able to refer to the fact that some companies
21 are confident enough to say that they could comply with --
22 over-comply with greenhouse gas standards all the way
23 through 2012, which is a powerful piece of evidence for
24 the mid-term review. And so I think that's another good
25 one. But I would defer all the rest to Chairman Nichols.

1 CHAIRPERSON NICHOLS: What is the limited timing
2 by which companies can use this? That was one of the
3 issues that came up.

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: They
5 can generate the over-compliance starting in 2017 and use
6 it next year. So the time when they can use it to reduce
7 ZEVs in 18, 19, 20, and 21.

8 CHAIRPERSON NICHOLS: Okay. Well, I think we
9 probably need to continue the discussion at least somewhat
10 further.

11 Did you have other two more?

12 BOARD MEMBER SPERLING: Two more.

13 One of them is the BEV X program. And there's
14 two ideas I wanted to suggest. One is the way it's
15 designed now, I'd suggest making it a little stronger in
16 the sense that it does not -- that it should be for a
17 vehicle that has what some call a limp home capability.
18 In other words, that use the electric vehicle part of it
19 almost all the time and that the extra range or the extra
20 capability really is only available for in a sense,
21 emergency or extra use.

22 And the way to do -- so the reason I bring it up
23 is there is no performance requirement for that extra limp
24 home capability. So it could be a full engine with full
25 capabilities to drive -- I guess the 80 miles was the

1 range that was written into it.

2 So I would suggest that -- I don't know exactly
3 how to do it, but that there be the performance criteria
4 attached to it.

5 And this is the way it was originally proposed by
6 the car company that was interested in it so it's
7 consistent with the proposal.

8 And then the other piece would be -- so that's
9 making it more stringent. And the more controversial part
10 might be adding another category in there. I know I'm the
11 guy that always preaches simplicity and streamlining, but
12 I was -- okay.

13 So the bigger idea here is, as I said yesterday,
14 I think we really want -- our primary focus here with the
15 ZEV mandate is to stimulate innovation, stimulate
16 investment in ZEV technologies, stimulate the creation of
17 supply chains for the technology. And what that means is
18 providing companies with the opportunity to experiment, to
19 try different things, to see what the market really wants.
20 And there is an argument against this, and that is we want
21 to get to this pure ZEV as quickly as possible. But I
22 don't think -- I don't feel smart enough to know what that
23 path is.

24 So I'd like to create this extra category
25 inspired by General Motors' suggestion that would have a

1 vehicle that would have a 50 mile electric range, which is
2 exactly what one of the categories in the pure BEV -- the
3 rules for a pure BEV, the first category is 50 miles. So
4 for the BEV X, have it 50 miles, but not let it get -- not
5 let it achieve as much of the pure BEV credit as the BEV X
6 would. So the BEV X, if you do a BEV X, you get as much
7 as 50 percent of your pure ZEV credits, up to 50 percent
8 of pure BEV credits using this BEV X.

9 What I suggest is for this other category that's
10 50 mile range, but it does allow a stronger engine, which
11 would be like a glorified enhanced Volt that in that case
12 it would get only 25 percent. It could be used only to
13 get up to 25 percent of the pure ZEV credits that a
14 company is obliged to meet.

15 So I apologize for the complexity. But I do
16 think it's part of this idea, because we're struck -- when
17 we do these regulations, we just keep creating all these
18 categories, and you can't get away from that. But at the
19 same time, we want to somehow keep to the principle of
20 providing as much flexibility as possible so that there is
21 experimentation and see how the market and the technology
22 evolves.

23 I have one more thing.

24 CHAIRPERSON NICHOLS: Just a minute. Sorry. Did
25 you want to comment on that?

1 BOARD MEMBER RIORDAN: Yeah. Let me understand
2 just what you said with this new category.

3 It is a battery vehicle with a range of up to
4 50 percent, but I'm not sure I understood -- 50 miles.
5 Excuse me -- 50 miles. And then what are you
6 suggesting -- it's coupled with what? There's the limp
7 home engine that we have and this is --

8 BOARD MEMBER SPERLING: So this would not be a
9 limp home capability.

10 BOARD MEMBER RIORDAN: Okay. What would be the
11 range?

12 CHAIRPERSON NICHOLS: You're talking about the
13 Volt?

14 BOARD MEMBER SPERLING: It's an enhanced Volt, a
15 slightly enhanced Volt. And you know, the GM is pushing
16 for it because they say, you know, look. A car like that
17 will potentially get as many EV miles run on pure
18 electric -- will get as many miles running on pure
19 electricity as they argue even possibly a Leaf. But we
20 don't know. We have no idea.

21 And I think we do want to be giving credit for
22 that kind of capability. If a company -- I think that's a
23 really expensive way to do it. I'm not convinced that's a
24 very smart way to do it in the end because you're putting
25 in a big engine, a big battery. It's expensive. I'm not

1 convinced. But maybe it is.

2 So I think the idea is just to allow them and
3 give them credit for -- they need to go back to their top
4 management and they have to say, you know, we want to do
5 this. And it's expensive. But, you know, California is
6 blessing us and --

7 BOARD MEMBER RIORDAN: And also may have some
8 sales potential for somebody that wants a little bit more
9 than limping home.

10 Okay. Thank you. I just needed clarification.

11 CHAIRPERSON NICHOLS: Dee Dee.

12 BOARD MEMBER D'ADAMO: Can I just comment on
13 this? This is the first time hearing it, but I like the
14 idea. I was going to be talking about the minimum
15 requirement for Toyota and some ways to discuss ways to
16 allow flexibility in the name of experimentation just --
17 if a company thinks something is a good idea, why not let
18 them try it?

19 I can't help but go back to this linear credit
20 system, which I think is a terrific way to go on this ZEV
21 category, because for years, we've been putting the
22 categories in boxes and playing around with the credit
23 system. So when we add additional flexibility, the
24 example that you give or perhaps when I get my chance here
25 to talk about that minimum ten-mile requirement, maybe it

1 ought to be tied to some sort of in-use study so that we
2 can get the information when we come back for the view in
3 terms of -- because we're really honing in now on drivers'
4 patterns and behavior as opposed to just what the car is
5 capable of doing. Perhaps it's capable of doing a certain
6 thing, but 100 percent of the time, but we know the
7 drivers are not always going to be behaving the same way
8 every time they get in the car.

9 So I would just add to what you're suggesting,
10 some type of in-use study.

11 BOARD MEMBER SPERLING: And the last point is one
12 that my honorable Board member said she was going to
13 raise, so I will defer to her on the ten-mile threshold.
14 And Dee Dee, take it away.

15 BOARD MEMBER D'ADAMO: Are you ready?

16 CHAIRPERSON NICHOLS: I'm ready.

17 BOARD MEMBER D'ADAMO: Okay. Well, I don't want
18 to take up too much time. You did such a good job going
19 through the issues.

20 But I do want to say this is interesting, that is
21 my fifth ZEV hearing. And I've going to steal a phrase
22 that David Friedman gave us yesterday, and that is we are
23 really looking at climate change here with just the change
24 in climate in dealing with the stakeholders. And I really
25 want to thank industry, in particular. I know everyone

1 has done a lot of work. Mary, you going to Washington.
2 And staff and all the stakeholders pulling this initial
3 agreement forth that help to set the tone for compromise,
4 which is just so unusual in this arena.

5 But in particular want to compliment industry,
6 because in years past, it has always been so difficult to
7 move forward in making any adjustments because industry
8 just for the most part was not engaged. They weren't
9 involved in the dialogue. So it always makes it so much
10 more challenging in order to put policy issues together
11 where you really hope to make a change. If you don't
12 understand where industry is coming from in having an open
13 dialogue, the result is you have to continue to make
14 changes. And you have to have another review and make
15 more changes.

16 So congratulations to everyone and
17 congratulations to the graduates as well.

18 So I absolutely concur on PM standards on an
19 earlier study. I'm going to leave it up to Dr. Balmes on
20 the earlier phase-in date. I agree with Dr. Balmes on
21 what he's saying as far as over-compliance. I really do
22 think that we need to account for the upstream emissions.
23 We worked so hard on that for the low-carbon fuel
24 standard. And it just seems inconsistent for us to have a
25 different policy when we look at ZEVs.

1 I know that Mr. De La Torre has some other ideas,
2 and I'm very open to ways of tightening this up and making
3 adjustments, but that don't break faith with the agreement
4 that you all worked so hard on.

5 With respect to the minimum requirement of ten
6 miles and the test cycle versus something that's maybe
7 more flexible, I just want to open that up for discussion.
8 I suspect that there are others that have strong feelings
9 that we need to stick with what staff is proposing. But I
10 would like to just give my own experience because I was
11 able to drive a plug-in for well over a month. I found in
12 my own situation -- and perhaps just because where I
13 live -- I was either utilizing it to its maximum, getting
14 up as high as 88 miles per gallon, or I was on the road --
15 I live in the valley, so you know, drive long distances.
16 And those situations bringing the overall mile per gallon
17 down to more like 60.

18 And I just think that getting back to what
19 Professor Sperling was saying as far as giving companies
20 flexibility in order to encourage innovation and giving
21 companies the flexibility for their own sense of what the
22 market might welcome, I would like to see some flexibility
23 on this ten mile, how we arrive at ten miles, whether it's
24 the test cycle or some other approach.

25 In the event that my Board members don't agree

1 with me, I'd at least like for us to have a study for that
2 lower mile vehicle that's at around 10, 12, 15, whatever
3 they're proposing, to get a better sense of in-use so it's
4 not anecdotal, my own experience dictating or yours or
5 someone else's dictating how much you want to welcome this
6 type of technology.

7 And again looking at that linear chart. There is
8 a place for it. Maybe the credit ought to be lower or we
9 leave it the way it is. We study it and then we come back
10 and adjust the credit at a later time.

11 CHAIRPERSON NICHOLS: I'm going to start at the
12 other end.

13 BOARD MEMBER DE LA TORRE: I just have two
14 sections where I wanted to make comments, and one was
15 discussed yesterday, so I wanted to clarify.

16 But before I do, I also want to acknowledge the
17 progress. I haven't been here for multiple cycles of the
18 ZEV mandate. But my understanding is there's been a lot
19 of movement there, a lot of re-trenching, a lot of moving
20 backward, sideways, whatever. And this is clearly a move
21 in a forward direction.

22 At the risk of proving each element right, "A
23 foolish consistency is the hobgoblin of simple minds," I
24 think many of us like the idea of a straightforward ZEV
25 mandate. And that's why the over-compliance issue gnaws

1 at us a little bit. But on the other side, we're asking
2 for flexibility in these other areas. So it's an
3 interesting dynamic in terms of where we're coming from.
4 I'll acknowledge that up front.

5 In terms of the car and truck piece, that's the
6 easiest one. Basically, following up on the conversation
7 yesterday that that information be made publicly
8 available, whether it's at the mid-term review or at other
9 points where analysis is done and information is gathered,
10 that that information on the consumer purchasing trends
11 and California's fleet mix based on actual sales, that
12 that information be made public at every step of the way,
13 whether it's a formal date that is already in the
14 Resolution today or something that takes place in the
15 coming years, that that information be made public so that
16 both here in California and at the federal level they can
17 see what's happening in the marketplace with this car and
18 truck dynamic.

19 We don't want to have everything we do here
20 undermined by the manufacturers just shifting production
21 into more flexible vehicles where they get more leeway for
22 pollutants. So that's the first. I think we discussed
23 that yesterday. I think it's fairly straightforward.

24 The second is related to the over-compliance
25 issue, and it's been alluded to. Again, wanting to keep

1 faith with the negotiations and the discussions that you
2 mentioned. These things are just more clarifications of
3 what that over-compliance would be. Number one, ensure
4 that over-compliance is calculated in a manner consistent
5 with full accounting of upstream greenhouse gas
6 emissions -- this is what Dan was talking about earlier --
7 for the ZEVs and T ZEVs.

8 Number two, that the Board re-affirm its intent
9 to have all auto makers meet 2022 to 2025 ZEV requirements
10 as proposed and end the GHG ZEV over-compliance provision
11 in 2021. The Board re-affirm the need for the ZEV program
12 for State attainment of NAQS and recognize the ZEV program
13 separate and stand-alone program from the LEV III GHG or
14 national program.

15 Number three, require manufacturers to apply no
16 later than December 31st, 2016, to be eligible.

17 And number four, monitor the provision over 2014
18 to 2025 and report every two years back to the Board on
19 the number of manufacturers intending to participate their
20 market share and the number of ZEV or T ZEV vehicle loses
21 for California and Section 177 states. That's it.

22 CHAIRPERSON NICHOLS: Staff understand these
23 amendments and what's your view on it?

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah.
25 Several of them we actually worked with Mr. De La Torre to

1 come up with some resolution language that's almost
2 identical to what he stated there. So that all sounds
3 fine to us.

4 I think adding the upstream emissions to the
5 over-compliance agreement is not a deal breaker, I don't
6 think it will be, and does add consistency since in our
7 regs we do count over-compliance upstream emissions. In
8 the Feds, they don't. And so when we bring this back to
9 have a California-specific calculation, it makes sense.

10 CHAIRPERSON NICHOLS: That Resolution is clean on
11 this issue. We've fought this battle with EPA and
12 obviously we didn't succeed. But they recognize that we
13 are taking the position that we are.

14 And actually, I don't think it's telling tales
15 out of school to say that they've agreed that this is
16 something that should be temporary. They don't have an
17 intellectual defense for their position. Their position
18 was it was needed to get electric vehicles started in
19 their view and it's not going to be needed forever. And
20 they realize they're going to have to change, but they
21 just can't quite get there yet.

22 BOARD MEMBER SPERLING: If I could just add to
23 that. In response to some of the car companies saying
24 it's not their responsibility to do upstream, the response
25 to that is that if there are -- if the upstream emissions

1 are taken into account looking across different states,
2 for instance, then they will market them in areas where
3 the benefits are the greatest. And so they do participate
4 in that way and that's the importance signal for us to be
5 sending.

6 CHAIRPERSON NICHOLS: Right.

7 Okay. Any further discussion on this package of
8 amendments?

9 I think consistent with the discussion that we've
10 had before, these are helpful clarifications and support
11 what we're trying to do here. I don't think there's going
12 to be any objections to moving forward. So good work.
13 And thank you. Especially for your very first ZEV.

14 BOARD MEMBER DE LA TORRE: I don't know how to
15 take that.

16 CHAIRPERSON NICHOLS: You're already a ZEV pro.

17 BOARD MEMBER DE LA TORRE: I will say though that
18 with all the PR around and greening car companies,
19 hopefully this whole process helps move them more into
20 practice and reality instead of just press releases and TV
21 commercials.

22 CHAIRPERSON NICHOLS: That's great. Okay.

23 Dr. Balmes.

24 BOARD MEMBER BALMES: Well, this is only my
25 second ZEV meeting. I have to say I felt thrown into the

1 fire the first time. I feel a little bit more battle
2 scarred this time.

3 And I've also met with virtually all the auto
4 manufacturers and many of the environmental NGOs. So I
5 felt like I got a lot of input into these standards.

6 So I'll start with LEV III. And I've already
7 stated what I'd like to put forth. See what my fellow
8 Board members think. I would like to see the cleanest
9 possible air that we can come up with without pushing the
10 bounds of technology beyond what's feasible. And so I'd
11 like to challenge the auto makers to try to meet the one
12 milligram per mile standard earlier than 2025. I think
13 2022 would be a target I would set. So moving the process
14 three years earlier so it would be a phase in from 2022 to
15 2025.

16 We heard testimony yesterday that the auto makers
17 were already concerned about what we have proposed in
18 terms of their ability to meet it with engines that they
19 haven't quite figured out yet and measurement techniques
20 that also haven't been quite figured out. But I'd like to
21 challenge them to try to meet this earlier rather than
22 later. And I think if we are going to have a technical
23 review, we can determine whether it's feasible or not.

24 So that's my proposal is to move it up three
25 years. And I'll see what my fellow Board members think.

1 I've heard from the auto industry that the PM contribution
2 from gasoline engines is relatively minimal, but it's
3 still real. There's still a fraction that comes from gas
4 engines. And I think we need to try to continually try to
5 improve on the emissions from those engines. Decrease
6 emissions from these engines. And I think there is enough
7 lead time that we ought to be able to get there.

8 With regard to ZEV, I like both the proposals
9 that Professor Sperling and Assemblyman De La Torre have
10 put forward. The one item that Dr. Sperling put forward
11 that I'm not clear about what the staff reaction to in
12 terms of the negotiations is the five -- going from two to
13 five grams per mile for the exchange. I liked Professor
14 Sperling's idea.

15 And while I'm on the ZEV over-compliance issue, I
16 wanted to compliment Mr. De La Torre for correctly quoting
17 Emerson -- it's usually mangled and I think that's the
18 exact quote.

19 So with regard to the clean fuel outlet, I'm very
20 comfortable with what staff has proposed. I hope that the
21 MOA process will move forward. I agree wholeheartedly
22 with Ms. D'Adamo that there has been a climate change even
23 since I think February 2008 or March 2008 when we last did
24 ZEV from the auto industry. And I would like to see the
25 oil industry, as Professor Sperling mentioned yesterday,

1 which often calls is the energy industry get on board with
2 regard to building a fuel cell infrastructure that is
3 happening in Germany and in England and elsewhere. I
4 think California needs to be there.

5 It's a time when the State budget is tight. We
6 all know that. It's a time when the State economy is not
7 the greatest. But we need to move forward with building a
8 fuel cell infrastructure. So I hope that the oil industry
9 will get on board as opposed to dragging its feet.

10 CHAIRPERSON NICHOLS: Okay. I think I'll reserve
11 comments until later and just continue on here.

12 Supervisor Yeager.

13 BOARD MEMBER YEAGER: Thank you. And it's really
14 an honor to be able to take the vote we're going to be
15 doing very shortly.

16 I know all of us certainly in public life and
17 working on these types of issues, the environment,
18 transportation, and to actually be able to contribute to
19 changing the environment has been quite an honor.

20 I know that for many consumers the marketplace
21 hasn't provided them what they wanted. I think if you
22 talk to anybody, they wish they could drive more efficient
23 cars that had less pollution. That's everybody's goal.
24 And you know that people are spending way too much money
25 for gas. And they wish they didn't have to spend so much,

1 not only because of their own pocketbook, but what it does
2 for international affairs as well.

3 And the fact that we are going to change what
4 consumers can buy and what they can drive, which is really
5 what they want, is really one of the most important things
6 that we do. I know we're standing on the mountaintop
7 looking at how all this is going to change so many things.
8 But when you think of the individual who's going to go to
9 a dealership and buy the type of car they want to me is
10 very exciting. I don't want to lose sight of that, of how
11 it's affecting the individual citizen here in the
12 United States. And it's very nice to be able to give them
13 what they seek.

14 I know a lot has been said particularly about
15 over-compliance. And I agree with the language that has
16 been provided. I'm also worried about backsliding. It
17 seems like at least we'll be able to understand a little
18 bit more what the auto makers are doing getting that
19 information. So if backsliding does occur, we're able to
20 correct it earlier than later. Certainly the issues about
21 the upstream emissions I agree with.

22 I think the one issue -- and I'm in agreement
23 with Dr. Sperling and Dr. Balmes -- is going to the five
24 grams from two on the over-compliance. And I'm looking
25 forward to hearing staff's reaction to that a little bit

1 more. To me, it seems doable. But I would just want to
2 have that confirmed.

3 I hope we can look at incentives in the future.
4 We've got cap and trade coming up. I want to try to
5 figure out how we might be able to use some of those
6 revenues. I'm hoping some of it will go into being able
7 to serve as rebates for people who buy ZEVs. I know that
8 when Carl Moyer and AB 118 programs are renewed, I'm
9 hoping that again we can look at using some of those funds
10 for incentives.

11 And then just to talk a little bit about Tesla
12 because it's in my backyard and part of the Bay Area, I
13 was working for a Congressman who represented the Fremont
14 area quite a few years ago, and I remember very well when
15 the EM plant closed and the hardship that that caused, not
16 only for all the workers but for the whole area. And then
17 how exciting it was when NUMMI came in and a lot of those
18 jobs were preserved. And we were able to have that
19 partnership and be able to continue to manufacture cars.

20 And then, of course, with the closure of NUMMI
21 and then Tesla comes along. And I had the privilege of
22 taking a tour of the facility last week, and I think we
23 all need to do whatever we can to make sure that
24 California does have a car manufacturing plant here in the
25 state and encourage other type of manufacturing for any

1 number of reasons as far as less shipping and good jobs
2 and producing the types of cars we want.

3 The one thing I'm most nervous about is how
4 over-compliance might affect them and may be going from
5 the two to five is one way to do it. But I know that
6 we're going to have the mid-term reports so we get a
7 better understanding of how many people are using that
8 over-compliance. I know we don't want to go with the cap,
9 but I'm just hoping that we're able to make sure that
10 Tesla remains strong and that their business model which
11 relies so how much on these credits that it still works
12 for them to be able to produce the type of cars that many
13 of us want to hopefully purchase in the future.

14 CHAIRPERSON NICHOLS: Okay. Mrs. Riordan.

15 BOARD MEMBER RIORDAN: Thank you, Madam Chair.

16 We have come a long way. And thinking back to
17 those hearings that I sat through in the early days of
18 this program, it truly is amazing. And I want to salute
19 and commend everybody who's been involved, staff as well
20 as manufacturers, as well as those who have been involved
21 in the research that's brought us to this point.

22 Certainly, I would support much of what Member De
23 La Torre has suggested.

24 And also, Dr. Sperling, I'm very interested in
25 adding and complicating, as you suggest, a little bit more

1 the thought that there would be another category that
2 could provide some incentives for some development of
3 almost BEV X but different. I do like that idea. And I
4 think to move us right along, I'll just end there.

5 CHAIRPERSON NICHOLS: Okay. I'm going to go back
6 to the two colleagues who haven't spoken yet to see if
7 they're interested at this point.

8 Okay. Ms. Berg.

9 BOARD MEMBER BERG: Thank you very much.

10 I, too, want to add my congratulations. My first
11 meeting was, in fact, the Pavley II standard back in 2004.
12 And so I was sworn in in the middle of August. And the
13 first meeting was in the middle of September. And I
14 specifically remember Lynn walking very close to me and
15 saying, "Well, you know, when you enter this room, that
16 isn't always like this." Because what could prepare you
17 for standing room only, 300 people, with cameras in the
18 back? And I remember thinking, "Oh, my gosh," and that
19 commercial don't let them see you sweat.

20 So this meeting was -- the whole process of this
21 was 180 degrees different. I do see that there has been a
22 huge change. I'm very excited about the enthusiasm of all
23 the car companies and the stakeholders that I personally
24 met with. I think we have absolutely the cars coming and
25 I think that we're addressing the infrastructure. There

1 might be some sticky pieces still left in that, but I
2 think we're really addressing that.

3 And I think the one thing that I would like to
4 put on the table and that is the third leg of the stool, a
5 popular analogy that Professor Sperling likes to use
6 really is consumer behavior and consumer choice. And we
7 haven't spent a lot of time with that. I'm really hoping
8 that once we take this historic vote that we will be able
9 to take some of our time and effort and spend that time on
10 consumer behavior and consumer choice. Because without
11 that third leg of the stool, the stool is not going to
12 stand firm.

13 And as a proud Leaf owner with almost 3,000 miles
14 on my car and using the car many times as my primary
15 vehicle, I can tell you that it is a huge change. And we
16 have a lot of work to do there. And if you think about
17 it, we have a lot of work to do to educate the dealers who
18 are going to be selling these types of cars to these
19 consumers. When you talk about moving beyond the early
20 adopters who are willing to go without heat in order to
21 save the mileage to make sure that they get home on their
22 range, that is not going to be commercialization. So I
23 think we really have our work cut out and I really
24 fervently -- I'm passionate about this -- to do that
25 study.

1 So at home today, we had talked about language of
2 harmonization putting on an intent of to harmonize but not
3 at -- but keeping the flexibility that we want to maintain
4 our leadership.

5 CHAIRPERSON NICHOLS: This is on test procedures
6 and other aspects of the implementation.

7 BOARD MEMBER BERG: Correct. And is it the Level
8 III comes out on the federal, where we can harmonize --

9 CHAIRPERSON NICHOLS: I was quite re-assured by a
10 conversation I had yesterday with a representative of U.S.
11 EPA who was with us throughout this process that that
12 really is going forward. But I think it doesn't hurt to
13 have some language.

14 BOARD MEMBER BERG: And you had mentioned that.
15 I'm following that up on mentioning that from yesterday.

16 CHAIRPERSON NICHOLS: Okay.

17 BOARD MEMBER BERG: On the clean fuels, I'd like
18 to follow up on Supervisor Roberts. I really think we
19 need to make a commitment to work with stakeholders,
20 legislators, other agencies to streamline the permitting
21 process. That is such a large piece of the cost. Not
22 only in time, but actual outside consultant, the cost of
23 that is enormous. And if we can help streamline that,
24 that will also make things more efficient, especially on
25 the time line.

1 Also on the fuel cells, I think -- and really we
2 have done this on the ZEVs as well, acknowledge the fact
3 that we are mandating new business models. We're
4 mandating new business models with transportation. And in
5 doing so, that we really need to monitor and keep part of
6 the review process. This has to be a sustainable model.
7 This cannot be a model sustained by subsidies or by
8 companies that we are mandating put these whatever it is
9 in. In this case, fuel stations. So I would like to see
10 as part of the review process that we are asking are these
11 models -- these business models sustainable for the
12 future. They're going to become profitable.

13 On the ZEV, I'd like -- and those two things are
14 just an acknowledgement, Chairman. I'm not suggesting
15 that we need specific resolution, but if my fellow Board
16 members agree, it's just something that will go into the
17 review.

18 But I would like to put on the table and discuss
19 that there is a significant change in the volume from
20 going from an intermediate to the large manufacturer. And
21 if there should not be any other criteria attached to that
22 20,000 cars that would, in fact, acknowledge that there
23 are varying size of companies that have varying dollars
24 and abilities to R&D. Do they really belong in the large
25 manufacturer versus the intermediate?

1 Now that we're bringing intermediates into a
2 commitment, not pure ZEVs, but the next level in 2017, it
3 seems to me we're asking everybody to do their part. I
4 think we want to make sure there is no unintended
5 consequences that we are lumping somebody who should be in
6 the intermediate category into the large category because
7 we have this hard line of 20,000 cars. So I would just
8 like staff's review on that and take a look at should
9 there be anything other criteria that we should be adding
10 to that 20,000.

11 Also on the intermediates, I understand there is
12 a 15-day change. But one of the manufacturers had
13 mentioned that they didn't have the flexibility as the
14 large manufacturers in such things as the 177 states. And
15 I understand that that was something that Tom Cackette --
16 Mr. Cackette, we talked about that. You said that was
17 something you've already addressed and I'm comfortable --

18 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes.

19 BOARD MEMBER BERG: -- with that.

20 And with that, I'm excited that we're including
21 an electric charging piece into the clean fuels. I really
22 think that we need to have that as a priority because
23 we're asking for the electric vehicles to be on the road
24 now. And so I think we do need that behavioral study.
25 And I'm all in favor of not putting infrastructure in to

1 make people feel better. But as I pulled my Leaf in
2 yesterday and asked the parking attendant if they had a
3 plug and went about looking for one with a parking
4 attendant, which I'm very happy to say that they did and
5 allowed me to plug in. As we're commercializing this,
6 this is another big change. And I do think that we need
7 to understand it, because it can't be a one-off thing.

8 So it was a lot of fun, because the parking
9 attendant: A, had not been in a Leaf; had not seen it get
10 plugged in. And I had several people come out when I went
11 up to get my car, because I had to unplug it, and to say
12 to me, "Oh, we had never seen one plugged in." So this is
13 still all brand-new to everybody that we're going to ramp
14 up.

15 And I do think that education, studying, there is
16 a big piece and a big component. I think we should go and
17 find a sitcom that gets a car that as they're having all
18 their drama on the sitcom and pull in, they're naturally
19 plugging in and going into the kitchen because we have to
20 start introducing to people that this is the new reality.
21 And this is the new normal.

22 With that, congratulations to everybody. It's
23 really a great, great job. Well, well done. And
24 congratulations.

25 CHAIRPERSON NICHOLS: Thank you.

1 Okay. Mayor Loveridge.

2 BOARD MEMBER LOVERIDGE: Very, very brief
3 comments.

4 My first introduction to the CARB Board was "Who
5 Killed the Electric Car?" I remember I was very puzzled
6 at what I saw.

7 Second, the comment that Sandy made I think is
8 particularly important that is the marketplace. I cheered
9 what's taking place in the laboratory. We cheered the
10 fact it's gone to the storefront. I think now the
11 question is getting from the lab to the storefront to the
12 streets. I think there is -- in addition to wishing the
13 auto companies well, I think there is a major roll in this
14 marketplace.

15 The third point and the one that I had not
16 anticipated but particularly listening to the Nissan
17 notion of the quick charger, it seems to me that is the
18 kind of transformational idea that you can go to a gas
19 station, not spend the three hours there listening to the
20 radio, but seeing a gas station filling up your battery in
21 the car. You know, if it's \$10,000 for a quick charge and
22 maybe \$10,000 to install, with a modest amount of money,
23 you could get a number of these quick chargers around the
24 state and maybe begin to transform -- and less than
25 difficulty Sandy has trying to make it around this basin.

1 I did want to ask Tom if he would respond to one
2 comment from testimony on Tesla and just to have your
3 reaction to it. This is on their third page of their
4 testimony, Tom. It said this option will also reduce
5 demand for ZEV credits, the sale of which Tesla uses to
6 support its operation of both including further
7 development of EVs and EV power train components. Do you
8 have any comment on this conclusion that they offer?

9 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes. I
10 think the comment was that they are planning on selling
11 the credits generated by Tesla since they're not subject
12 to the regulation. And it's possible that their clients
13 might be people who take advantage of the over-compliance
14 requirement, which means that a company that does that
15 would have its pure ZEV obligation or its obligation
16 reduced by 40 percent on average over the four years. So
17 to see that means those companies would meet the 40
18 percent pure credits. So the number -- the demand for
19 their credits may come down.

20 CHAIRPERSON NICHOLS: I take this particular
21 comment very seriously, just jumping in at this point.
22 Because the State of California has quite an investment in
23 Tesla's success in many ways. And I just want to make
24 sure that people understand that the issue of the credits
25 of the ZEV program has always been one factor in our

1 involvement with the Tesla program, but it's not the only
2 one. And I think it's important to understand that there
3 is a number of different pieces that go into making this
4 company a success. And I don't want to say their success
5 is assured, because it's never -- you can never bank on
6 it. But I think they're in a very good place to do well
7 in the market that's evolving here. And although we
8 certainly would like to have even more opportunities to
9 market the credits, I think you can be carefully watching
10 the situation and make sure that they're not going to be
11 put at a disadvantage. It's a great company. They've
12 done wonderful things I think.

13 BOARD MEMBER BALMES: Madam Chair, if I might
14 just address that point. I think one concern that Telsa
15 expressed to me was not just the potential loss of ZEV
16 credit purchases, but if other companies that are
17 currently collaborating with Telsa in terms of power
18 trains -- Daimler and Toyota right now that I know of. If
19 they chose the over-compliance route -- I'm not saying
20 they would -- but that could impact Telsa more.

21 CHAIRPERSON NICHOLS: But, fortunately, I think
22 we've come up with some ideas for how to keep this thing
23 under control.

24 Back to me. I think there's going to be a couple
25 of items that we're probably going to have to vote on,

1 unless I can persuade folks to do things a little bit
2 differently.

3 But before I get to my comments on some of these
4 items, I actually want to take advantage of this
5 opportunity while we still have at least a good
6 representation of our stakeholders with us, including a
7 number of representatives from industry as well as
8 environmental and consumer groups to specifically call out
9 two members of our staff who don't always attend our Board
10 meetings and may not be known as widely as they should be
11 for the work they've done, but who truly are fathers of
12 the low emission vehicle programs. And that's Steve Albu
13 and Paul Hughes. Steve and Paul, would you both please
14 stand up?

15 (Applause)

16 CHAIRPERSON NICHOLS: That's what they call a
17 spontaneous outpouring of regard and affection.

18 But I just want to say a couple of words here
19 about these two guys because really, they have been at the
20 center of the ARB's entire vehicle program since at least
21 1990 when the first ZEV regulation was adopted.

22 And the program that we are looking at today is
23 not the first time that they've had to reinvent everything
24 that they were doing either because they've done this
25 before, each time finding new ways to continue

1 California's leadership position in the area of passenger
2 cars and light-duty truck emissions controls.

3 Beyond setting tailpipe fleet average standards,
4 they've been involved in ever more controls of emissions
5 of all types going back to the original concept of dealing
6 with evaporative emissions before anybody else was even
7 looking at counting them. And also the whole program to
8 require on-board diagnostics that I mentioned yesterday.
9 I just can almost never stop smiling what I think about
10 the role that California has played in developing of that
11 technology and the whole concept of using the car to
12 monitor itself.

13 They have undertaken technology demonstrations
14 that have proven catalysts worked, that you could do
15 on-board diagnostics and proving the feasibility of a zero
16 evaporative emissions level when people said it couldn't
17 be done. And, you know, they do all this from their
18 relatively modest facilities that we have out there in El
19 Monte tee. I think I can say it's not a palace that they
20 work in. But they have developed a really I think
21 remarkable knack for listening to the industry in a deep
22 way, understanding what's needed and what's possible, and
23 in a very positive way that isn't either adversarial to
24 industry or to the vehicles that they make, but in fact is
25 one of a positive support of nature pushing continuously

1 to find ways to get beyond whatever people thought could
2 be done at the moment.

3 And they've done this also making very
4 conservative cost estimates about what things would cost,
5 which consistently have been undershot by industry when
6 they actually got into complying. They have found time
7 and time again that the companies were able to find lower
8 cost ways of complying.

9 So I really just want to say right now that your
10 commitment to making California a leader here as well as
11 your perseverance is very largely responsible for us being
12 able to be here today. And on behalf of all the Board, I
13 just want to say again thank you very much.

14 (Applause)

15 CHAIRPERSON NICHOLS: Also I have to say that
16 when I was in Washington with Tom Cackette for a good bit
17 of last summer during some of the most horrible heat waves
18 and these guys were constantly looking at all the data and
19 the information that was coming in, you know, from the
20 meetings with the industry, it was really great to know
21 that they were there. And we weren't going to slip into
22 any errors as a result of not knowing what was possible or
23 what could be done. So it's been a great process to get
24 to where we are.

25 I think it's time to bring this to a close. And

1 I think there are a few things that we all agree on, which
2 we can just sort of tick off and some others that deserve
3 maybe a little bit more conversation.

4 So I think we're in agreement on the earlier
5 review of the feasibility of PM2.5. I just want to make
6 sure that Aaron, I think you're our scribe here, Aaron
7 Livingston, our counsel, that we're in agreement on the
8 four items that Hector De La Torre raised, the general
9 comments from Sandy Berg. I think we're all in agreement
10 on, but don't require any specific regulatory language.

11 And so where we have potential changes that have
12 been put forward, which I don't sense that we've got
13 consensus on -- at least I don't have consensus on them,
14 so therefore I'm not hearing consensus -- are fixing some
15 new categories of BEV X, the ten-mile threshold issue and
16 the early phase in of the one milligram per mile PM
17 standard.

18 So let me start with that one first because on
19 its face, you know, I would like to agree to it. I don't
20 have an objection in concept to the idea that we should be
21 pushing for the earliest possible improvements in PM
22 emissions. My concern with that is that we are already
23 pushing the envelope ahead of where EPA is going on the
24 LEV III program. They're not dealing with PM at all, as I
25 understand it, at this point.

1 And to be perfectly blunt, I don't want to do
2 anything that endangers our waiver here. We want to get
3 this package approved as a package. And I think that this
4 is one of those improvements, which as you've said
5 yourself, is in a sense somewhat cosmetic because it will
6 have to be reviewed to determine whether the technology is
7 there anyway.

8 The way the program is now, we have the ability
9 to look at where we are in 2015. And if it seems as
10 though technology has come along, the measurement
11 techniques that people are worried about, they are -- or
12 we've gone to a different approach to measuring particle
13 mass, we wouldn't be precluded from moving ahead earlier,
14 but to lock it in now in the regulations strikes me as
15 being just a little bit pushing too far. So I would
16 prefer not to make that change if I could do that.

17 Yes?

18 BOARD MEMBER BALMES: Well, understand you not
19 wanting to lock it in. What I was proposing wouldn't
20 necessarily lock it in because there would be a technical
21 review.

22 CHAIRPERSON NICHOLS: Right. But the pressure
23 will be on to keep to it. And it would be -- as we've
24 done with other things where we want to keep the pressure
25 on, it's a slight tilting of the balance in the opposite

1 direction. I don't know if staff wants to add anything to
2 that comment.

3 EXECUTIVE OFFICER GOLDSTENE: We always have the
4 option to come back, I think.

5 CHAIRPERSON NICHOLS: Yeah.

6 EXECUTIVE OFFICER GOLDSTENE: Let the review --
7 as we get more information, we'll share it with the Board.

8 CHAIRPERSON NICHOLS: We are already beyond what
9 we know is even potentially possible. Yes.

10 CHAIRPERSON NICHOLS: Yes, question?

11 BOARD MEMBER D'ADAMO: I have a question about
12 the waiver issue, because I'm in favor of this. But the
13 issue you raised about a waiver --

14 CHAIRPERSON NICHOLS: Technical feasibility is
15 one of the issues that's always involved in a waiver, just
16 to be blunt about it. EPA is given the authority to deny
17 a waiver based on lack of technical feasibility for what's
18 in the regulation. I'm not saying that they would or that
19 we would lose. I think know that. But there's enough
20 stuff in the record out there right now to cast
21 considerable doubt about that.

22 DIVISION CHIEF CROES: The technical --

23 CHAIRPERSON NICHOLS: You can do resolution
24 language that says we'd like to get there, that we want to
25 get there. It's actually putting it in the regulation

1 that's the decision -- I'm not sure that's what you're
2 proposing.

3 DIVISION CHIEF CROES: The technical activities
4 already happening. Basically, we're working on the
5 management techniques right now. It's something that you
6 will have the answers in a few years.

7 But I agree with you the basically pushing the
8 bottom early may be risky in terms of all the other
9 problems. When you have the data, like I say, in a few
10 years to be able to make the right decision about things
11 like number count versus mass and what the number levels
12 really should be.

13 BOARD MEMBER BERG: Madam Chair?

14 CHAIRPERSON NICHOLS: Yes, Ms. Berg.

15 BOARD MEMBER BERG: One of the reasons I'm
16 uncomfortable with moving the standard forward right now
17 is I think we don't have enough data on the European
18 tests, which my understanding is particle based and its
19 equivalence to our test.

20 And I got some information yesterday that
21 suggested that if you looked on an equivalent basis for
22 what they know right now, it isn't a one gram in Europe.
23 So I think there's too many unknowns that we are committed
24 to getting the information and coming forth on the 2015.
25 If we can do it sooner, great. We have seen that pushing

1 people tends to be a good way to go. But I think we need
2 more certainty, and I would be comfortable moving on that
3 basis.

4 CHAIRPERSON NICHOLS: If this really was an area
5 where we had gotten information and a strong input from
6 the large and technically competent environmental
7 organizations, I might feel differently about it. But we
8 haven't.

9 BOARD MEMBER BALMES: Well, actually --

10 CHAIRPERSON NICHOLS: I've seen nothing that
11 convinced me.

12 BOARD MEMBER BALMES: Let me -- first of all, I
13 don't consider it a cosmetic proposal, because I think --
14 can I just object to the characterization, because I think
15 it really makes a difference how much PM is emitted in
16 one --

17 CHAIRPERSON NICHOLS: I didn't mean to suggest
18 that we didn't care about the PM.

19 BOARD MEMBER BALMES: And the second thing is
20 I've heard a lot from the mainstream environmental groups
21 I think to group their supporting trying to go to an
22 earlier one milligram per mile standard. That's actually
23 a part of the reason I'm putting it forward. So I think
24 that the mainstream environmental groups are behind that.

25 CHAIRPERSON NICHOLS: Supporting it is one thing.

1 And having the information to back it up is something
2 else.

3 BOARD MEMBER BALMES: I agree with Ms. Berg that
4 we don't have the information. So I would amend my
5 proposal somewhat to say that I would like to have the
6 goal of having the one milligram per mile standard
7 earlier, if technically feasible. So if you don't want to
8 lock it in because of fear about a waiver denial, which I
9 appreciate is an important concern --

10 CHAIRPERSON NICHOLS: It's been stated as a goal.

11 BOARD MEMBER BALMES: Can we state it as a goal
12 that we're trying to get to?

13 CHAIRPERSON NICHOLS: Yes, you can do that. And
14 then I withdraw my objection. And we would probably have
15 consensus on the Board.

16 EXECUTIVE OFFICER GOLDSTONE: We would do that in
17 the Resolution.

18 CHAIRPERSON NICHOLS: Yes.

19 BOARD MEMBER D'ADAMO: So in light of this recent
20 development here, are we bringing it back as soon as we
21 can in order to receive the information from what's going
22 on in Europe and make a better assessment? Is that --

23 CHAIRPERSON NICHOLS: 2015 was already the
24 proposal.

25 Well, I know Bart Croes was here yesterday. I

1 don't know if he's here today. I've asked for a report to
2 the Board on what's going on on this whole issue of
3 measurement, the black carbon issue with relationship to
4 climate change and other particle measurement issues
5 because I think it's time for a technical review here on
6 whether our programs are adequately focusing on the right
7 things. And, you know, we also need to look at methane
8 too. But particularly on the black carbon, there is a lot
9 of information out about the benefits of taking an
10 approach that focuses more on the shorter term very
11 powerful greenhouse gases as well. So I think there will
12 be other opportunities to focus on this issue besides just
13 the review of the LEV standard. Okay.

14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Mary,
15 can I make one comment on this, which probably complicates
16 it for you rather than simplifies it. But the measurement
17 issue, I think there is a high probability can be solved
18 early enough. And, therefore, we'll either change it.
19 The technique will switch to number or something like
20 that. But that's going to be resolved in the next three
21 years, four years I think.

22 The real issue here that causes staff to propose
23 a slower implementation phase is we are convinced that in
24 the 2022 to 2025 time frame when the GHG standards get
25 really tough that there is going to be significant new

1 combustion technologies tried out by the auto
2 manufacturers. And the real issue here is just simply if
3 they develop that technology and when they look at the PM
4 emissions that they thought they were going to control the
5 one gram and they kind of go, whoops, it doesn't do it, we
6 run the risk of losing that technology for GHG while they
7 go back and try to work another year or two to fix the
8 problem. So it's really a risk management -- from our
9 viewpoint, it's a risk management situation and how hard
10 do you want to push the concurrent development of PM
11 control with the GHG control and what happens if it
12 doesn't work.

13 CHAIRPERSON NICHOLS: Well, I think Dr. Balmes'
14 proposal as he has now formulated it is a good way to go
15 because it keeps the issue front and center in terms of
16 what we need, which is both PM and GHGs. But it doesn't
17 force them to do anything that doesn't make sense. So I'm
18 actually quite content with this outcome if others are as
19 well.

20 So then the last bit was the new categories for
21 redefining the threshold for EVs. And I don't know --
22 maybe I'm in a peculiar position here, because I'm arguing
23 for flexibility as we all are on one hand and not for
24 other things. But it seems to me that this effort to sort
25 of reward everybody and make all the children above

1 average is different from allowing people to do the things
2 or allowing competition to bloom.

3 In other words, whether we change our definition
4 of how many miles you need to operate on pure electric or
5 not is not going to have very much impact in my judgment
6 on whether or not Toyota continues to market the plug-in
7 Prius that works the way that Prius does, because they're
8 looking at a worldwide market for plug-in vehicles. And
9 their assessment is that they're going to do better with a
10 slightly more electric version of the Prius than they are
11 with something that pushes for much more battery, because
12 they can do that at less cost and therefore get people
13 used to plugging in and people like Ms. D'Adamo will move
14 on that scale and that will be good.

15 On the other side of the coin, I think BMW is
16 going to pursue their strategy of the small gasoline
17 engine attached to the more powerful EV because they think
18 that's going to be more successful for their customers.
19 And that's a good thing. And you know, we can all have
20 different views about which of these things they buy or
21 lease.

22 The issue really is what do we need this ZEV
23 mandate for. We keep coming back to that. How do we turn
24 it into something that actually is accomplishing something
25 over and above our existing standards. And it seems to me

1 that keeping it as pure, if you like, as we can but
2 relatively limited. As Mayor Loveridge and others have
3 pointed out, the mandate is not that huge, you know. It's
4 nothing like what we're hoping for in terms of what the
5 market is actually going to produce. So are we sending --
6 what kind of signals are we sending in the short term if
7 we start changing our definitions again to try to get
8 people more credit for phasing in of things they're kind
9 of already doing anyway versus trying to keep a goal out
10 there that we're holding people to.

11 I don't want to speak for the staff because they
12 can speak eloquently for themselves on this issue. And I
13 don't want to be narrow minded about all of this either.
14 I really don't want to be contentious about it. I think
15 we're in some danger that we're so euphoric about all the
16 good stuff that's going on out there that we're going to
17 start handing out credits right and left in a situation
18 where it's not necessary and may take focus off of
19 investment in the things that we need people to stay
20 focused on, even while they're trying all these other
21 things out. I hope that's clear. But that's why I'm not
22 very enthusiastic about the proposals from my two
23 colleagues here.

24 BOARD MEMBER SPERLING: Could I kind of address
25 it at the same level that you are?

1 CHAIRPERSON NICHOLS: It's a general comment.

2 BOARD MEMBER SPERLING: There's two different
3 approaches, and who knows which one is right. One is to
4 say we want to get the pure ZEV technologies out there
5 because that's where we want to be and let's not mess
6 around. Let's stay focused on that.

7 Another one says that let's try to get as much of
8 this technology out as many different product lines and at
9 low cost as possible. And that will -- and that will need
10 to as much or more as quick an attainment moving towards
11 it.

12 CHAIRPERSON NICHOLS: My argument is that's going
13 to happen anyway, because that's where the market is
14 going. I think they're not being driven by our ZEV
15 mandate to do all these things. I mean, I'd love to think
16 it was all us. But you know, it's not. It the world is
17 headed in the direction of getting off of petroleum. And
18 they want to sell cars.

19 BOARD MEMBER D'ADAMO: I think in large part the
20 reason we have those graduated seniors is because of the
21 ZEV mandate. We're able to -- we got here and what ended
22 up happening -- and then once we get to the point where
23 that incrementalism has a large enough class, they move
24 on.

25 And so I felt very purist, which is why the

1 over-compliance issue troubled me. So back when we
2 allowed more flexibility for hybrids, for example, I was
3 one of those I saw things black and white. And now I see
4 this whole package in terms of shades of gray. And the
5 reason that in these two areas here the Super Bowls or the
6 Toyota plug-in, the reason I think that we ought to
7 explore this more is now we have even another level of
8 shades of gray. It's not just range, fuel economy, but
9 it's also the driver's behavior and driving patterns. And
10 we just don't know enough about that.

11 So kind of circling back around to my comments
12 earlier. I would at least like to see some further review
13 of this with more in-depth analysis based on use.

14 EXECUTIVE OFFICER GOLDSTENE: Certainly more data
15 for both of these proposals would be --

16 CHAIRPERSON NICHOLS: Data is always good.

17 EXECUTIVE OFFICER GOLDSTENE: Would be helpful.
18 But the affect of what is being proposed does weaken what
19 we're trying to do here. And while we see the basis of
20 the argument, we don't know enough. We were on the BEV XX
21 or whatever we want to call the Volt idea. It would have
22 the effect of lessening GMs ZEV needs, for example. The
23 consequences --

24 CHAIRPERSON NICHOLS: It slows the program down.

25 Mr. De La Torre.

1 BOARD MEMBER DE LA TORRE: I agree with the
2 general concept of having the flexibility. I've had
3 conversations with some of my colleagues about having as
4 much out there as possible so that consumers have a
5 variety of things they can choose from and then we'll see
6 where it all goes.

7 I think that the key point for me on this issue
8 specifically is that they get a one for one credit for a
9 full BEV for these cars. And they're not. And you know
10 maybe it's 80 percent. Maybe it's some other percentage.
11 But it's pretty clear they're not a full ZEV so they don't
12 get the full credit.

13 And I think we need to set some standards and
14 figure out what some corresponding benefit from these
15 vehicles are and then they get a corresponding credit to
16 that benefit. But a full credit is -- I think it's a
17 steep price to pay for that vehicle, even if the consumer
18 wants to get it. There will be benefit to those
19 consumers. There will be benefit to that manufacturer.
20 It just won't be 100 percent. I think that was the most
21 compelling thing that I saw in the discussion over these
22 cars.

23 BOARD MEMBER SPERLING: Let me try to explain
24 though. I mean, I would differ with the assertion that
25 this slows down the program. I would say just the

1 opposite. Because, you know, what we're not saying is not
2 one for one credit. But, for instance, if we had this new
3 category, they're only getting a small amount of credit
4 per vehicle and only has a limited value in terms of as I
5 suggested, for instance, the BEV XX would be only 25
6 percent. And it gets smaller.

7 So the outcome of what we're talking about
8 here -- at least what Dee Dee and I are suggesting is we
9 actually get a lot more vehicles out there and they
10 wouldn't be as -- perhaps they won't be as many as the
11 pure ZEVs, but many more vehicles out there with many more
12 batteries, many more drive lines, longer supply chains,
13 more consumer experience.

14 CHAIRPERSON NICHOLS: They don't need our ZEV
15 program to do that. And in the mean time, we're sliding
16 back into the world of ULEVs and ZLEVs and PLEVs and
17 however many other LEVs there are in the world, which is
18 what we're trying to get away from when we went back to
19 this package of doing everything together. We were trying
20 to make it more simple and more clear. And I think you're
21 being misled by the pattern of what's happening now into
22 thinking that we have to somehow add rewards to keep it
23 going. I really believe that's not necessary.

24 BOARD MEMBER SPERLING: I would just say, you
25 know, looking at the industry, I don't -- perhaps I don't

1 have as much confidence as some people in the room about
2 the investment actually happening and the movement
3 forward. I mean, Nissan sold 10,000 BEVs in the whole
4 state, in the whole country. That's a tiny, tiny number.
5 The cost of that vehicle -- the true cost of that vehicle
6 is far more than what they're selling it for.

7 I mean, a lot of what we're talking about is
8 symbolic. And that is sending a signal that we really are
9 committed to it. We're not prescribing. We aren't
10 prescribing a certain type of technology, but we really
11 are committed to helping both on the consumer side --

12 CHAIRPERSON NICHOLS: We're not helping Nissan by
13 adding the BEV XX. You're making it harder for Nissan.
14 You're undercutting them by doing that.

15 BOARD MEMBER SPERLING: But that's okay. What
16 we're doing is sending a signal that, you know, this is a
17 technology for all the companies to be involved in.

18 The point is it's not moving forward. The point
19 I was trying to make about it, it's got a long, long ways
20 to go. The costs are really high. The industry is losing
21 a lot of money on every one of these vehicles, and they're
22 doing -- and as a result of that, they're not making
23 investment. Nissan really is the only company that's made
24 a sincere major commitment. There's a few other companies
25 like GM that are kind of on the cusp.

1 But we've got a long ways to go to get to where
2 we want to be. And I get nervous that when we start
3 trying to put things into too few boxes. And I would like
4 it to be -- ideally, we have a continuum -- some kind of
5 performance based. And maybe at some point we should go
6 back because we've talked about BEV X. Maybe it's all how
7 many electric miles you get, something like that. And
8 maybe that's an outcome here.

9 CHAIRPERSON NICHOLS: That would be direction to
10 the staff to take a look at a different approach.

11 And we also recognize that things like the
12 efforts that we're undertaking to get the fueling stations
13 in, to look at working with the cities who are key
14 partners in whether or not this is going to be successful
15 if we can't get your home charger installed by the time
16 you bring your vehicle home, you're not going to buy an
17 electric vehicle. There are so many impediments to this
18 market success that are way beyond what ARB's regulatory
19 program does. I just don't -- I really think it's a
20 mistake to keep tweaking our program and seeing that as
21 the main way to get there.

22 Yes?

23 BOARD MEMBER LOVERIDGE: Tom has spent 24/7
24 thinking about this the last several years. His essay --

25 CHAIRPERSON NICHOLS: Absolutely.

1 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: You
2 have two issues here.

3 CHAIRPERSON NICHOLS: The staff rescue us again.

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: You
5 know, I very much respect the division. Let give you my
6 opinion in simple terms and then that's the best I can do
7 at this point.

8 The BMW concept which led to BEV X, which is the
9 long-range battery range, with an APU, my view that
10 vehicle is a BEV. My view is that a Volt with a bigger
11 battery on it that gets 50 miles but can still operate
12 indefinitely on the combustion engine is not a BEV. And
13 that's why we have in the T ZEV category and why it cannot
14 be used to meet General Motors BEV requirements.

15 And this is just a matter of that curve, you
16 know, as to what credit which we think relates to its
17 environmental advantage is. So it's quite a ways down the
18 curve. BEV is at the upper end, the pure ZEV. And the
19 Prius plug at the other end right now.

20 So for the GM Volt concept, staff just doesn't
21 believe that just adding 50 miles makes it a battery
22 Electric vehicle or should it get battery electric vehicle
23 credits that can be used in the pure ZEV category.

24 On the other one, as to whether it sort of comes
25 down to is the Prius concept minimal -- sort of the

1 minimal end of the range is that really even a plug hybrid
2 or not, should it be in this ZEV category or should it be
3 somewhere else. We tried to say that if it was ten miles
4 of driving capability at least it drove like an electric
5 vehicle. Every morning you get in and you get pretty much
6 an electric drive for at least the first ten miles of your
7 trips, which are many, many trips.

8 And this other way it just -- we don't think it
9 will be perceived by consumers being as much of an
10 electric vehicle. And the difference isn't really
11 technology so much, it's that to make it meet the
12 requirements we propose, the issues need to be used in a
13 different battery of roughly the same size, but of a
14 slightly higher cost which would provide both power and
15 range. And so that means it's more expensive, but it's
16 not like it takes their concept and throws the car away
17 and say this whole concept is no longer valid. It just
18 needs a different battery.

19 And for the plug-in Prius itself, it meets our
20 requirement. This is only for bigger cars that use the
21 same drive train. So the real issue here is, well, I
22 guess if you go with the staff proposal, it means Toyota
23 and other people would have to do more development work to
24 provide a power and energy battery that would make a
25 larger car like a Camry or something meet this

1 requirement. And if not, you could largely transfer the
2 Prius plug-in technology into a bigger vehicle. And you
3 wouldn't have to do much to change it and the price of the
4 vehicle would be somewhat lower. That's kind of what's at
5 stake. It's not a good no-go thing. It's a, am I going
6 to -- is this a more BEV like vehicle or is it not.

7 CHAIRPERSON NICHOLS: Dee Dee.

8 BOARD MEMBER D'ADAMO: But so if you could just
9 comment on further study, because some of these vehicles
10 are already out there. For example, the BMW could easily
11 be studied. And I think there was a discussion anyway
12 between the staff and BMW and the NGOs on studying. But
13 what you're talking about, the super Volt, I don't know if
14 there would be an ability to study that. When you say the
15 engine could use it indefinitely, well, it could. But in
16 practice, would it be used indefinitely by everybody? I'd
17 like to get a better sense.

18 And then same thing on obviously the plug-in that
19 Toyota has. That's already going to be introduced. But
20 the Camry, I don't know how involved it would be to study
21 use of it transferring over to that other platform.

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, I
23 think you've really hit on the most important point that
24 has caused the staff to be troubled or coming up with a
25 definitive recommendation. We did ultimately. But that

1 is that we don't have the answers to these because we
2 don't have the cars.

3 We looked at the Prius plug-in, for example, with
4 round-the-block drive a couple years ago. But more
5 recently, some of the staff have been able to drive it
6 more often. And that's where we start getting at least a
7 better impression of how it meets various people's needs.
8 And then if we can collect data over time over a few-year
9 period, we'll have a much better understanding, factual
10 understanding of how this vehicle performs from various
11 consumer and environmental metrics.

12 So I think our approach, which is not in conflict
13 but just different than what Dr. Sperling has said, is
14 that we tended to be more conservative on how to approach
15 this because we don't have any information. And then we'd
16 like to see when these cars become available, you can't
17 drive a BMW I3 equipped vehicle yet because it's not
18 coming out until next year. We don't know the answers to
19 these things. But we chose not to open the range to more
20 and more technologies that might not be in line with how
21 we see the technology needing to go until we actually get
22 the data.

23 And then at that point, as Dr. Sperling said,
24 you're going to go back and re-evaluate what is the metric
25 for this program and is it vehicles miles traveled and

1 stuff. But you need data to do that. So it just made our
2 judgment on is this consistent with the goal we're trying
3 to get to, which is more BEV-like and fuel-cell-like
4 vehicles, rather than some weaker performing vehicles that
5 have a higher fraction of gasoline usage.

6 CHAIRPERSON NICHOLS: So can I push this a little
7 bit to a conclusion here because I think we're ready to
8 see what the choices are. The choices are staff proposal
9 plus a direction from the Board to accelerate your study
10 of the possibility of reframing or going with a direction
11 that was in the original set of amendments that were
12 proposed by Dr. Sperling and Ms. D'Adamo. I think those
13 are sort of -- that's kind of the range of choices here
14 is --

15 BOARD MEMBER BERG: Where does the new
16 performance standard -- I heard the two of you talking
17 about a performance standard.

18 CHAIRPERSON NICHOLS: I think that would be a
19 goal or a potential -- you know, potential outcome or
20 further study would be that we would be reformulate the
21 ZEV program to be more of a performance standard. That is
22 a long-term goal and one that I think we always need to be
23 looking at as a metric of sort of the gold standard of
24 what we would like to be doing as regulators, if we could.

25 DIVISION CHIEF CROES: Where we've drawn the line

1 for our "conservative" approach is how much or whether the
2 engine is needed to operate the vehicle for a significant
3 amount of time. And the lower bound is ten miles for the
4 Prius like and then the lower bond for the ZEV X is 5
5 miles. And I think that was what we used as our best
6 conservative judgment about where the bright line is.

7 But I think the staff is comfortable with I think
8 where you all may be going or some of you to study this --

9 CHAIRPERSON NICHOLS: Let's not presume anything
10 yet.

11 DIVISION CHIEF CROES: For example, BMW is free
12 to provide all the data on the BEV X. We'll know. I
13 think if we can get similar agreements at the lower value,
14 we can look at that as well.

15 CHAIRPERSON NICHOLS: Right. So I'd like to look
16 at these two people here and say what do you want to do?
17 Do you want to have a vote on changing the regulation as
18 it is today up or down? Or do you want to reformulate
19 your proposal as a Board directive to staff to do the kind
20 of analysis that they say they intend to do and bring it
21 back to us?

22 BOARD MEMBER SPERLING: I think philosophically I
23 feel strongly enough that we should be going in the
24 direction of encouraging more experimentation that -- and
25 in a way that leads to lower cost.

1 And I'm not so worried about getting specific
2 reductions or exact number of BEVs out there. I'd like to
3 get more. So I'd like to stick with my proposal. And you
4 know, it's not -- in the end, this is a huge success no
5 matter how it turns out. And these are relatively small
6 changes. But I think philosophically I believe in it
7 strongly enough philosophically I think we should be
8 ending that message and going more in that direction. And
9 I think the implication is if we did accept it, these are
10 pretty small changes. But I think they're important
11 enough that I would like to --

12 CHAIRPERSON NICHOLS: Okay. Do you want yours
13 lumped in with that or not?

14 BOARD MEMBER D'ADAMO: We can. I would support
15 you and then also with the flexibility on the lower -- my
16 backup is to have a study. So hope we can bring it back
17 to that.

18 CHAIRPERSON NICHOLS: All right. I think we need
19 a roll call vote? And everybody understands the proposal
20 on the table?

21 BOARD MEMBER BALMES: Can you restate the
22 proposal?

23 CHAIRPERSON NICHOLS: That's what I was about to
24 do. I think I can shorten it.

25 It's that the motion made by Dan and seconded by

1 Dee Dee is in two parts. One is an addition of a new
2 category for the BEV XX. And the other is to change the
3 ten-mile threshold for being classified as a BEV to an
4 equivalency concept, which will have a score of ten miles
5 overall on electric as opposed to ten solid miles.

6 BOARD MEMBER SPERLING: And allows for -- makes
7 it easier for larger vehicles to come in as a plug-in
8 hybrid as well.

9 CHAIRPERSON NICHOLS: That would be the affect of
10 doing it. Okay. And --

11 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Before
12 you do it, there was one other -- you had mentioned on the
13 BEV XX, which is the Volt, having it limited. Is that
14 part of the proposal?

15 BOARD MEMBER SPERLING: Yeah, 25 percent.

16 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: You
17 could only use it for 25 percent of your pure
18 ZEV requirement.

19 CHAIRPERSON NICHOLS: Pure ZEV requirement.

20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE:
21 Whereas, the two BEV X is limited to 50 percent.

22 CHAIRPERSON NICHOLS: Okay.

23 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

24 CHIEF BEVAN: What model year that would start?

25 CHAIRPERSON NICHOLS: I can't understand --

1 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

2 CHIEF BEVAN: What model year would that be allowed?

3 CHAIRPERSON NICHOLS: What model year do you
4 intend for this to start in?

5 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

6 CHIEF BEVAN: I bring that up, because that could very
7 significantly impact zero emission vehicles being
8 delivered in the next few years if it was an early start.
9 These manufacturers have a lot of credits we were hoping
10 they would be spending now so we would see actual product
11 coming to market. It appears the categories of fuel
12 cells --

13 CHAIRPERSON NICHOLS: This is going to extend the
14 lifetime of those credits --

15 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

16 CHIEF BEVAN: Oh, yeah.

17 CHAIRPERSON NICHOLS: -- beyond what you envision
18 being able to use the credits they already have. Thank
19 you.

20 ASSISTANT CHIEF COUNSEL LIVINGSTON: There are
21 two items I'm not sure were covered. One was ensuring
22 that upstream emissions around and encapsulating
23 over-compliance.

24 CHAIRPERSON NICHOLS: We've concurred on that
25 one.

1 ASSISTANT CHIEF COUNSEL LIVINGSTON: Sorry.

2 The other one that manufacturers report no later
3 than December 31st, 2016, on whether they're choosing
4 over-compliance.

5 CHAIRPERSON NICHOLS: I think that's a consensus.
6 That's part of the regulatory amendments. They've all
7 agreed on. This is the only item in contention and then
8 we're going to get to the actual package.

9 So Madam Clerk, please call the roll. You can
10 vote yes or no.

11 EXECUTIVE OFFICER GOLDSTENE: Chairman, we still
12 need an answer --

13 CHAIRPERSON NICHOLS: A nay vote means we go back
14 to the staff proposal.

15 EXECUTIVE OFFICER GOLDSTENE: We need an answer
16 from Professor Sperling about the start date because it
17 does have to --

18 CHAIRPERSON NICHOLS: Oh, that's right. Just to
19 be clear, if you vote no, you're going back to the staff
20 proposal.

21 Sorry. The question is what model year does this
22 begin with? Never do anything arbitrary. It's open to
23 discussion.

24 BOARD MEMBER SPERLING: I'm willing to defer to
25 staff on what would be --

1 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: The
2 logical choices I think are soon or 2018.

3 CHAIRPERSON NICHOLS: Either do it --

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: And the
5 implication is there would be fewer BEVs I think in the
6 earlier years because more credits could be used because
7 these generates more credits if it starts now. If it
8 starts in 2018, it will be a lesser -- well, same impact
9 but it will be relatively lesser, I guess.

10 BOARD MEMBER SPERLING: I'm okay with 2018.

11 BOARD MEMBER BERG: Does that lessen the impact?

12 SUSTAINABLE TRANSPORTATION TECHNOLOGY BRANCH

13 CHIEF BEVAN: Yes, it does to some degree.

14 CHAIRPERSON NICHOLS: Okay. Let's call the roll.

15 BOARD CLERK MORENCY: Dr. Balmes?

16 BOARD MEMBER BALMES: Oh, boy. I have to go
17 first. I know why Sandy was glad I came on the Board.

18 CHAIRPERSON NICHOLS: You can pass and get called
19 on later.

20 BOARD MEMBER BALMES: I think I will actually.

21 CHAIRPERSON NICHOLS: He's deferring.

22 BOARD CLERK MORENCY: Ms. Berg?

23 BOARD MEMBER BERG: Deferring.

24 BOARD CLERK MORENCY: Ms. D'Adamo?

25 BOARD MEMBER D'ADAMO: Aye. Bravo.

1 BOARD CLERK MORENCY: Mr. De La Torre?

2 BOARD MEMBER DE LA TORRE: No.

3 BOARD CLERK MORENCY: Mayor Loveridge?

4 BOARD MEMBER LOVERIDGE: No.

5 BOARD CLERK MORENCY: Mrs. Riordan?

6 BOARD MEMBER RIORDAN: Regretfully no. But
7 certainly support a study.

8 BOARD CLERK MORENCY: Professor Sperling?

9 BOARD MEMBER SPERLING: Yes.

10 BOARD CLERK MORENCY: Supervisor Yeager?

11 BOARD MEMBER YEAGER: No.

12 BOARD CLERK MORENCY: Chairman Nichols?

13 CHAIRPERSON NICHOLS: No.

14 BOARD MEMBER BALMES: Regretfully no for Balmes.

15 BOARD MEMBER BERG: Yes.

16 BOARD CLERK MORENCY: Ms. Berg?

17 CHAIRPERSON NICHOLS: Okay. You can give us the
18 tally.

19 BOARD CLERK MORENCY: The motion is defeated,
20 three to six.

21 CHAIRPERSON NICHOLS: Thank you. So the staff
22 recommendation prevails. Good discussion, everybody.

23 And we still want I think to bring back a
24 question of asking the staff to do a study on these items.
25 And we don't need to have a roll call vote on that one.

1 EXECUTIVE OFFICER GOLDSTENE: We'll incorporate
2 that into the Resolution.

3 CHAIRPERSON NICHOLS: Yes. The direction to do
4 the study goes into the Resolution. Absolutely. All
5 right. I believe that --

6 BOARD MEMBER BALMES: Mary?

7 BOARD MEMBER DE LA TORRE: On the study issue,
8 the scale that is being discussed, I think that's a
9 conversation we need to have that is flushed out that as
10 soon as staff can take us in that direction. Because I
11 think it should be a broad discussion of how do we do
12 that, how do we peg it to performance and make the credits
13 for performance across the board.

14 CHAIRPERSON NICHOLS: Maybe before you do a study
15 you actually come back with a study design for what you
16 plan to study and bring that to the Board. That ought to
17 be something you could do in like six months.

18 EXECUTIVE OFFICER GOLDSTENE: We're having a
19 discussion about whether or not we can compel the data to
20 be submitted to us or not.

21 CHAIRPERSON NICHOLS: Whether we have sufficient
22 information?

23 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah, I
24 think before even the study, we need to know can we get
25 the information, which right now how it's operated is

1 contained in the computer on the vehicle. And the vehicle
2 manufacturer has to be willing to provide that data so we
3 can either come up with a mandate that says you must
4 provide data or we can just simply condition -- if you
5 don't provide data, I guess maybe in the future you don't
6 get the benefit of some positive change. So I think
7 everybody would want to do it, but

8 BOARD MEMBER D'ADAMO: If an auto maker requested
9 additional flexibility, they need to provide the data.

10 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I think
11 we're okay with the Resolution.

12 CHAIRPERSON NICHOLS: Okay.

13 BOARD MEMBER BERG: Madam Chair, the only thing
14 we really haven't discussed is the volume change and if
15 there should be any other criteria.

16 CHAIRPERSON NICHOLS: Oh, right, for the
17 intermediate.

18 BOARD MEMBER BERG: For the intermediates. And I
19 would appreciate the comment from staff on that.

20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We were
21 unclear on what the outcome is on over-compliance in
22 general in the various proposals. Is that still on the
23 table?

24 CHAIRPERSON NICHOLS: There's no further items on
25 the table. We agreed with Mr. De La Torre's four points,

1 and that was it.

2 BOARD MEMBER BALMES: Did we resolve the proposal
3 by Dr. Sperling, the two gram going to five grams?

4 CHAIRPERSON NICHOLS: I refused to bring it up.
5 Prerogative of the Chair.

6 BOARD MEMBER BERG: Sounds like resolution to me.

7 CHAIRPERSON NICHOLS: Not happening.

8 BOARD MEMBER BERG: On the volume change, is that
9 the same --

10 CHAIRPERSON NICHOLS: I'm happy to have a
11 discussion about that, but you need to be -- we need to
12 have a discussion on what we're doing with that.

13 BOARD MEMBER BERG: The question to staff is --
14 and I understand that we have moved the volume from 60,000
15 to 20,000. Should there be any other criteria, global,
16 ranking, any other criteria to make sure that we do not
17 have any unintended consequences of moving a manufacturer
18 from intermediate to large volume that really doesn't have
19 the ability to compete in that arena. That's the question
20 for staff.

21 AIR POLLUTION SPECIALIST WONG: I think staff is
22 open to adding more criteria. I think we need direction
23 on what that criteria should be because some of the
24 manufacturers that are affected by this change, something
25 like a worldwide sales volume doesn't help them very much.

1 So I'm not sure what other criteria we're looking for, but
2 we are very open to adding other criteria to the size
3 definition of 100 percent. I don't know what that
4 criteria should be.

5 CHAIRPERSON NICHOLS: Maybe I'm confused about
6 two different issues. I thought that this was a problem
7 that might be able to be solved by giving people who were
8 just coming into that category as much time as they would
9 have had. In other words, there was an issue about how
10 much time people had to build up to the full compliance.
11 Is that the same issue?

12 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That
13 was brought up by VW. It seemed like it was a separate
14 issue.

15 CHAIRPERSON NICHOLS: It's not the same.

16 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: It was
17 when you buy a company, does it make you become a large
18 manufacturer? And the suggestion was just make everybody
19 2018.

20 I think back on what the criteria are, I guess I
21 would be more persuaded by looking at it for a couple
22 years and seeing what they're doing. Because we did have
23 sort of the dichotomy of, no, we don't have the resources
24 to be a big manufacturer, but gee, we're developing the
25 BEV, for example. So how does that play out? The

1 marketplace, as Ms. Nichols said before, may be what
2 drives them to have to be competitive.

3 BOARD MEMBER BERG: They need to be competitive.
4 There's no question about that. Because this is the
5 direction.

6 And so certainly not to jump on the train, in my
7 opinion, would not be a sustainable decision. That said,
8 we do have a huge range. If you look at the graph between
9 who is in now the large volume manufacturers. And I just
10 want to make sure there is no unintended consequences.

11 I'm very happy with if we agree that we will
12 monitor it and that our goal is not to transfer an
13 intermediate manufacturer into the large category that
14 truly doesn't have the research budget, the sales, the
15 volume to be able to compete. And we can leave it at
16 that. And if somebody comes and makes a compelling
17 argument that they certainly know they can call me as
18 well, then we can take it up from there. But I think we
19 have to be sensitive to the fact we have made a huge
20 change and there could be some unintended consequences.
21 And we need to be willing to look at that. I'm happy with
22 that, Madam Chair.

23 BOARD MEMBER BALMES: Mary, I would just like to
24 add my support to what Ms. Berg has said.

25 Since we've been mentioning other companies

1 specific -- and maybe it's because I was a proud RX7
2 owner, I do think Mazda is a somewhat special case here
3 and the fact they've been divested from Ford which was
4 carrying their R&D budget for a considerable amount of
5 time. So I do think that this is an issue that we need to
6 monitor. I'm comfortable with what was just discussed.

7 CHAIRPERSON NICHOLS: Okay. Thank you.

8 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: You
9 brought up the VW thing. Do you want to deal with that?

10 CHAIRPERSON NICHOLS: Well, I think as I
11 understood it that they're probably going to get their
12 situation resolved.

13 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No. I
14 think the issue was they're going to become big. But they
15 will be subject to the full ZEV mandate in 2018. Or if
16 they buy Porsche, does that action of buying Porsche mean
17 that they have to meet it in '17 or '16?

18 CHAIRPERSON NICHOLS: I see.

19 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That
20 was the only -- the distinction of the current regulation.
21 They brought into question is whether it made sense.

22 CHAIRPERSON NICHOLS: I'd like to fix that to
23 give them the same amount of time that anybody else would
24 have gotten. Is that okay? All right. Thank you for
25 bringing that back.

1 Are there any other hanging issues? Any
2 other areas of confusion, or are we ready to move to a
3 vote?

4 BOARD MEMBER YEAGER: Other than the five grams.

5 CHAIRPERSON NICHOLS: I'm sorry. Five grams.

6 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: This
7 was my question before. If the five grams and everything
8 other than including the upstream emissions, was that
9 decided or not as part of the over-compliance agreement
10 and that's all we were asking.

11 CHAIRPERSON NICHOLS: Well, I think this is
12 completely inconsistent with the discussions that we had
13 at the national level. And I cannot support it. And I
14 would really ask you to forgo having to put yourself out
15 there to show your cojones by voting for it. I mean, what
16 is the point here? We can't do it. I can't let you go in
17 this direction.

18 BOARD MEMBER BALMES: I thought it was an
19 unresolved issue.

20 CHAIRPERSON NICHOLS: Okay. But now I want to
21 bring it back again.

22 BOARD MEMBER BALMES: I think Mr. Cackette was
23 also unclear what we were going to do with that. So I
24 just wanted to be clear.

25 CHAIRPERSON NICHOLS: Well, I would like it to be

1 clear we're not making a change. But I don't want to --
2 if you want to vote on it, we can do another roll call
3 vote. Okay. We're not doing another roll call vote.
4 Okay. Thank you. I'm sorry. I misunderstood. I thought
5 that was where we were.

6 I guess it's been a long discussion. And I'm
7 sorry if I confused any of you.

8 I've been asked to make an announcement that ten
9 minutes after we vote there's going to be a conference
10 call that's for media only. Our communications people
11 have set this up. So if there's anybody listening on the
12 web who is media who wants to call into this conference
13 call, the number is 1-800-619-3420. 1-800-619-3420. And
14 the password for the call is "clean cars." That's a good
15 password. And if you're not media, I guess you're not
16 allowed to call one way or the other.

17 All right, folks. I think we're done, except for
18 the final vote. So --

19 BOARD MEMBER D'ADAMO: Move adoption.

20 BOARD MEMBER SPERLING: Second

21 CHAIRPERSON NICHOLS: Any other comments that
22 anybody would care to add at this point?

23 I just want to thank you all. It has been a
24 terrific process. And I know that all of the proposals
25 that we have received have been in the direction of trying

1 to make this program more effective. There's never been
2 any question about it.

3 I do have one other thing I would like to
4 mention, because we've moved sort of beyond the clean fuel
5 outlet discussion very readily, because really nobody
6 seemed to have any proposals that they wanted to make,
7 which is fine. I'm completely in support of it.

8 But I just want to say for the record and before
9 we conclude this proceeding that I remain very hopeful
10 that this is an issue that we can resolve through
11 discussion with the industry and that we really want to
12 send the strongest possible message that we are open to
13 solutions that don't involve invoking the regulation but
14 would build on the good discussions that have already been
15 held about the memorandum of agreement.

16 We are not in a mode to try to force people to
17 build stations that they don't want to build. We know
18 there are businesses out there that do want to provide
19 clean fuels that the market is going to need and that just
20 need a little bit of financial help to make that happen.

21 We think that today's fuel suppliers have a role
22 to play, that they should play, that they should want to
23 play in bringing these other fuels in line. And that it's
24 particularly appropriate for companies that currently use
25 hydrogen and make hydrogen as part of their processes to

1 be involved in helping to bring the hydrogen to where the
2 consumers are going to need it for the new fuel cell cars
3 that are coming.

4 So I think that ought to be clear, but I really
5 am distressed that it seems to have been the case that,
6 you know, there was felt to be a need to go out and tell
7 small business owners that they were going to be facing
8 requirements to put dangerous fuel on the properties and
9 to spend money that they don't have in order to serve this
10 new market when, in fact, the exact opposite is true, that
11 we're actually opening up opportunities for small
12 businesses here to be selling a product that they can't
13 currently sell because it's not being made available to
14 them.

15 So I really hope that whoever is listening here
16 will take this message in spirit that it's meant and
17 respond in a positive fashion.

18 And with that, I will call the question and ask
19 everybody that's in favor of this package of advanced
20 clean car amendments that we now have before us to say
21 aye.

22 (Ayes)

23 CHAIRPERSON NICHOLS: It is unanimous.

24 And I want to thank everybody who stuck with us
25 to the end for this. And wish you all a great journey

1 back to where you are headed and thanks for being a part
2 of it.

3 We do have -- I'm sorry. I was handed a name of
4 a person who wishes to address the Board during the public
5 comment period. We do have a public comment period. It's
6 required. And we should do this before we depart. So
7 before we adjourn Harvey Eder is the only person who
8 signed up for the public comment period. You have three
9 minutes to address the Board.

10 MR. EDER: Good morning. My name is Harvey Eder.
11 I'm with the Public Solar Power Coalition. And I want to
12 talk to you about solar energy and solar conversion in
13 general, but more specifically now about the low carbon
14 fuel standard that was at the meeting last week, December
15 16th. I want to incorporate into the record everything
16 from the low carbon fuel standard and participating in
17 that, the biggest competition for solar is national gas.
18 The price is down close to the lowest it's ever been.

19 And fracking for natural gas is going on now.
20 And this was not looked at over the last several years in
21 the Scoping Plan leading up to a November -- excuse me --
22 February '09 study done on LNG and CNG. There were
23 omissions of the staff in three areas, in fracking the
24 multiple use for natural gas and in methane emissions over
25 the life of a vehicle. And in fracking, there was in

1 April -- last year in April from 2011 an article from
2 Cornell which said that fracking could be worse than coal
3 for greenhouse gas emissions. And this has been submitted
4 to staff and it has not been dealt with before.

5 There was an article in Science Magazine that
6 used the figure of 34 times versus the Board uses 25 times
7 CO2 equivalent in looking at greenhouse gas emissions for
8 natural gas for methane.

9 And methane emissions over the life of a vehicle,
10 staff, Michael Benjamin and Cody Livingston, started
11 talking with them over three years ago about this. And
12 they supplied a series of studies about buses. And there
13 was a study done in Washington, D.C. in December of '06,
14 and it uses a comparison with diesel natural gas buses and
15 uses figures of 10 and 17 grams of methane emission per
16 mile. The study that was done in February of '09 by staff
17 uses less than 400th of a gram. And it was brought to the
18 staff's attention there was a discussion with John Cordis
19 and some other folks. And it's just kind of up in the air
20 what could happen with this.

21 CHAIRPERSON NICHOLS: You can finish your
22 sentence

23 MR EDER: Pardon?

24 CHAIRPERSON NICHOLS: Finish your sentence. Your
25 time is up, but you can finish.

1 MR. EDER: This should be dealt with. There's
2 the possibility of litigation and maybe a compromise. I
3 notice you said that to the oil companies yesterday. So
4 might see what happens. Thank you.

5 CHAIRPERSON NICHOLS: Thank you. Thanks for your
6 input. I don't think there's anything to add at this
7 point.

8 So thank you, all. And you're all welcome to
9 participate in this press call, if you want to.

10 (Whereupon the Air Resources Board adjourned
11 at 11:26 a.m.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 31st day of January, 2012.

TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277