

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

CAL/EPA HEADQUARTERS
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APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John Balmes

Ms. Sandra Berg

Mr. Hector De La Torre

Mr. John Eisenhut

Supervisor John Gioia

Ms. Judy Mitchell

Mrs. Barbara Riordan

Supervisor Ron Roberts

Supervisor Phil Serna

Dr. Alexander Sherriffs

Professor Daniel Sperling

STAFF

Mr. Richard Corey, Executive Officer

Dr. Alberto Ayala, Deputy Executive Officer

Mr. Kurt Karperos, Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Ms. La Ronda Bowen, Ombudsman

Mr. Scott Bacon, Manager, Engineering and Regulation
Development Section, Monitoring and Laboratory Division

Mr. Michael Benjamin, Chief, MLD

APPEARANCES CONTINUED

STAFF

Mr. Jorn Herner, Chief, Research Planning, Administration & Emission Mitigation Branch, Research Division

Ms. Cynthia Marvin, Chief, Transportation and Toxics Division

Ms. Sydney Vergis, Staff, Sustainable Freight Section, Transportation and Toxics Division

Mr. Erik White, Chief, Mobile Source Control Division

ALSO PRESENT

Mr. Matthew Allen, Western Growers Association

Mr. Jason Barbose, Union of Concerned Scientists/CCFC

Mr. Tim Carmichael, CNGVC

Mr. Jonathan Clay, Port of San Diego

Mr. Steve Cliff, Assistant Director, Sustainability for Caltrans

Ms. Lucetta Dunn, Chair, California Transportation Commission

Mr. Sean Edgar, CleanFleets.net

Mr. Joel Ervice, Regional Asthma Management & Prevention/CCFC

Mr. T.L. Garrett, Pacific Merchant Shipping Association

Mr. Matthew Hargrove, California Business Properties Association

Mr. Henry Hogo, SCAQMD

Ms. Bonnie Holmes-Gen, American Lung Association/CCFC

Mr. James Jack, Coalition for Responsible Transportation

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Ryan Kenny, Clean Energy

Mr. Richard Lambros, Southern California Leadership Council

Ms. Alison Linder, Southern California Association of Governments

Mr. Jim Lites, California Airports Council

Mr. Bill Magavern, Coalition for Clean Air/CCFC

Mr. Adrian Martinez, Earth Justice/CCFC

Mr. Jim McKinny, California Energy Commission

Mr. Colin Murphy, NexGen Climate America

Ms. Rachael O'Brien, Agricultural Council of California

Mr. Kish Rajan, Director, Governor's Office of Business and Economic Development

Ms. Katrine Robinson, CalSTART

Mr. Tim Schott, California Association of Port Authorities

Mr. Jeffrey Serfass, California Hydrogen Business Council

Mr. Chris Shimoda, California Trucking Association

Mr. Taylor Thomas, East Yard Communities for Environmental Justice

Mr. Bob Toy, Union Pacific Railroad

Mr. Mike Tunnell, American Trucking Association

Ms. Eileen Tutt, CalETC

Mr. James Wagoner, Butte County Air Quality Management District

APPEARANCES CONTINUED

ALSO PRESENT

Ms. Kate White, Deputy Secretary, Environment and Housing,
California State Transportation agency

Ms. Morgan Wyenn, NRDC/CCFC

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1 BOARD CLERK JENSEN: Mrs. Riordan?

2 BOARD MEMBER RIORDAN: Here.

3 BOARD CLERK JENSEN: Supervisor Roberts?

4 BOARD MEMBER ROBERTS: Here.

5 BOARD CLERK JENSEN: Supervisor Serna?

6 BOARD MEMBER SERNA: Here.

7 BOARD CLERK JENSEN: Dr. Sherriffs?

8 BOARD MEMBER SHERRIFFS: Here.

9 BOARD CLERK JENSEN: Profesor Sperling?

10 BOARD MEMBER SPERLING: Here.

11 BOARD CLERK JENSEN: Chairman Nichols?

12 CHAIRPERSON NICHOLS: Here.

13 BOARD CLERK JENSEN: Madam Chairman, we have a
14 quorum.

15 CHAIRPERSON NICHOLS: Thank you very much.

16 A couple of things before we get started. It's a
17 reminder or for anyone who is new here, want to make sure
18 that you know that we request people to fill out a request
19 to speak card. It's available in the lobby or from the
20 Clerk at the beginning of or even before an item is called
21 on the agenda so that the Clerk can sort out the cards and
22 give us a list and we have a better sense of timing and
23 can plan the rest of our day accordingly.

24 Also a reminder to speakers that we impose a
25 three-minute time limit on your oral testimony, although

1 we will read any amount of written testimony that you
2 submit. So we appreciate it if when you come up to the
3 Board you get right to the point. And you don't need to
4 give us an oral version of whatever you have been writing.

5 The safety reminder here is that there are
6 emergency exits at the rear of the room. And in the event
7 of a fire alarm, we're required to evacuate the room
8 immediately and go down the stairs, not use the elevator.
9 And when the all-clear signal is given, we return to this
10 room and resume our hearing.

11 I think that's it for the beginning comments.

12 The only other thing I will add is we will be
13 taking a lunch break today. We're planning it for about
14 12:30. And because this is -- in case anybody wasn't
15 aware of it -- National Picnic Day, the Board is going to
16 actually be walking over to the Capitol Park and our
17 wonderful staff is setting up our box lunches over there.
18 So hope that people will be able to go and get a little
19 fresh air. And we'll hope that the rest of our
20 stakeholders and followers do the same.

21 So with that, I think we'll begin with the report
22 of our Ombudsman. This is the fifth annual report from
23 the Office of the Ombudsman. For that we turn to La Ronda
24 Bowen.

25 I should say, La Ronda came here -- she was

1 recruited by the ARB five years ago because of her
2 background and experience on small business and
3 environmental issues. She has a history in this area, is
4 quite well known at the national level as well as at the
5 state level for her interest in assuring that small
6 business owners are heard early in policy discussions
7 while regulations are being developed, rather than after
8 the fact. And her mission has been to more thoroughly
9 integrate thinking about an awareness of small business
10 issues into our program areas. So she has presided over a
11 period in which the Ombudsman office has been active and
12 involved in all kinds of outreach with respect to all of
13 our programs across the board.

14 And she has a team of people that work with her,
15 of course, on this that range around the state looking for
16 new economic opportunities that can also emerge from
17 regulations and to connect small businesses to them. She
18 has last year begun a new program that brings together
19 California entrepreneurs and small business owners in a
20 Small Business Advisory Panel, something that we had never
21 had before. And I've attended -- I think I was there for
22 the founding meeting of that group, and it was a little
23 bit rocky at first. I wouldn't say everybody that was
24 there felt really comfortable being inside the Air
25 Resources Board. But they very quickly realized they had

1 an audience of people who were very interested in what
2 they had to say and they have been providing us with a lot
3 of useful information. They also work with other
4 departments and local governments, always looking for ways
5 to find common grounds and new ideas that strengthen
6 California's economy, while at the same time cleaning up
7 the air.

8 So I think that's enough by way of introduction.
9 And I think, Mr. Corey, did you have a few words to
10 introduce this item?

11 EXECUTIVE OFFICER COREY: Very briefly, Chairman.

12 The Office of the Ombudsman continues to evolve
13 into an important tool for connecting ARB's goal for clean
14 air and reduce greenhouse gas emissions with the energy of
15 California's entrepreneurs and small business owners, as
16 well as organizations that touch them.

17 So today, La Ronda is going to provide a look
18 back at 2014. Take you on a brief tour of the Ombudsman's
19 office and leave you with the goals of the office for
20 2015. And with that, I turn it over to La Ronda.

21 (Whereupon the following overhead presentation
22 was given.)

23 OMBUDSMAN BOWEN: Thank you, Mr. Corey, Chairman
24 Nichols and Board members.

25 Today, I'm very happy to inform you that the Air

1 Resources Board's Ombudsman now has all three elements of
2 the small business outreach and compliance assistance
3 program envisioned by the Clean Air Act. Each of these
4 three elements, outreach and stakeholder engagement,
5 technical assistance, and a Small Business Advisory Panel,
6 as Chairman Nichols mentioned, are functioning well.

7 We are succeeding, because with Chairman Nichols
8 leading the way, you have spoken and demonstrated your
9 support for California entrepreneurs and small business
10 owners. I personally appreciate your willingness to make
11 this agency more transparent to small businesses.

12 I recall facilitating the Truck Regulations
13 Advisory Committee with Board Member Berg shortly after I
14 arrived. She set a very high standard for engagement. So
15 I've been following that.

16 Executive Officer Richard Corey has also been
17 very supportive. We meet regularly, and his guidance
18 helps me focus on ways to integrate small business into
19 all that ARB seeks to achieve.

20 --o0o--

21 OMBUDSMAN BOWEN: Today, we quickly look back at
22 the processes for creating a more proactive office and
23 pause to talk about the Small Business Opportunities
24 Advisory Panel and also the new compliance assistance
25 efforts that were the last major pieces of our program to

1 come together.

2 To end the look back, you will hear small
3 business owners who are now ambassadors for climate
4 friendly business practices.

5 Next, we'll look ahead at how the Ombudsman and
6 California small businesses support the program priorities
7 that our Executive Officer Corey outlined for you in
8 January.

9 --o0o--

10 OMBUDSMAN BOWEN: The mission of the Ombudsman is
11 to support the Board and our fellow ARB staff in achieving
12 federal and State clean air objectives. Clearly, we
13 cannot get from where we are to where we want to be
14 without fully engaging California small business owners
15 and entrepreneurs. Therefore, small business is built
16 right into our mission statement.

17 --o0o--

18 OMBUDSMAN BOWEN: Ombudsman total staffing
19 between the Sacramento and El Monte office is seven
20 full-time and eight part-time employees, plus the
21 Ombudsman. Professional staff lead work in specific
22 program areas and are deployed geographically. The map
23 colors correspond to the staff contact on your right.

24 We have a few of our staff here today. When I'm
25 talking about them, they will stand up.

1 Anthony Marin serves the northern California
2 border regions. He is our lead for incentive funding and
3 on truck and bus. Anthony also receives calls to the
4 Ombudsman hot line from Spanish-speaking customers and is
5 assisted in this by part-time staff, Natalie Hernandez.

6 Ed Wong handles southern California coastal
7 counties and the Mojave Air District. He is the lead for
8 ARB's education program and consumer products rule in the
9 Ombudsman's office.

10 Gena Latt in our El Monte office and serves
11 southern California. She is lead on developing and
12 implementing our new compliance assistance program.

13 Judy Nottoli serves the Bay Area and Sacramento
14 region and is lead for AB 32, Cool California, and our
15 one-year-old small business opportunity panel.

16 Zenia Aguilera is our liaison to Fresno and
17 supports ARB's comment log, special projects, and provides
18 administrative support. The administrative assistant for
19 Ombudsman is Jennette Bronner.

20 In addition to handling hot lines, the part-time
21 staff in Sacramento provide outreach assistance, research
22 and develop management reports under supervision, and
23 assist Ombudsman with education, environmental justice,
24 and other special projects and events.

25 --o0o--

1 OMBUDSMAN BOWEN: The first step in a successful
2 endeavor is the plan. So in 2010, we developed a business
3 plan for Ombudsman that would help us achieve all of the
4 mandates that we wanted to achieve, including the
5 environmental education initiative, which has already
6 served 2,000 classrooms. Because we knew our success
7 would depend on leveraging our resources, our business
8 strategy was three-fold: Multiply our efforts by
9 collaborating with our natural partners on common
10 objectives, make our web presence more business relevant,
11 and focus on providing support to internal staff to
12 identify and engage small businesses impacted by ARB
13 regulations and policies. That piece we're working on
14 even more now.

15 Additionally, I reconnected ARB with EPA's
16 National Steering Committee of small business programs.
17 This enables us to benefit from shared discussion of EPA
18 proposed rules and understand their impact on small
19 business, leverage national compliance tools, and promote
20 our efforts on climate. This strategy continues to
21 benefit ARB and California small business.

22 --o0o--

23 OMBUDSMAN BOWEN: The SBOAP is a major piece of
24 to complete our Small Business Compliance Program. Their
25 key role is to advise the agency on the effectiveness of

1 all aspects of our small business program and to provide
2 recommendations for strengthening it.

3 In 2013, with support from California Air
4 Pollution Control Officers Association, ARB instituted its
5 SBOAP. The independent business listed here donate their
6 time to ARB and represent most economic sectors that the
7 scoping plan touches. They are our resources. They're
8 free to us.

9 With this panel, we sought geographic and
10 industry diversity. And leadership is Richard McCaskill,
11 a small business owner and former marine from San Diego.
12 He is the Small Business Co-Chair. Larry Greene, Air
13 Pollution Control Officer for Sacramento Air District is
14 the CAPCOA Co-Chair. And I serve as the ARB Co-Chair.

15 The panel will focus on helping ARB with economic
16 analysis and outreach, as well as implementing the new
17 programs that we'll discuss later. They meet quarterly,
18 rotating between northern and southern California. And
19 members that can't attend can attend via Go-To-Meeting.
20 They are expected to be an expected resource so we can use
21 them any time.

22 --o0o--

23 OMBUDSMAN BOWEN: The next thing that we
24 implemented was compliance assistance. It has always
25 occurred at ARB through hotlines and training courses.

1 But to create a Small Business Assistance Program, we
2 needed these efforts to augmented with strong in-the-field
3 compliance assistance. We focused on the refrigeration
4 management program and dry cleaning. Our efforts were
5 concentrated in the South Coast region. This was all in
6 2014.

7 For both programs, Ombudsman took ARB staff into
8 business establishments to experience rule compliance from
9 the implementation end as seen by small businesses.
10 Everyone thought this was a really worthwhile endeavor.

11 Refrigerant management rule requires inspection
12 and reporting of leaks and leak repair and a recording of
13 that to the ARB. Because the El Monte office is located
14 in an area where a substantial number of business do not
15 speak English as a first language, we use the opportunity
16 to reach out to small market chains that focus on ethnic
17 foods. This strategy is proving effective in helping to
18 get the word out to these small businesses: One, that
19 there is a rule; that it applies to them; and that a leaky
20 refrigerant system is actually money blowing away.
21 Business didn't understand how to report or how to find
22 relevant information on their equipment. And the
23 refrigerant repairmen are one-man operations that don't
24 offer reporting services. So ombudsman staff demonstrated
25 how to find the leaks, what to do when equipment tags were

1 missing or identification information was missing and how
2 to put the data into the ARB reporting system.

3 We also did an outreach program and compliance
4 assistance for dry cleaners with Air Resources Board,
5 South Coast Air Quality, and L.A. Department of Water and
6 Power. Each had grant programs designed to encourage dry
7 cleaners to change from PERC into alternative cleaning.
8 None of the grant programs was succeeding in getting dry
9 cleaners interested.

10 Ombudsman staff lead the dry cleaning
11 associations and funders in holding the dry cleaning
12 workshops to demonstrate the benefits of the new equipment
13 and available funding. They followed up with the
14 demonstration workshop where a dry cleaner business owner
15 was the presenter and he demonstrated for his peers how
16 wet cleaning could be an effective dry cleaning tool.
17 Afterward, a few of the dry cleaners expressed interest in
18 the program.

19 Ombudsman and communication staff are creating
20 video training tools for the dry cleaners. Through this
21 effort, we were able to bring two ARB programs together.

22 --o0o--

23 OMBUDSMAN BOWEN: We recognize that small
24 businesses are challenged to keep up with their business
25 operations and new rules. Experiences gained in the field

1 will be incorporated into future rulemaking. The field
2 compliance assistance and feedback program that staff
3 completed last was the last part of a fully functioning
4 three-part program. So these are just the numbers of
5 where we were. So next --

6 --o0o--

7 OMBUDSMAN BOWEN: -- we look at hotline call
8 data. The Ombudsman El Monte hotline is the second
9 busiest after 866-Diesel. And although call volume is
10 down this year, the line receives over 200 calls a day and
11 significantly more when rule deadlines are near.

12 In 2014, most callers sought information on
13 aftermarket parts, catalytic converters, and diesel
14 issues. Spanish language calls increased from about 1300
15 in 2013 to 2400 in 2014. And the same effect was felt in
16 Sacramento mainly related to diesel issues.

17 El Monte hotline staff provided callers with help
18 navigating ARB's website. They answer questions from
19 consumers and smog technicians on aftermarket parts,
20 questions on vehicle registration for out-of-state
21 vehicles, et cetera.

22 The Department of Motor Vehicles also refers
23 callers to ARB, especially for clarification of
24 registration issues. And this is the default number on
25 many ARB websites. By taking some of these calls, the

1 Ombudsman team relieves pressure on the program staff.

2 --o0o--

3 OMBUDSMAN BOWEN: As we reach out the serve
4 California small business owners and others, we are not
5 surprised to learn they are appreciative. Many have
6 become advocates of clean air and fewer carbon emissions.
7 We are going to take short video clip and let you meet a
8 few.

9 (Whereupon a video presentation was made.)

10 OMBUDSMAN BOWEN: What a nice way to end our look
11 back. From here, we are looking ahead.

12 --o0o--

13 OMBUDSMAN BOWEN: The next few slides identify
14 some of the ways that Ombudsman intends to use the
15 strengths of the program we now have in place to engage
16 small businesses in planning and implementing some of the
17 key priorities Mr. Corey outlined for the Air Resources
18 Board.

19 For small businesses, the four most critical
20 issues are likely to be: Climate planning, heavy-duty
21 vehicles, climate investments and sustainable communities,
22 and the new health risk assessment guidelines.

23 --o0o--

24 OMBUDSMAN BOWEN: Ombudsman has already begun
25 working with program staff on short-lived climate

1 pollutant planning through the work on the refrigeration
2 systems at grocery stores, and we will continue to work in
3 this area.

4 SBOAP members are engaged in converting food
5 waste to biofuel and others make their livelihood in the
6 forests of northern California and the orchards of the San
7 Joaquin Valley. Their knowledge will be helpful as ARB
8 seeks to develop protocols involving methane, forestry,
9 and agriculture.

10 --o0o--

11 OMBUDSMAN BOWEN: Because Ombudsman regularly
12 engages stakeholders outside of ARB, we learn of
13 opportunities where greenhouse gas emissions are taking
14 place which does ARB does not track or take credit for.
15 Yet, these are important to understand in our climate
16 planning. Many small businesses are going green on their
17 own, as you saw from the video clip. The green business
18 network is a nonprofit organization that certifies
19 business who are in compliance with regulations and going
20 beyond in order to be green.

21 Emission reductions are real, and the steps
22 taken, such as installing low flow toilets and reducing
23 energy consumption, et cetera, are verified by a third
24 party, such as a utility company, inspector, or agency
25 representative.

1 --o0o--

2 OMBUDSMAN BOWEN: SBOAP, local air districts, and
3 the ARB are challenged to help the public understand the
4 new OEHHA risk assessment guidelines. Although toxic
5 emissions have been greatly reduced by businesses, the new
6 risk guidelines make it appear as though risks have
7 increased to the public. CAPCOA's communication
8 guidelines will help businesses and others better
9 understand how to communicate this message. SBOAP is a
10 good sounding board for staff developing and reviewing
11 these types of sensitive messages. More small businesses
12 may have to notify residents that exactly the same
13 chemicals, used in exactly the same quantities, now pose
14 higher health risks. What's really changed is not the
15 amount of the emissions so much as our perception of how
16 they effect our health.

17 --o0o--

18 OMBUDSMAN BOWEN: These are only preliminary --
19 on sustainable freight, the SBOAP can be helpful because
20 they can talk to us about and share with us information on
21 how the freight system impacts them. How do they use that
22 freight system. That's not something that's automatically
23 known with the regulatory agencies.

24 We can also engage focus group type sessions with
25 local economic development, I-hubs and other stakeholders

1 that would be non-traditional. That's a way that we have
2 of leveraging our relationships to get more input to the
3 Air Resources Board.

4 Next slide.

5 --o0o--

6 OMBUDSMAN BOWEN: We can seek the support of the
7 Small Business Opportunities Panel to test the new
8 ultra-low NOx vehicles in real world applications. It can
9 also provide us a lot of feedback on how our programs are
10 working in that area.

11 We will continue collaborative work and develop
12 better models for small businesses fleets to access
13 capital. This is the most important thing from the
14 Ombudsman point of view, trying to figure out this
15 capital, getting the small fleets to be able to transfer
16 to lower NOx vehicles. And we will continue to access our
17 relationships to help prepare fleet owners for the
18 transition. The Ombudsman can also help staff identify
19 economic impacts.

20 --o0o--

21 OMBUDSMAN BOWEN: Historically, on climate
22 investments, the Ombudsman has not been heavily involved.
23 We have encouraged small business to connect with their
24 local metropolitan planning agencies to learn how
25 investment planning works in their region so they can

1 familiarize themselves.

2 We also use the Ombudsman list serve to
3 re-broadcast notices of workshops and meetings by putting
4 a small business focused headline and a little transmittal
5 message into that message before we re-broadcast it.

6 Most recently, we have connected project
7 proponents with program staff for inclusion in upcoming
8 workshops. We've also helped with individual project
9 concept submissions to ARB staff.

10 These are only preliminary efforts. I anticipate
11 developing a plan for Ombudsman engagement in this area
12 working with internal staff and external stakeholders
13 later this year. It would include engagement of small
14 businesses, small communities and schools, I imagine.
15 These are all identified in AB 32, along with
16 disadvantaged communities as important constituencies.

17 --o0o--

18 OMBUDSMAN BOWEN: The area of cap and trade and
19 programs that we want to track, like fuels, SBOAP can help
20 us look back at how they're working. This would inform
21 future decision making. We should seek ways to tap the
22 entrepreneurial thinking and business knowledge of SBOAP.
23 They may be able to help think through protocols for
24 natural and working lands, including forests. They're
25 unlikely to develop them, but they would be good

1 resources. Many small business consulting firms are doing
2 the greenhouse gas reporting work and they may also be
3 able to provide ARB valuable insight as we look back at
4 what we're doing.

5 --o0o--

6 OMBUDSMAN BOWEN: Connecting perhaps the greatest
7 resource the Ombudsman brings to ARB's program priorities
8 and discussions are the connections and relationships we
9 have developed over the past five years. This slide is a
10 sample of organizations we can count on to provide
11 resources for outreach, compliance assistance, policy
12 development, convening, research, and many other services
13 that the Ombudsman needs to do our work for the people of
14 the state of California and this Board. Through this
15 network of unconventional stakeholders, we can help inform
16 policy and identify knowledge gaps and obstacles to our
17 success.

18 --o0o--

19 OMBUDSMAN BOWEN: So finally, we are building on
20 the achievements we've made over the past five years.
21 Small business owners and entrepreneurs we know will ask
22 questions that if we consider at the front end of our
23 process may lead to outcomes different than what we as
24 regulators would imagine. This is a key reason we want to
25 involve them early in our processes.

1 This concludes my presentation. I will be happy
2 to answer any questions.

3 CHAIRPERSON NICHOLS: Thanks, La Ronda.

4 We don't have any witnesses who have signed up to
5 testify on this item, but I think the Board members may
6 want to ask a few questions or comments.

7 I would just say that clearly the level of
8 activity and the level of interest in our work with
9 respect to small businesses has increased rapidly under
10 your tenure. You create a lot of extra workload for
11 yourself and the rest of us, but in a very positive way.

12 The important point here being -- I'm joking a
13 little bit. But the important point here is as our
14 mission and mandate reach out ever more into communities,
15 it's extremely important that we have the best kinds of
16 tools for getting and giving information about what we do.
17 And obviously, this goes well beyond the Ombudsman's
18 office. But because of her focus on small business and
19 her expertise in programs and ways of working with small
20 businesses, La Ronda has been able to make that a hallmark
21 of her office's work. And I think you can see that
22 they've got a lot of different irons in the fire. And I
23 know many of you have used them as a resource in the past.
24 And they've been able to contact you and take advantage of
25 your willingness also to pitch in.

1 But at this point, I'd like to add any comments
2 or questions.

3 Mrs. Riordan.

4 BOARD MEMBER RIORDAN: Madam Chairman, having
5 been at the El Monte office on several occasions and
6 talking to people who take our calls for information, that
7 is so important for people to have a human at the end of
8 that phone who can direct them or give them the correct
9 information.

10 And I just want to say thank you to your staff
11 for that outreach because I think it's so critical for the
12 success of anything that we do here in setting our
13 policies and our requirements. People need to understand.
14 They need to be in some cases given that extra attention
15 so they can succeed. And I just really appreciate that
16 very much, the outreach that you do.

17 CHAIRPERSON NICHOLS: Thank you.

18 Yes?

19 BOARD MEMBER GIOIA: I want to thank you for your
20 work. It's really important to focus here in this area.
21 I just want to personally thank you for your work.

22 CHAIRPERSON NICHOLS: Ms. Berg.

23 BOARD MEMBER BERG: I do want to echo
24 congratulations. When we started five years ago, the
25 Ombudsman's office was not as proactive as we needed it to

1 be, and we are taking on some huge issues. And we all
2 know that small business is one of the backbones of our
3 success here economically. And regulation does have an
4 effect. And you've been able to create, you and your
5 staff and your outreach -- and congratulations to you guys
6 as well -- have really been able to reach out, solve
7 problems, agree to disagree because we don't always agree.
8 But you've given a voice. I really appreciate that.

9 I've personally used the Ombudsman's office for
10 my business. I appreciate that.

11 And congratulations. This report five years
12 later is very impressive. A lot of great work. Thanks a
13 lot.

14 CHAIRPERSON NICHOLS: Anybody else?

15 Ms. Mitchell.

16 BOARD MEMBER MITCHELL: I also want to thank La
17 Ronda for all of work she's done. You can see she's done
18 quite a lot of work in the South Coast district. It's
19 really good to have a personal face and a voice to help
20 our community with the regulations. And you have been
21 very instrumental in that regard. I want to thank you
22 personally for all your work. Thank you.

23 BOARD MEMBER SERNA: Thank you, Madam Chair.

24 I'll add to the thanks that's been directed your
25 way as well, La Ronda, and to your staff.

1 I particularly want to thank you for pointing out
2 the fact that your staff are multi-lingual. This is
3 something that I mentioned in the past on several
4 occasions. I think it's very important that we have the
5 ability to certainly help educate small business, but to
6 do so in a language that is common to them.

7 And I also wanted to ask -- I noted one slide
8 referenced business improvement districts. And here in
9 Sacramento, we have several property-based business
10 improvement districts. What has your experience been with
11 specifically working with the business improvement
12 districts across California? Do you find them to be kind
13 of a very appropriate central clearinghouse to kind of get
14 the message across in a full room, so to speak?

15 OMBUDSMAN BOWEN: First, thank you to the Board
16 members. Thank you. Thank you. That's very
17 heartwarming.

18 We haven't worked with all the business
19 improvement districts. We have worked with many of them.
20 Our experience is like anything else it depends on who
21 you're working with. But in general, I think they are a
22 good resource. And I think that I know that one of our
23 tasks -- we develop a new business plan. One of our tasks
24 is to focus on strengthening the business improvement
25 districts. Working with them more so they can be more

1 effective in this small really working with small
2 businesses on ARB kinds of issues. So I hope that answers
3 your question.

4 BOARD MEMBER SERNA: It does. I appreciate that.
5 Thank you.

6 CHAIRPERSON NICHOLS: Okay. I just want to add
7 I thought the little video -- excuse me. You were being
8 quiet there. Supervisor Roberts.

9 BOARD MEMBER ROBERTS: If I could make a quick
10 comment. A couple weeks ago, La Ronda came to San Diego
11 because we had heard testimony a couple meetings ago from
12 a woman who her and her husband have started a refinery.
13 I didn't know we had a refinery in San Diego. What
14 they're doing collecting all of the restaurant --

15 CHAIRPERSON NICHOLS: Waste oil.

16 BOARD MEMBER ROBERTS: They created an incredible
17 business out of this. They're even shipping product to
18 Arizona. It's happening just a couple miles from my
19 office, and I didn't know about it.

20 But it was nice to have this visit. And I told
21 her I'm interested. She said, let's go see what they're
22 doing. It was -- I was really impressed. I was also
23 impressed that if it didn't work out, it looked like the
24 equipment they were using could be changed into a craft
25 brewery without a lot of efforts. They could have an easy

1 backup plan to all of this. But I appreciate her doing
2 that.

3 Last year, she was able to come down and be
4 present one of our business awards to a hotel in San
5 Diego, a couple that had done incredible things. I think
6 these are positive things that where the public
7 understands better what we're trying to do. And sees they
8 have a role in it, too. And we all want a cleaner,
9 healthier environment. By us singling these out, it
10 helps. But for her to put energy into doing these things,
11 which some people would think these are minor awards, I
12 think it's really important.

13 CHAIRPERSON NICHOLS: Well, that actually --
14 yes, go ahead.

15 BOARD MEMBER SHERRIFFS: Thank you. And thank
16 you to your office for all that you do for small
17 businesses because I think it is so important. Small
18 businesses are so important. The regulatory maze, the
19 policy maze is so important they have a single portal they
20 can identify and that is really becoming known as a place
21 for a culture of problem solving. Having local points of
22 contact is so important. It's so important to be engaging
23 all of these businesses throughout the state and things
24 like Cool California where people, business want to do
25 these kinds of things, but may not understand where or how

1 it can benefit them. So it's really a wonderful
2 undertaking and would encourage you to be sure to call on
3 each of us to help wherever you see we can. Thank you.

4 CHAIRPERSON NICHOLS: You'll find a follow up
5 very quickly. I'm sure. I was over eager, but I wanted
6 to jump in when Ron was talking about the experience of
7 visiting with one of the small businesses in his area.
8 Because I thought that the video was particularly
9 effective in showing the range and diversity and the sheer
10 enthusiasm of the people that were receiving those awards,
11 which are just a piece of stone I guess or glass --

12 OMBUDSMAN BOWEN: Recycled glass.

13 CHAIRPERSON NICHOLS: Of course. But it's
14 something that actually does make a difference in people's
15 overall attitude about the program. And while it in no
16 way is a compensation for all that they put into earning
17 those awards, it does show that the Air Resources Board
18 recognizes and cares about what they're doing. So I think
19 that's been a real process of building, getting more and
20 more applicants in, and a broader range of applicants.
21 And it was really great to see the diversity as well as
22 the enthusiasm of those award ease.

23 So I think with that, thank you very much. And
24 we will expect an even bigger and better report next year.

25 Our next item is a regulatory item. It's

1 consideration of adoption of amendments to the
2 certification and test procedures for vapor recovery
3 equipment that's used at gasoline dispensing facilities in
4 California.

5 Our vapor recovery requirements have been in
6 place for 40 years now. And the Board has from time to
7 time amended these regulations to make them more effective
8 and more cost effective and to improve and clarify the
9 existing certification and test procedures. So this is
10 the latest iteration. And we now have the team it looks
11 like in place that will be presenting this.

12 Mr. Corey, would you please introduce this item?

13 EXECUTIVE OFFICER COREY: Yes, thank you,
14 Chairman.

15 As stated, vapor recovery program is 40 years
16 old. And over that period, the Board has adopted and
17 periodically amended regulations to control hydrocarbon
18 emissions associated with the storage and transfer of
19 gasoline. These regulations apply to each step of the
20 complex gasoline distribution network, including
21 terminals, bulk storage facilities, cargo tanks, and
22 approximately 20,000 gasoline dispensing facilities
23 throughout California.

24 Over that time, the Board has adopted
25 certification procedures that establish standards for

1 equipment and various test procedures that are used to
2 certify systems and the verify compliance with those
3 standards. Today's regulatory proposal includes three
4 elements. These goals are to improve the cost
5 effectiveness and clarity of the existing vapor recovery
6 program while encouraging introduction of innovative new
7 controls.

8 First, we'll hear amendments designed to reduce
9 compliance costs for owners of above-ground storage tanks
10 while retaining emission reductions in the region with the
11 most needed.

12 Next, staff will propose performance standards
13 for a new vapor recover nozzle that has potential to more
14 cost effectively control non-retail gas station emissions
15 as California transitions to vehicle-based control
16 systems.

17 Finally, staff is proposing clarification of
18 documentation requested from vapor recovery control
19 manufacturers as part of the certification process.

20 Now I'd like to ask Scott Bacon of the Monitoring
21 and Laboratory Division to begin the staff presentation.
22 Scott.

23 (Thereupon an overhead presentation was
24 presented as follows.)

25 ENGINEERING AND REGULATION DEVELOPMENT SECTION

1 MANAGER BACON: Thank you, Mr. Corey.

2 Good morning, Chairman Nichols and members of the
3 Board. And thank you for the opportunity to discuss our
4 proposed amendments to the certification and test
5 procedures for the gasoline vapor recovery program.

6 --o0o--

7 ENGINEERING AND REGULATION DEVELOPMENT SECTION

8 MANAGER BACON: Today's presentation consists of five
9 sections. We will start with a brief history of the
10 program, followed by a description of today's proposed to
11 amend requirements for above-ground tanks.

12 Section three will cover proposed standards for
13 enhanced conventional, or eco nozzles.

14 Section four is a summary of proposed
15 administrative amendments to certification procedures.

16 And we will end the presentation with staff's
17 conclusions and recommendation.

18 With that said, let's begin with the brief
19 history of the vapor recovery program.

20 --o0o--

21 ENGINEERING AND REGULATION DEVELOPMENT SECTION

22 MANAGER BACON: Each year in California, approximately 15
23 billion gallons of gasoline travels through a complex
24 distribution network, beginning with bulk storage
25 facilities, transferred to fleets of cargo tank trucks.

1 From there, it moves to approximately -- one of
2 approximately 20,000 fueling facilities and ultimately
3 onto one of more than 20 million vehicle fuel tanks. To
4 protect air quality and public health, the Board has
5 adopted regulations that control emissions during fuel
6 storage and transfer at each step in this process.

7 --o0o--

8 ENGINEERING AND REGULATION DEVELOPMENT SECTION
9 MANAGER BACON: There are three key reasons to control the
10 release of gasoline vapor.

11 First, gasoline vapors interact with oxides of
12 nitrogen and sunlight to form ground level ozone.
13 Controlling the release of gasoline vapors during retail
14 fueling operations is a key element of California's State
15 Implementation Plan for attaining ozone air quality
16 standards. This is especially important in certain
17 regions of the state, such as the South Coast Air Quality
18 Management District.

19 In addition to ozone air quality, the Board is
20 also tasked with reducing the near-source risk of exposure
21 to airborne toxics. Gasoline vapors contain Benzene,
22 which is a known carcinogen and has been identified by the
23 Board as a toxic air contaminant. Controlling vapors from
24 gasoline marketing operation helps to reduce benzene
25 exposure for all Californians.

1 The Board first adopted rules to control gasoline
2 vapor emissions from marketing operations in 1975 and has
3 updated those rules periodically over the subsequent years
4 to further reduce emissions.

5 Staff continues to look for opportunities to
6 improve the program, which leads us to today's proposed
7 amendments.

8 --o0o--

9 ENGINEERING AND REGULATION DEVELOPMENT SECTION
10 MANAGER BACON: At this point, I would like to discuss the
11 proposal that is being presented for the Board's
12 consideration, starting with staff's proposed amendments
13 to vapor recovery requirements for above-ground storage
14 tanks.

15 --o0o--

16 ENGINEERING AND REGULATION DEVELOPMENT SECTION
17 MANAGER BACON: In June of 2007, the Board approved
18 enhanced vapor recovery, or EVR, for gasoline above-ground
19 storage tanks. Staff estimated that there are about 9,000
20 above-ground tanks, or AST, storing gasoline in
21 California.

22 Unlike underground tanks, which are usually used
23 for retail fueling operations, above-ground tanks are most
24 often used for smaller non-retail applications, such as
25 fueling corporate or government vehicle fleets. They are

1 also commonly found in agricultural operations, which
2 generally are not subject to vapor recovery requirements
3 by local air districts.

4 Staff estimates that about 4,000 of California's
5 above-ground tanks are subject to vapor recovery
6 requirements. Although there is a large statewide
7 population of above-ground tanks, they typically dispense
8 much less gasoline than the underground tanks found at
9 average neighborhood gas stations.

10 Whereas, the typical retail station with
11 underground tanks dispenses about one and a half million
12 gallons of gas each year, facilities with above-ground
13 tanks typically dispense less than 10,000 gallons
14 annually. This photo taken at a local police department
15 shows a typical above-ground tank configuration with a
16 single dispenser attached directly to the above-ground
17 tank that is used to refuel the department's parole
18 vehicles. This is probably one of the most common layouts
19 for an above-ground tank, but their size, lay out, and
20 usage patterns can vary widely.

21 --o0o--

22 ENGINEERING AND REGULATION DEVELOPMENT SECTION
23 MANAGER BACON: This drawing shows the various vapor
24 recovery controls that are required for an above-ground
25 tank in California as a result of ARB's 2007 regulation.

1 At the left of the drawing, you can see the Phase I system
2 shown in blue. This system controls emissions during
3 transfer of fuel from the cargo truck to the above-ground
4 tanks. As gasoline is transferred into the above-ground
5 tank, vapors are returned from the tank to the cargo
6 truck, which then returns them to the bulk terminal where
7 they are condensed and processed into liquid gasoline. In
8 the center of the drawing is an above-ground tank equipped
9 with standing loss control, shown in brown. Standing loss
10 control is designed to minimize emissions while fuel is
11 stored in the tank. Since above ground tanks are often
12 exposed to sunlight, they tend to heat up during the day.
13 That heat is transferred to the fuel, which causes the
14 fuel to evaporate and vent to atmosphere. Standing loss
15 control minimizes this.

16 For new facilities, an insulated tank and
17 pressure vacuum vent valve installed on the tank stack
18 reduces emissions by about 90 percent. For existing
19 facilities, a reflective coating on the exterior of the
20 tank and a PV valve reduces emissions by about 60 percent.

21 At the right side of the drawing, you can see
22 Phase 2 controls, which are shown in purple. Phase 2
23 systems include a vapor recovery nozzle and a coaxial hose
24 that controls emissions during vehicle fueling by
25 collecting vapors from the vehicle fuel tank and returning

1 them to the above-ground tank.

2 --o0o--

3 ENGINEERING AND REGULATION DEVELOPMENT SECTION

4 MANAGER BACON: ARB's 2000 regulation for above-ground
5 tanks is being phased in over time. Starting with
6 standing loss control and is followed by Phase I and Phase
7 II EVR systems respectively. You notice that standing
8 loss controls provide the bulk of emissions reductions
9 that are expected to be achieved by the AST regulation,
10 with relatively small reductions expected from Phase I EVR
11 and Phase 2 EVR.

12 As specified by state law, new gasoline
13 installations must install vapor recovery controls once a
14 certified product is available in the market. Existing
15 stations are then allowed four years to install the same
16 controls. This recognizes that it's typically more
17 expensive to retrofit facilities.

18 For example, as shown in this table, new
19 above-ground tanks in California were required to install
20 standing loss control starting in April 1st, 2009, while
21 existing installations didn't need to upgrade until April
22 1st, 2013. Standing loss control upgrades were completed
23 about two years ago while the Phase I EVR upgrade deadline
24 passed last July. Phase II upgrades will not need to be
25 completed until 2019.

1 overall cost effectiveness.

2 --o0o--

3 ENGINEERING AND REGULATION DEVELOPMENT SECTION
4 MANAGER BACON: By late 2013, ARB staff and CAPCOA had
5 committed to jointly developing a proposed amendment to
6 AST Phase I EVR requirements. At the time this decision
7 was reached, the Phase I EVR upgrade deadline of July 2014
8 was less than a year away.

9 Rulemaking, as you know, is a lengthy process and
10 it was decided that more immediate action was needed to
11 provide near-term implementation guidance for AST owners.

12 On February 28, 2014, ARB issued a regulatory
13 advisory intended to avoid unnecessary expenses of Phase I
14 EVR upgrades on tanks that we expected would not
15 ultimately be subject to the July 2014 upgrade deadline.

16 The advisory publicly stated that staff intended
17 to propose regulatory amendments for the Board's
18 consideration and all above-ground tank owners would
19 ultimately need to comply with whatever requirements were
20 approved by the Board.

21 Today's proposal fulfills that commitment and
22 closely aligns with the terms that were laid out in that
23 AST advisory.

24 --o0o--

25 ENGINEERING AND REGULATION DEVELOPMENT SECTION

1 MANAGER BACON: Staff has chosen not to propose amendments
2 to standing loss control, or SLC. SLC provides
3 significant reductions. In addition, the deadline to
4 install SLC has passed, and eliminating or amending those
5 requirements at this point would essentially reward any
6 above-ground tank owners who have chosen not to comply.

7 Staff's 2013 review of the AST EVR requirements
8 found that SLC controls are highly cost effective. In
9 fact, we estimate that in many cases the cost of
10 installing an SLC system is offset by the value of fuel
11 saved by that system in the following few years. Many
12 tank owners will see a positive return on their investment
13 of an SLC system over time.

14 Most air districts do not require controls on
15 certain AST within their jurisdictions, such as tanks used
16 on farms or non-retail tanks installed prior to a certain
17 date.

18 While standing loss control would not be required
19 for those above-ground tanks per district rule, ARB staff
20 has developed an informational flyer to inform owners of
21 the potential financial benefits of voluntarily installing
22 standing loss controls. We hope that this effort will
23 result in additional emission reductions from the
24 voluntary use of standing loss controls.

25 --o0o--

ENGINEERING AND REGULATION DEVELOPMENT SECTION

1
2 MANAGER BACON: Staff is proposing that certain
3 above-ground tanks be exempted from the current
4 requirement to upgrade their pre-EVR Phase I system to an
5 EVR system by July 1st of 2014.

6 Exemptions from the upgrade deadline would be
7 based on federal ozone attainment status and federal ozone
8 non-attainment classification, which is an indicator of
9 the severity of a region's ozone non-attainment. The
10 proposal also takes into consideration the throughput of
11 the above-ground tank with Phase I EVR required on tanks
12 above specified throughput levels.

13 Finally, the requirements will vary based on the
14 population density of the district in which the tank is
15 located. Staff collected AST population and throughput
16 data from all air districts that are not in attainment
17 with the federal ozone standard. We then analyzed the
18 cost and emission impacts of requiring Phase I EVR
19 upgrades based on various throughput levels, ozone
20 non-attainment classifications, and population densities.

21 In concert with CAPCOA, we settled on a set of
22 criteria that significantly improves cost effectiveness,
23 while closely aligning with the air quality needs of the
24 various districts.

25 --o0o--

1 ENGINEERING AND REGULATION DEVELOPMENT SECTION
2 MANAGER BACON: This map provides a graphical summary of
3 staff's proposal to allow certain above-ground tanks to
4 continue using their existing pre-EVR Phase I systems
5 beyond the current July 1, 2014, upgrade deadline of the
6 required.

7 Let's start by looking at the red area, which
8 includes the South Coast Air District. This area has the
9 greatest need for additional emission reductions so no
10 relaxation at the 2007 rule is proposed. All pre-EVR
11 systems in the red areas must be upgraded to ERV by July
12 1st of 2014, regardless of the above-ground tank
13 throughput.

14 Moving onto the orange-shaded areas, after
15 assessing the non-attainment classification and population
16 density, staff determined that further emission reductions
17 are needed in these areas.

18 Some relief from the July 2014 upgrade deadline
19 is proposed, but it is limited to only above-ground tanks
20 with throughputs of less than 18,000 gallons per year.
21 All above-ground tanks in the orange areas with annual
22 throughput of over 18,000 gallons must still install a
23 Phase I EVR system by July of 2014.

24 The yellow shaded areas are less densely
25 populated areas and have less severe ozone non-attainment

1 classification than the orange areas, so staff is
2 proposing greater relief from the July 2014 upgrade
3 deadline in the yellow areas. All above-ground tanks in
4 these areas with an annual throughput of below 60,000
5 gallons per year can continue operating with their current
6 pre-ERV system.

7 Finally, we come to the green shaded areas which
8 are in attainment with the federal ambient ozone standard.
9 There is little benefit in seeking additional emission
10 reductions in these areas. So staff proposes all
11 above-ground tanks located in these areas may continue
12 using their existing pre-ERV systems.

13 --o0o--

14 ENGINEERING AND REGULATION DEVELOPMENT SECTION
15 MANAGER BACON: The proposal includes a requirement that
16 all existing pre-ERV Phase 1 equipment whose use is
17 permitted beyond July 1 of 2014 by must be replaced by a
18 compatible ERV component at the end of its useful life.
19 Through this mechanism, the number of remaining pre-ERV
20 systems will decrease over time as ERV replacement
21 components are installed.

22 Eventually, all tanks with pre-ERV systems will
23 migrate towards ERV systems. For the purposes of
24 estimating cost savings and emissions impacts of this
25 proposal, staff assumed that Phase I pre-ERV components

1 have a useful life of five years. The actual useful life
2 will vary and could be greater or less than staff's
3 five-year assumption.

4 To implement the replacement component
5 requirement, staff has issued an advisory which lists EVR
6 components that are compatible with pre-ERV systems. We
7 will keep that list updated as new EVR components become
8 available.

9 --o0o--

10 ENGINEERING AND REGULATION DEVELOPMENT SECTION
11 MANAGER BACON: This slide shows staff estimates of the
12 controls that would be achieved by AST Phase I systems
13 under the 2007 rule and today's proposal. The 2007 rule
14 is shown in blue -- on the upper pink line, and today's
15 proposal is on the lower line in blue. The difference
16 between these two line is the potential emission
17 reductions that would be foregone by this proposal as
18 compared to the 2007 rule.

19 You will notice that the lines begin to converge
20 after July 1 of 2014 as pre-ERV systems are replaced
21 through natural turnover. Based on staff's estimated
22 five-year life for pre-EVR systems, the lines converge in
23 July of 2019, at which point all above-tanks will be
24 fitted with Phase I EVR systems as required under the 2007
25 rule.

1 Staff estimates under today's proposal the relief
2 provided to tank owners would result in approximately 16
3 tons of reactive organic gas emission over a five-year
4 period, as compared to what was expected under the
5 original rule.

6 --o0o--

7 CHAIRPERSON NICHOLS: That's statewide?

8 ENGINEERING AND REGULATION DEVELOPMENT SECTION
9 MANAGER BACON: Statewide, 16 tons in five years.

10 CHAIRPERSON NICHOLS: Thanks.

11 ENGINEERING AND REGULATION DEVELOPMENT SECTION
12 MANAGER BACON: Based on staff's analysis of AST
13 population and throughput data provided by districts, we
14 expect about 2100 above-ground tanks will be allowed to
15 continue operating with their current pre-EVR systems.

16 Owners of these tanks will still need to install
17 ERV components over time as their pre-EVR systems wear
18 out, but they will experience a net savings from this
19 proposal through two primary mechanisms.

20 First, affected owners will be able to realize
21 the full value of the money that they have already spent
22 on their current pre-ERV equipment.

23 Second, these owners experience a financial
24 benefit by delaying the expense of purchasing and
25 installing Phase I EVR equipment. Simply put, there is a

1 net value in being able to buy and install ERV system at a
2 later date.

3 Staff estimates that the total savings of the
4 proposed AST amendment would be about \$3.6 million
5 statewide, or about \$1700 dollars per affected tank on
6 average. Of course, that savings would not be spread
7 evenly over all affected tanks. For example, the owner of
8 an above-ground tank whose pre-EVR system was aging and
9 needed to be replaced in August of 2014 would realize very
10 little benefit from this proposal.

11 On the other extreme, consider the owner who
12 installed a new pre-EVR system just prior to the July 2014
13 upgrade deadline. That owner would be able to continue
14 using that system for many years and would experience an
15 effective savings of greater than \$1700.

16 --o0o--

17 ENGINEERING AND REGULATION DEVELOPMENT SECTION
18 MANAGER BACON: In summary, the proposed amendments to AST
19 Phase I ERV requirements will respond to CAPCOA's concerns
20 and improve the 2007 rule. The proposal would provide
21 significant financial relief for about 57 percent of
22 California's permitted above-ground tanks. Because higher
23 throughput tanks are still required to install ERV by the
24 July 2014 deadline, the proposal will achieve 91 percent
25 of the emission reductions that would be achieved under

1 full implementation of the current Phase I ERV rule. The
2 remaining nine percent of reductions would be achieved
3 over time as aging pre-ERV systems are replaced with ERV
4 systems.

5 The proposal also retains 100 percent of
6 emissions benefits in the South Coast district where they
7 are most urgently needed.

8 The Board generally considers the cost
9 effectiveness of a rule in terms of dollars spent per
10 pound of emissions reduced. This proposal is different
11 because it is actually allowing for a small amount of
12 emission reductions to be foregone over the coming years,
13 resulting in increased emissions as compared to full
14 implementation of the 2007 rule. Staff estimates that the
15 proposed amendments would save approximately \$106 for
16 every pound of emission reduction foregone as compared to
17 full implementation of the 2007 rule.

18 --o0o--

19 ENGINEERING AND REGULATION DEVELOPMENT SECTION
20 MANAGER BACON: Staff is not proposing to amend Phase 2
21 ERV requirements for above-ground tanks at this time, but
22 we intend to return to the Board when sufficient cost data
23 are available, most likely in the 2017 or 2018 time frame.

24 As with Phase I, Phase II ERV systems may prove
25 to be cost effective on high are throughput tanks, but

1 will certainly not be cost effective for lower throughput
2 tanks.

3 At this point, the cost of a Phase II ERV system
4 is unclear, so it would be impossible to determine exactly
5 which AST would be upgraded to Phase II ERV in a cost
6 effective manner. The deadline to upgrade existing AST
7 with Phase II EVR is March 13, 2019.

8 Staff recommends that the Board amend Phase II
9 ERV requirements prior to that date. The methodology used
10 to develop today's proposed amendments to Phase I
11 requirements should serve as a good model for future Phase
12 II amendments.

13 --o0o--

14 ENGINEERING AND REGULATION DEVELOPMENT SECTION
15 MANAGER BACON: At this point, I'd like to move on and
16 discuss staff's proposed for enhanced conventional
17 nozzles.

18 --o0o--

19 ENGINEERING AND REGULATION DEVELOPMENT SECTION
20 MANAGER BACON: Staff is proposing adoption of a
21 certification procedure for enhanced conventional nozzles,
22 or eco nozzles for short. These nozzles do not recover
23 vapors from the vehicle fuel tank during fueling, so their
24 use would be only allowed for refueling at non-retail
25 facilities that serve a captive fleet with vehicle-based

1 vapor controls.

2 Eco nozzles will incorporate state-of-the-art
3 control of liquid drips and spillage that is more
4 stringent than California's ERV nozzles, thus providing
5 greater emission benefits than than the current generation
6 of conventional nozzles.

7 Eco nozzles are expected to be less expensive
8 than EVR nozzles, which has the potential to provide some
9 cost savings at certain facilities. Eco nozzles may also
10 provide significant emission reduction benefits in other
11 states that currently use conventional nozzles for retail
12 fueling.

13 --o0o--

14 ENGINEERING AND REGULATION DEVELOPMENT SECTION
15 MANAGER BACON: Currently there are two types of nozzles
16 available, conventional nozzles and enhanced vapor
17 recovery, or ERV, nozzles. Conventional nozzles were used
18 in California prior to the adoption of vapor recovery
19 rules in 1975 and still used in many states and in some
20 California non-retail facilities that serve fleets with
21 vehicle based vapor controls. These nozzles do not
22 include a means of collecting vapors during vehicle
23 fueling, so they depend on vehicle-based vapor control
24 systems.

25 Conventional nozzles do not have any standards

1 for spillage or liquid controls during fueling. They are
2 the least extensive type of nozzle available on the market
3 today.

4 EVR nozzles are currently required at gas
5 stations throughout California. These nozzles capture
6 vapors from vehicles during fueling and return those
7 vapors to the gas station's storage tank. They can be
8 used with all vehicles, even those with no vehicle based
9 vapor control. EVR nozzles also include spillage and
10 liquid control standards which helps to further reduce
11 emissions. Because they incorporate so many features, EVR
12 nozzles are more expensive than conventional nozzles.

13 --o0o--

14 ENGINEERING AND REGULATION DEVELOPMENT SECTION
15 MANAGER BACON: Staff is proposing standards for a third
16 nozzle type; the enhanced conventional or eco nozzles.
17 Eco nozzles are intended for use only with vehicles that
18 are equipped with vehicle-based vapor control systems.
19 Eco nozzles would be certified by ARB to meet strict
20 liquid control standards so they would spill and drip much
21 less than conventional nozzles. Because they do not
22 include vapor recovery capabilities, eco nozzles are
23 expected to be less expensive than EVR nozzles.

24 Depending on district rules, eco nozzles could be
25 used as a replacement for either conventional or EVR

1 nozzles. Replacing a conventional nozzle with an eco
2 nozzle would have a cost increase and an emission
3 reduction. Staff estimates that emissions reduced by
4 switching from conventional to eco nozzles will cost \$1.84
5 per pound. Replacing an EVR nozzles with an eco nozzle
6 would provide some cost savings and a potential for small
7 emissions reductions. Staff estimates that facilities
8 making the switch from EVR to eco nozzles will save about
9 31 cents for each pound of emissions reduced.

10 --o0o--

11 ENGINEERING AND REGULATION DEVELOPMENT SECTION

12 MANAGER BACON: Staff is proposing several eco nozzle
13 liquid control standards that would be identical to
14 current EVR nozzle standards. This includes strict limits
15 to post-fueling drips, the volume of liquid that is
16 retained within the nozzle after fueling, the volume of
17 liquid spitting when the nozzle lever is pulled while
18 dispenser is turned off, and a requirement that the nozzle
19 is equipped with an insertion interlock that will prevent
20 it from dispensing when it is not inserted into a vehicle
21 fuel pipe.

22 Staff also proposes a liquid spillage standard of
23 0.12 pounds for every 1,000 gallons of fuel dispensed.
24 This is about one-half of the current standard for EVR
25 nozzles, and it represents an 80 percent reduction as

1 compared to fuel performance of conventional nozzles.
2 Nozzle manufacturers have communicated that this lower
3 spillage standard is feasible and can be met without any
4 increase in eco nozzle costs.

5 All current EVR nozzles performed well below the
6 0.12 pounds per thousand gallon level during their
7 certification, so staff is confident that the proposed
8 standard is achievable.

9 --o0o--

10 ENGINEERING AND REGULATION DEVELOPMENT SECTION
11 MANAGER BACON: If the proposal is approved by the Board,
12 eco nozzles would be certified in much the same way as EVR
13 nozzles are currently certified. ARB staff would evaluate
14 nozzle performance at an operating fueling facility for at
15 least 180 days using existing EVR test procedures related
16 to the nozzle's liquid controls. The proposed eco nozzle
17 standards are essentially the same standards that EVR
18 certified nozzles have met.

19 We are confident that EVR liquid control
20 technology and the methods ARB staff uses to evaluate
21 nozzle performance can be successfully applied to EVR
22 nozzles. Upon completion of ARB evaluation, eco nozzles
23 would be listed in an Executive Order that allows for the
24 sale in California and use at non-retail fleet fueling
25 facilities. Subject facilities would have four years from

1 the date of the first eco nozzle is certified to install
2 eco nozzles.

3 --o0o--

4 ENGINEERING AND REGULATION DEVELOPMENT SECTION

5 MANAGER BACON: In the near term, eco nozzles are expected
6 to have only a limited use in California. They are only
7 intended for use with a fleet that has vehicle-based vapor
8 controls so they wouldn't be used in retail applications.

9 Staff estimates that there are currently about
10 325 fleet fueling facilities in California where an eco
11 nozzle would be used. These are generally facilities such
12 as new car dealerships, corporate or government fleet
13 fueling facilities, or rental car fueling operations, like
14 the one shown in this photograph. Vehicle-based vapor
15 controls are included in all newer model light-duty
16 vehicles, so it is likely eco nozzles would be appropriate
17 for use at an increasing number of facilities in coming
18 years as older vehicles are phased out of the fleet.

19 Looking beyond California borders eco nozzles
20 have the potential to provide very significant
21 environmental benefits. In 2012, EPA issued guidance that
22 vehicle-based vapor controls had achieved widespread use,
23 meaning that states could begin removing vapor recovering
24 systems at fueling facilities.

25 Most states have begun this process and are now

1 looking for other ways to offset the resulting increase in
2 emissions. ARB staff has contacted air quality regulators
3 across the nation and found that at least 17 states are
4 interested in possibly requiring eco nozzles as a means of
5 reducing emissions from vehicle refueling. If those 17
6 states replaced their current conventional nozzles with
7 eco nozzles, staff estimates that it would result in
8 reductions of 33 tons per day of reactive organic gases
9 nationwide.

10 --o0o--

11 ENGINEERING AND REGULATION DEVELOPMENT SECTION
12 MANAGER BACON: That concludes my presentation on the eco
13 nozzle proposal.

14 I will now very briefly cover proposed
15 administrative amendments that seek to clarify existing
16 requirements in the vapor recovery certification
17 procedures.

18 --o0o--

19 ENGINEERING AND REGULATION DEVELOPMENT SECTION
20 MANAGER BACON: Staff is proposing several administrative
21 amendments to current certification procedures. The
22 intent is to better clarify what is expected of
23 manufacturers who are seeking to obtain ARB certification
24 for their vapor recovery equipment. These amendments
25 would specify that manufacturers provide more detailed

1 technical information, which will better allow ARB staff
2 to conduct thorough evaluations of certification
3 applications.

4 For example, current procedures specify that the
5 applicant must submit engineering drawings of their vapor
6 recovery system and components. We're proposing changing
7 the certification procedure to specify those engineering
8 drawings must include the full production component, as
9 well as sub assembly and parts with part numbers,
10 dimensions, tolerances, and materials. So having drawing
11 in this level of detail is useful for the initial
12 evaluation as well as subsequent assessment of in-use
13 equipment performance.

14 Staff has always requested that manufacturers
15 submit drawing with this level of detail, but now the
16 certification procedures would reflect that.

17 The proposed amendments do not represent new
18 requirements for vapor recovery equipment manufacturers,
19 but instead they simply provide more detail and greater
20 clarification of existing requirements. These changes are
21 being proposed for certification procedures 201, 206, 207,
22 which apply to underground tanks, above-ground tanks, and
23 eco nozzles.

24 --o0o--

25 ENGINEERING AND REGULATION DEVELOPMENT SECTION

1 MANAGER BACON: That completes the presentation of on
2 today's proposed amendments. I would like to move onto
3 staff's conclusions and recommendation.

4 --o0o--

5 ENGINEERING AND REGULATION DEVELOPMENT SECTION

6 MANAGER BACON: Since its inception, California's vapor
7 recovery program has generally applied a single
8 performance standard to all gasoline dispensing facilities
9 statewide. This approach has been effective, but it tends
10 to limit flexibility for districts implementing the
11 program, and it may not always be the most cost effective
12 solution.

13 Today's proposal is unique for California's vapor
14 recovery program in that it applies different controls to
15 different stations based on factors such as the regional
16 need for reductions, the throughput of the facility, or
17 the makeup of the fleet being fueled.

18 As we move forward, staff envisions a vapor
19 recovery program that expands on this concept of tailoring
20 solutions to meet regional or site-specific needs. We
21 expect to apply this thinking to future amendments in
22 order to maximize cost effectiveness and minimize the
23 burden on the regulated community, while continuing to
24 achieve the program goals of protecting public health and
25 the environment.

1 MR. WAGONER: Good morning, Chairman Nichols and
2 Board members. My name is Jim Wagoner. I'm the Air
3 Pollution Control Officer with Butte County Air Quality
4 Management District. Also currently the CAPCOA Vice
5 President.

6 I'm here speaking on behalf of our organizations
7 in support of the amendments as proposed by your staff.
8 As indicated, CAPCOA engaged with ARB two years ago on
9 this matter. This was a matter where we saw upcoming
10 emission reduction requirements that we weren't getting
11 significant benefits from. Ties back nicely to your
12 previous item related to how ARB's helping small
13 businesses. Your staff engaged with us. We did a review
14 of the data and we found a path forward with amendments to
15 the regulation where we would continue to get the emission
16 reductions in those areas that need them. And then those
17 areas where we didn't need immediate emission reductions
18 we would be get some relief. Helps small businesses. It
19 does help local government. It also helps state
20 government as well because these tanks are primarily
21 non-retail in nature.

22 Again, we appreciate the help of your staff.
23 Michael Benjamin, George Lew, Scott Bacon, and all your
24 staff. And we appreciate the consideration, and we
25 request you adopt the amendments as proposed.

1 CHAIRPERSON NICHOLS: Thank you.

2 Unless there are other witnesses who did not sign
3 up, I think we can close the record at this point and move
4 to a discussion.

5 Yes, Professor Sperling.

6 BOARD MEMBER SPERLING: I have a question. And
7 just to provide a little context for this whole thing. I
8 remember years ago there was a huge fight between the
9 automobile industry and the oil industry about where these
10 vapor recovery systems should be imposed. Should it be on
11 the car. Should it be on the tank. So I haven't really
12 followed it. But there is a lot of implicit in this whole
13 regulation. So you talk about vehicle-based recovery
14 systems. I thought all cars had recovery systems on them
15 for a very long time. Is that not true?

16 MLD CHIEF BENJAMIN: That's not quite correct.
17 U.S. EPA required that beginning with 1997 model year
18 vehicles that they have on-board vapor recovery controls.
19 It's basically a carbon canister and pump that draws in
20 the vapors and burns them when the engine is started.

21 So the older vehicles in the fleet do not have
22 this on-board vapor recovery system. So our concern, for
23 example, the reason we would not want to see the eco
24 nozzle adopted widely in California for some time to come
25 is that statewide only about 78 percent of the fleet as a

1 whole has this on-board vapor recovery system. What?

2 BOARD MEMBER SPERLING: What percentage of miles
3 is that though? It's much higher than 78 percent, those
4 cars older --

5 MLD CHIEF BENJAMIN: That's actually 78 percent
6 is what fraction of the gasoline is consumed by vehicles.
7 So it's weighted for vehicle miles driven.

8 BOARD MEMBER SPERLING: We have a lot of old
9 cars, don't we?

10 CHAIRPERSON NICHOLS: This is a program that's
11 really seared in my memory, because I was on the Board at
12 the time it first came into effect. And I was personally
13 the target of a radio talk show campaign on behalf of the
14 gas station owners in the Bay Area who didn't want to have
15 to install the nozzles. I well remember San Diego was a
16 hot bed of activism on this issue as well. It's
17 interesting to me that we finally arrived at the point
18 where we're actually willing to consider a sort of
19 bifurcated program -- a little more nuanced than that --
20 that does allow for the fact that there are parts of our
21 state that are much more rural. And there are few
22 stations, of course. And the risk to consumers or workers
23 in those places is lower.

24 I still worry about it though, because the fact
25 is that there are some benefits from this program no

1 matter where you are. There are toxic emissions that are
2 captured as a result of the improved systems. But I've
3 become convinced after having been briefed well by staff
4 and asked a lot of questions that we are not leaving very
5 much on the table and that overall we're going to gain
6 more I think as a result of having this additional time
7 and flexibility than we stand to gain as a result of
8 pressing ahead with without the changes.

9 BOARD MEMBER SPERLING: Just out of curiosity, it
10 sounds like what happened is it ended up being both the
11 vehicles and the stations; right?

12 CHAIRPERSON NICHOLS: Yes. And in some cases,
13 they're not compatible with each other. I used to
14 complain bitterly that I had a Volvo that had a fill that
15 wasn't compatible with the current generation of nozzles
16 in the South Coast basin. And as a result of that, I
17 could never use the automated fueling provision. So I
18 was -- I had to live by my own decisions.

19 BOARD MEMBER SPERLING: Good.

20 CHAIRPERSON NICHOLS: Right. Good. Thanks.

21 All right. Any other questions or comments? If
22 not could we have a motion, please.

23 BOARD MEMBER RIORDAN: I would move, Madam
24 Chairman, Resolution 15-8.

25 BOARD MEMBER BALMES: Second.

1 CHAIRPERSON NICHOLS: All in favor, please say
2 aye.

3 (Unanimous aye vote)

4 (Board Members De La Torre and Sherriffs not
5 present for vote.)

6 CHAIRMAN NICHOLS: Opposed?

7 Any abstentions? All right. Great. Thank you
8 very much.

9 CHAIRPERSON NICHOLS: While we're shifting
10 personnel here, I'll briefly mention that the next item is
11 an informational update on recent and ongoing vehicle
12 emissions research studies at the Air Resources Board. I
13 think everyone knows that this agency has a long history
14 of regulating vehicle emissions and that research has
15 played a critical role in providing the information that
16 we needed to develop those regulations and have them be
17 sustainable and sustained.

18 Despite the large emissions reductions that have
19 already been achieved year over year, vehicles are still a
20 major contributor, if not the major contributor, to
21 California's air pollution and climate problems. More
22 action is needed. And it's extremely important therefore
23 that the Board be aware of the latest and most interesting
24 new findings as we go forward.

25 So, Mr. Corey, would you please introduce this

1 item?

2 EXECUTIVE OFFICER COREY: Yes, thank you,
3 Chairman.

4 Vehicle emissions research at ARB has three main
5 goals: To understand the real world effects of current
6 programs, to inform the development of new programs, and
7 to inform the Board on emerging issues that fall broadly
8 within our mission to protect human health.

9 Today's overview of this research includes both
10 extramural contracts and in-house research in support of
11 our efforts to reduce emissions.

12 I'd like too ask Jorn Herner of our Research
13 Division to begin the staff presentation. Jorn.

14 (Thereupon an overhead presentation was
15 presented as follows.)

16 RESEARCH PLANNING CHIEF HERNER: Thank you, Mr.
17 Corey. And good morning, Chairman Nichols and members of
18 the Board.

19 --o0o--

20 RESEARCH PLANNING CHIEF HERNER: The California
21 Resources Board was borne out of Dr. Arie Haagen-Smit's
22 ground-breaking research which showed that most of
23 California's smog resulted from the reaction of emissions
24 from motor vehicles and other sources with sunlight in the
25 atmosphere. This break-through provided the scientific

1 foundation for the development of California's and the
2 National Air Pollution Control Programs.

3 Since 1970, ARB has developed an extensive
4 in-house emissions research program and has funded more
5 than 200 mobile source emissions research contracts.
6 These research programs has supported and continues to
7 support the development of new emission control
8 technologies, tracks the effectiveness of ARB's emission
9 controls programs, and informs the development of new
10 strategies to cost effectively reduce mobile source
11 emissions.

12 --o0o--

13 RESEARCH PLANNING CHIEF HERNER: Staff performs
14 emissions testing for a variety of purposes. This
15 includes testing of new technology to demonstrate
16 durability and effect on emissions. Vehicles from the
17 current fleet are brought in for testing to certify
18 compliance with warranties, evaluate deterioration rates,
19 and generate emissions factors for emissions modeling.
20 Additional testing is also done for the purpose of
21 research and helps guide programs and policy.

22 --o0o--

23 RESEARCH PLANNING CHIEF HERNER: To carry out
24 this work, the agency has a variety of resources, the most
25 critical being our staff experts. The agency has several

1 chassis dynamometers for both light-duty and heavy-duty
2 testing. Our mobile measurement platform allows us to
3 measure pollutants on California's roads and in our
4 neighborhoods.

5 Portable emissions measurement systems, or PEMS,
6 brings the laboratory to the vehicle so to speak and
7 allows for measurement during real world driving. We also
8 rely on research contracts through our annual research
9 plan which allows the Board to draw on the expertise of
10 researchers at California's Universities and elsewhere.
11 Using these varied resources, we are able to provide the
12 best science to inform new and innovative programs.

13 --o0o--

14 RESEARCH PLANNING CHIEF HERNER: To prioritize
15 what research is carried out, the executive office sets
16 broad program goals and divisions meet regularly to
17 identify and implement individual projects.

18 Staff is also active in the scientific community
19 and meets multiple times throughout the year with
20 academics, industry partners, and other government
21 agencies to coordinate our work and identify emerging
22 issues. Through these ongoing coordination efforts, we're
23 able to identify how best appropriate the limited
24 resources available for research.

25 --o0o--

1 RESEARCH PLANNING CHIEF HERNER: Amongst others,
2 the current research portfolio in place is designed to
3 inform the advanced clean cars midterm review, updates to
4 the heavy-duty engine in-use NOx standards, and the
5 freight strategy.

6 With the adoption of the Advanced Clean Air
7 Program by the Board in 2012 and the targets set by the
8 Governor to have 1.5 million zero-emission vehicles on the
9 road in California by 2025, the light-duty sector is in
10 the middle of a transition away from the internal
11 combustion engine as the main power source for personal
12 mobility.

13 In forming that transition is a relatively new
14 area of research, but one that is becoming increasingly
15 important. With ever lower emission standards on-road
16 light-duty vehicles are becoming cleaner, but it is
17 important to have real measurements of emissions to
18 understand the durability of emission control
19 technologies.

20 It is also important to have complete
21 understanding of emissions even beyond the criteria
22 pollutants that are directly regulated. These emissions
23 include ultra fine particles, compounds that are toxic,
24 and are involved in the formation of PM2.5.

25 The research underway in these areas will inform

1 several items that will come before the Board over the
2 next several years, such as the midterm review for the
3 Advanced Clean Car Program, any regulatory updates that
4 will follow from that review, and also possible changes to
5 the incentive programs currently in place.

6 --o0o--

7 RESEARCH PLANNING CHIEF HERNER: Zero emission
8 vehicles and plug in hybrid electric vehicles are quickly
9 entering our fleet with many models available from most
10 major manufacturers and more than 100,000 such vehicles on
11 our roads today.

12 In 2014, these vehicles constituted 3 percent of
13 the total sales and continue to gain market share. Never
14 the less, there are still many open research questions
15 that need to be answered to make sure the initial success
16 in the market of these new technologies continues.

17 For example, what makes a consumer decide to
18 purchase or decide not the purchase a ZEV or HEV? How are
19 PHEVs being used by their owners and what are their
20 emissions implications of that usage? Do older vehicles
21 retain their value in the secondary market? And how do we
22 best use our incentive funds to reach our goals of an
23 almost all-ZEV fleet in the future? All of these research
24 questions are currently being investigated, and answers
25 will be available in time for the advanced clean car

1 midterm review at the end of 2016.

2 --o0o--

3 RESEARCH PLANNING CHIEF HERNER: Even as we work
4 to have more zero emission vehicles on our roads, the vast
5 majority of current cars use internal combustion engines
6 and emit criteria pollutants. We are getting a better
7 understanding of on-road emissions from this important
8 sector through the use of portable emissions measurement
9 systems, through working with our partners at the Bureau
10 of Automotive Repairs to make roadside measurements and by
11 using remote sensing.

12 Results suggest that emissions of many pollutants
13 from individual vehicles have been reduced by 99 percent
14 over the last several decades and that car exhaust control
15 technologies have become more durable in response to the
16 increased warranty periods required in our low emission
17 vehicle programs.

18 --o0o--

19 RESEARCH PLANNING CHIEF HERNER: We often think
20 of vehicle emissions in terms of the specific pollutants
21 that we regulate directly. However, exhaust contains
22 hundreds of compounds whose fate depends on where and when
23 they are emitted. Using the controlled environment of our
24 laboratories, we can fully characterize emissions and
25 develop the complete science to inform our programs and

1 address emerging issues.

2 Recent work on characterizing the physical and
3 chemical properties of PM assisted in the evaluation of
4 the new one milligram per mile standard. This work has
5 corroborated the conclusion of that one milligram per mile
6 can be measured accurately.

7 Ultra fine particles and toxics emissions are not
8 directly regulated but are of general concern for the
9 public health. Recent work from our laboratories shows
10 drastic reductions over the last couple of decades in
11 tandem with reductions in other pollutants, suggesting the
12 possibility that these pollutants need not be regulated
13 directly to be controlled.

14 Gaseous emissions from light-duty vehicles can
15 also condense after releasing to form secondary PM2.5 in
16 some cases in quantities larger than what is emitted
17 directly from the tailpipe.

18 A recent study of the cleanest super ultra low
19 emitting vehicle suggests these precursor emissions are
20 removed from the latest control technology.

21 --o0o--

22 RESEARCH PLANNING CHIEF HERNER: We now switch
23 gears to discuss research priority for heavy duty. The
24 main thrust of the research program is focused on
25 informing regulations intended to realize PM and NOx

1 reductions from this sector. Current research efforts
2 will inform several regulatory items that the Board will
3 be considering over the next couple of years. The
4 research will also inform several of the measures in the
5 freight strategy the Board will hear about next.

6 --o0o--

7 RESEARCH PLANNING CHIEF HERNER: The truck and
8 bus and drayage diesel rules form the backbone of the
9 state's strategy to limit the effect of exposure to diesel
10 particulate matter. Staff have been able to demonstrate
11 the large reductions in black carbon and other emissions
12 that have resulted from these rules, using a mobile
13 monitoring platform.

14 From 2009 to 2011 alone, the average emission
15 factor of black carbon from trucks traveling on the 710
16 freeway near the ports of Los Angeles and Long Beach was
17 reduced by 70 percent. Additional research sponsored by
18 ARB has shown similar reductions near the port of Oakland.
19 These reductions are continuing, and we are now starting
20 to see similar reduction in black carbon emissions from
21 trucks traveling on all of California's highways.

22 --o0o--

23 RESEARCH PLANNING CHIEF HERNER: ARB is
24 sponsoring research that explores remote-sensing
25 techniques to measure emissions factors from thousands of

1 trucks each year in several locations in the state. This
2 work allows us to determine the effect of the truck and
3 bus rule, deterioration rates of aftertreatment, such as
4 diesel particulate filters, or DPFs.

5 The work suggests that well-functioning DPFs
6 virtually eliminate PM, but also that without proper
7 maintenance and when tampered, DPF equipped trucks can
8 still emit PM above the standard. The picture on the
9 right is of a truck at one of our remote-sensing sites in
10 northern California taken just last week. While the
11 details of the truck emissions controls are still
12 emerging, it is clear that it did not have a functioning
13 DPF.

14 --o0o--

15 RESEARCH PLANNING CHIEF HERNER: To address the
16 issue of poorly maintained or tampered with DPFs, we have
17 two research efforts underway.

18 One is testing new ways to quickly and cheaply
19 identify trucks with high emissions, such as lower opacity
20 measurement.

21 The second effort is in the planning stages, but
22 envisions recruiting the trucks identified as high
23 emitters from the remote sensing studies, repairing them
24 to gain an understanding of what triggered the high
25 emissions and quantifying the durability of the repair.

1 These two efforts will inform several regulatory efforts
2 expected to go before the Board and meant to tighten
3 in-use emissions requirements.

4 --o0o--

5 RESEARCH PLANNING CHIEF HERNER: Since the engine
6 NOx standard was reduced to 2.2 grams per brake horsepower
7 hour effective with model year 2010 engines, manufacturers
8 have relied on aftertreatment in the form of selective
9 catalytic reduction, or SCR, to reduce NOx. SCR
10 chemically removed NOx, but requires relatively high
11 temperatures to function properly, relying on heat from
12 the exhaust to reach those temperatures.

13 As early as 2009, ARB published research
14 suggesting there might be truck duty cycles where these
15 temperatures would not be reached and NOx would therefore
16 be higher.

17 Subsequent research has shed additional light on
18 this issue and continues to suggest onroad emissions are
19 higher than expected. The research has been shared with
20 industry and many improvements to manage the temperature
21 in the SCR have already been made.

22 Never the less, a regulatory structure that
23 continues to ensure further reduction in real world
24 emissions is both appropriate and needed.

25 --o0o--

1 RESEARCH PLANNING CHIEF HERNER: To meet the
2 current and upcoming PM2.5 and ozone ambient air quality
3 standards, especially in the South Coast and the San
4 Joaquin Valley, significant NOx reductions beyond what
5 will be achieved with rules currently on the books will be
6 needed.

7 With that in mind, staff is looking to lower
8 engine NOx standards and achieve additional in-use
9 reductions through improvement to our in-use
10 certification. Both of these goals are included in the
11 sustainable freight strategy item you will hear about
12 later and is expected to be presented for regulatory
13 action to the Board in 2018.

14 To inform these strategies, there are two major
15 and complementary efforts underway. The first is a major
16 effort to demonstrate the ability of diesel and CNG
17 engines to meet NOx standards 90 percent lower than
18 today's standard. The project is co-funded by the
19 Manufacturers of Emission Control Association and has an
20 Advisory Committee that includes members from the
21 California Energy Commission, the Engine Manufacturers
22 Association, the South Coast Air Quality Management
23 District, and the US Department of Energy and the US
24 Environmental Protection Agency.

25 Many of the strategies explored in this project

1 will also be useful in achieving in-use NOx reductions.

2 The second goal of achieving low in-use NOx
3 emissions through improved in-use certification protocols
4 is being informed by research to understand the reasons
5 behind the higher-than-expected real world emissions.

6 --o0o--

7 RESEARCH PLANNING CHIEF HERNER: As with light
8 duty, we use the controlled environment of the laboratory
9 to fully characterize exhaust for heavy duty. Recent
10 results include a study comparing the physical
11 characteristics and chemical compositions of PM from
12 trucks with and without DPFs and showed they were similar
13 and PM from both is still diesel PM.

14 Catalyzed DPFs in modern diesel trucks also
15 effectively remove other toxic compounds, such as
16 polyaeromatic hydrocarbons and ultra fine diesel soot
17 which are non-regulated pollutants that have negative
18 health impacts.

19 In order to protect public health, we want to not
20 only reduce criteria pollutants, but also make sure that
21 what is emitted does not become intrinsically more harmful
22 to human health. As a screening method for toxicity, we
23 use chemical and biological tests that measure the ability
24 of the exhaust to induce oxidative stress, cause
25 inflammation, or DNA damage.

1 These tests such the toxicity is not a function
2 of the number of particles emitted but is reduced along
3 with PM mass. As with light duty, our heavy-duty
4 regulatory program, while not specifically targeting these
5 pollutants, still appears to be effective in reducing
6 them.

7 --o0o--

8 RESEARCH PLANNING CHIEF HERNER: Most of the
9 research on heavy duty is focused on the tailpipe. It is,
10 however, imperative that we start the same transformation
11 to zero and near zero transportation that is occurring
12 with light-duty vehicles in heavy duty. Current research
13 is shedding light on the duty cycles of trucks in various
14 vocations to better understand the potential for employing
15 zero emissions and hybrid technologies in those sectors.

16 As hybrids penetrate the heavy-duty sector, it
17 will also become important to develop certification
18 programs that will ensure the greatest benefit from those
19 technologies on road. ARB has started to collect
20 additional data from the technologies demonstrated with
21 public funding to further inform those issues.

22 --o0o--

23 RESEARCH PLANNING CHIEF HERNER: There is a
24 strong need to move to zero emission transportation to
25 meet our air quality and greenhouse gas emission reduction

1 goals. As this figure shows, light-duty vehicles are
2 further along on that path than heavy duty where we're
3 still in the process of getting needed reductions of PM
4 and NOx from vehicles powered by combustion. As we look
5 forward, our research should continue to support the
6 conversion to zero emissions in light duty and start to
7 inform the same conversion in heavy duty. We will also
8 continue to measure the emissions from vehicles currently
9 on our roads and assure reductions continue to occur in
10 line with program expectations.

11 That concludes the presentation. Thank you very
12 much.

13 CHAIRPERSON NICHOLS: We have no witnesses who
14 signed up on this item. There is a lot of information
15 packed into that presentations, as I'm sure people
16 appreciated. And I imagine people had an opportunity to
17 get briefed on this in advance. I'm not sure if we need
18 to have much discussion, but if anybody would like to
19 raise a question or make a comment right now, please do,
20 starting with Dr. Balmes.

21 BOARD MEMBER BALMES: Well, thank you for that
22 presentation. And I was also briefed on it.

23 But first of all, I want to express my
24 appreciation for the long-term staff effort with regard to
25 research on motor vehicle emissions. I think that,

1 without question, our agency is in the forefront of this
2 internationally and this work is vitally important for
3 clean air, both in our state and elsewhere.

4 But I had a specific question about ultra fine
5 particle emissions. And you know, I understand we made
6 major progress in terms of reducing overall particle
7 emissions from diesel. But I've heard in the past some
8 discussion about ultra fines not being reduced as other
9 fractions of the particle mission.

10 I just want to clarify have we made as much
11 progress as this suggested with the ultra fine particles
12 and new diesel engines?

13 DEPUTY EXECUTIVE OFFICER AYALA: Let me kick it
14 off in terms of an answer and others can add as
15 appropriate. I wish I had an easy answer. But it's a
16 complicated topic.

17 But the short answer is, as Your Honor stated,
18 the control technology and technologies in general that
19 this agency has forced have led down the path of reducing
20 PM mass emissions as well as the soot related particle
21 emissions, very small, very tiny ones as well as the
22 bigger ones. And we are confident that the control
23 approach is effective in that regard.

24 I think what you may be hearing is we're also
25 learning that a lot of these tiny particles are not

1 necessarily emitted out of the tailpipe, but they get
2 formed in the ambient. And the classic example is the
3 impact of busy roadways.

4 So there is a lot of research going on in that
5 area, as you know. There is a lot of effort, not only by
6 us, as you said. But we feel confident that the approach
7 we are taking is certainly a no-regrets approach. That
8 the vehicles are getting cleaner. The trucks are getting
9 cleaner. The DPF and similar control technologies are the
10 right approach. Certainly enabled by clean fuels. But as
11 we explore these issues, obviously, we are learning a lot
12 of very interesting questions we are going to continue to
13 pursue. Some of these have exactly to do with what you
14 are asking.

15 BOARD MEMBER BALMES: Thanks. That clarifies it.
16 It's largely second generation of ultra fine particles,
17 not primary emissions we're concerned about.

18 RESEARCH PLANNING CHIEF HERNER: I will add
19 sometimes when those secondary -- that the conditions that
20 sometimes lead to the formation of those secondary
21 particles, the same condition actually seems to reduce the
22 expression in some of these toxicological assays that
23 we're measuring.

24 CHAIRPERSON NICHOLS: Supervisor Gioia.

25 BOARD MEMBER GIOIA: Thanks for the presentation.

1 I know we approve the work plan as we go forward on these
2 research projects. And it aligns with the work that we're
3 all doing.

4 I just wanted to ensure -- and I know we get
5 presentations from the ports as well -- that the results
6 of all of the research is up on our website. I know we
7 have an ARB research activities portion of our website.
8 So all of it is up for others to use sort of as a
9 depository to look at the good work here, I assume. So
10 all of it's up.

11 RESEARCH PLANNING CHIEF HERNER: That is correct.
12 We have our research portal where -- listed -- and a lot
13 of the work that we do internally is published. Have a
14 pretty impressive publication record as an agency on the
15 topic of emissions research --

16 BOARD MEMBER GIOIA: I was wondering what is put
17 up on the site is included, all the studies. There's not
18 a selective determination of what goes up.

19 RESEARCH PLANNING CHIEF HERNER: No. That's
20 correct.

21 BOARD MEMBER GIOIA: Great. Thank you.

22 CHAIRPERSON NICHOLS: Dr. Sperling.

23 BOARD MEMBER SPERLING: So, you know, most of
24 these questions are from Professor Sperling, not Regulator
25 Sperling.

1 CHAIRPERSON NICHOLS: Oh, sorry.

2 BOARD MEMBER SPERLING: It really is -- I have
3 some curious questions to understand these numbers better,
4 because it is a lot of data. And big picture, I think
5 it's important for the Board to understand what these
6 numbers really mean and the progress, especially given
7 that we're focusing more on the freight side as well.

8 So let me first say I think what should be
9 emphasized, this is a huge success story, saying 90
10 percent reduction, that's amazing. That's incredible
11 what's happened in terms of emission reductions. And that
12 should be highlighted here. So let me understand really
13 that.

14 So first of all just following up on Dr. Balmes'
15 question, these numbers are all PM2.5 -- for the
16 particulate is PM2.5 numbers. That's what it is, right.

17 RESEARCH PLANNING CHIEF HERNER: That's correct.

18 CHAIRPERSON NICHOLS: Okay. And for PM these
19 are all tailpipe emissions; right. Okay. So I want to
20 come back to that in a moment.

21 So light duty, it says here 99 percent reduction
22 in the emissions rate over 20 years. Does that mean that
23 in the last 20 years new vehicles are 99 percent better
24 over the last 20 years for NOx, hydrocarbons, and PM? I
25 guess let's just say hydrocarbons and NOx, is that what

1 this --

2 RESEARCH PLANNING CHIEF HERNER: The number is
3 based on research from -- that showed NOx and hydrocarbon,
4 yes.

5 BOARD MEMBER SPERLING: This is real world
6 emissions or --

7 RESEARCH PLANNING CHIEF HERNER: This is based on
8 remote sensing done in Los Angeles and elsewhere in the
9 state.

10 BOARD MEMBER SPERLING: I'm not looking for real
11 precision here. I'm looking to get our basic
12 understanding here. So I mean, it's -- we can say there's
13 99 percent reduction in light-duty emissions for new
14 vehicles over the last 20 years; right?

15 RESEARCH PLANNING CHIEF HERNER: Right.

16 BOARD MEMBER SPERLING: Even for me, I want
17 simple numbers I can use.

18 BOARD MEMBER GIOIA: This is going to be in your
19 next class lecture.

20 BOARD MEMBER SPERLING: Just one more on the
21 light duty.

22 On light duty, it says emissions of air toxics
23 and ultra fine PM have been reduced by 95 percent over the
24 last 25 years. I remember hearing that as the diesel PM
25 emissions were being improved dramatically that the light

1 duty because they were not being emphasized or focused on
2 even though they were small per vehicle that in the
3 aggregate they were actually starting to become a big
4 share of the total. Is that true? Is this something we
5 should be thinking about as light duty PM emissions?

6 RESEARCH PLANNING CHIEF HERNER: Well, we were
7 actually just looking at that number. And I think if you
8 compared a light duty vehicle to a heavy-duty vehicle 25
9 or 30 years ago, the diesel vehicle would emit 100 times
10 more PM. If you compare a modern diesel engine to a
11 modern light duty vehicle, the PM emissions is almost
12 comparable. So that would make the statement you made
13 correct.

14 BOARD MEMBER SPERLING: That was an important
15 little data you just gave us. I mean, really important.
16 I mean, is this -- so when we focus on South Coast or just
17 California PM emissions from vehicles, half of it is
18 coming from light-duty vehicles and half from heavy-duty?
19 Is that what you just said?

20 RESEARCH PLANNING CHIEF HERNER: We're not quite
21 there yet. That's the entire fleet has been modernized.

22 BOARD MEMBER SPERLING: Are we headed in that
23 direction as given the emission standard for trucks and
24 cars?

25 RESEARCH PLANNING CHIEF HERNER: Yes.

1 BOARD MEMBER SPERLING: Go ahead.

2 BOARD MEMBER BALMES: I see this has been an
3 important education for Professor Sperling.

4 BOARD MEMBER SPERLING: And hopefully others,
5 too.

6 So then we look at -- so then going to trucks, it
7 says for trucks here the only graph -- the only number you
8 gave us on truck PM emissions was actually black carbon.
9 I assume that's pretty closely correlated with PM2.5. And
10 it said here -- so these were in-use emissions in South
11 Coast on a freeway and that there was a 70 percent
12 reduction in total emissions over two years. And what
13 that suggests is given our program here with the retrofits
14 and given that there is more and more modern diesel
15 engines coming in with very low emissions, the rate of
16 improvement -- I mean, 70 percent in how many years -- in
17 two years, that's 35 percent a year. One would imagine
18 it's going to be at least that much going into the next
19 ten years or so; is that correct? Just with rules and
20 regulations in place already.

21 RESEARCH PLANNING CHIEF HERNER: This graph shows
22 very well the implementation of the drayage rule at the
23 truck -- at the ports of Los Angeles and Long Beach. The
24 710 freeway and Los Angeles is where a lot of these
25 drayage trucks come. And I think there was a major

1 compliance date in early 2010 where all the vehicles had
2 to be converted for non-DPF equipped trucks to DPF
3 equipped trucks. So the average emission rates of the
4 trucks traveling on the 710, which is dominated by drayage
5 trucks, was reduced by 70 percent.

6 BOARD MEMBER SPERLING: This was only the 710
7 freeway?

8 RESEARCH PLANNING CHIEF HERNER: Correct. We
9 mentioned that in our text as well. Now there is almost
10 two types of truck fleets out there. That's drayage and
11 then there is the one that is subject to the drayage rule.
12 And then the rest of the universe, which is subject to the
13 truck and bus. So we're starting to see the same type of
14 reduction on other freeways in California as the entire
15 fleet becomes subject to the same type of retrofit and
16 modernization through the trucks and bus.

17 BOARD MEMBER SPERLING: So a short way of saying
18 that is we are seeing major reductions in PM this is not
19 just trucks. This is right. This is all -- this
20 represents all vehicles on the freeways, is that right?
21 Or do they separate out the trucks?

22 RESEARCH PLANNING CHIEF HERNER: We separate the
23 light duty and the heavy duty. That's just the heavy
24 duty.

25 BOARD MEMBER SPERLING: So heavy duty trucks

1 are -- emissions from them real world, in-use, are going
2 down at quite very rapid rate.

3 RESEARCH PLANNING CHIEF HERNER: Uh-huh. Yes.
4 At this very impressive. We're starting to make similar
5 graphs to what you see there for the California 60 highway
6 in the Los Angeles basin where we're doing the same type
7 of work, now that the truck and bus is being implemented.

8 BOARD MEMBER SPERLING: I feel like a
9 cross-examining lawyer. But this is actually very
10 informative. I hope others appreciate it.

11 CHAIRPERSON NICHOLS: It is important.
12 Absolutely.

13 BOARD MEMBER SPERLING: Then we get to the NOx
14 emissions and still on PM. You had another slide. I
15 think it's 16 or so. I can't see the numbers. It said
16 diesel PM from modern trucks is reduced by 99 percent I
17 guess versus pre-controlled. Right. So I think that's --
18 and that the soot PM and ultra fine I guess we're still
19 more or less talking about 2.5. It's all I think fairly
20 related reduced by total -- it says emissions of toxic
21 compounds and ultra fine PM reduced by 95 to 99 percent
22 over the last 20 years. Is that total? That must be new
23 vehicles; is that right? What does that refer to? Per
24 brake horsepower hour total?

25 RESEARCH PLANNING CHIEF HERNER: The study we did

1 that allowed us to make that statement measured on a per
2 mile basis.

3 BOARD MEMBER SPERLING: Per mile.

4 RESEARCH PLANNING CHIEF HERNER: You would see
5 the same in per brake horse power hour. Fuel economy
6 hasn't changed that much.

7 BOARD MEMBER SPERLING: That's all PM sources,
8 that's referring to. Is that just truck?

9 RESEARCH PLANNING CHIEF HERNER: It's a DPF
10 equipped truck versus a non-DPF?

11 CHAIRPERSON NICHOLS: These are basically new
12 trucks. So it's the same idea.

13 RESEARCH PLANNING CHIEF HERNER: Yes.

14 BOARD MEMBER SPERLING: 99 percent reduction in
15 20 years. All right. And then there was a NOx slide. So
16 you didn't really present any data on NOx reductions, did
17 you? I don't think I see it here.

18 RESEARCH PLANNING CHIEF HERNER: No. We have a
19 slide similar to the one on black carbon for NOx reduction
20 near the ports of Los Angeles and Long Beach. As part of
21 complying with the retrofit for PM, a lot of operators
22 chose to modernize their fleet rather than retrofit old
23 fleet. That had an effect on NOx because the newer
24 technology emits less. Over the same time period, we saw
25 a 440 percent reduction in NOx.

1 BOARD MEMBER SPERLING: In total NOx, 40 percent
2 per what?

3 RESEARCH PLANNING CHIEF HERNER: Forty percent in
4 the emission factor. The amount of NOx emitted by
5 kilogram of fuel combusted to be exact.

6 BOARD MEMBER SPERLING: All right. That's over
7 what time period?

8 RESEARCH PLANNING CHIEF HERNER: Also over the
9 time period 2009 to 2011.

10 BOARD MEMBER SPERLING: Forty percent reduction
11 in real world NOx emissions from trucks.

12 RESEARCH PLANNING CHIEF HERNER: Correct.

13 BOARD MEMBER SPERLING: Again, we probably -- we
14 would expect to see that kind of reduction continuing into
15 the future for quite a while, given the turnover of trucks
16 and the tighter emission standards on new trucks; would
17 that be correct?

18 RESEARCH PLANNING CHIEF HERNER: Yes.

19 BOARD MEMBER SPERLING: I'm sounding too much
20 like a lawyer here.

21 RESEARCH PLANNING CHIEF HERNER: I actually think
22 the results of 40 percent refers to the trucks that were
23 subject to the drayage rule. A lot of folks met the
24 requirements of the drayage rule by switching into trucks
25 that were certified to the standards of 2007-08 and '09.

1 The broader California-wide fleet now needs to comply with
2 the truck and bus rule. They're also a lot of
3 modernization going on. They will buy even newer trucks,
4 those that were subject to the 2010 standard, which was
5 quite a bit lower than the standard for model year '07 and
6 '08 and '09. I think you will see greater than 40 percent
7 NOx reduction on road elsewhere in California. We don't
8 have the numbers to show that yet, but we will soon.

9 BOARD MEMBER SPERLING: Okay. That was
10 fascinating and very useful I think as we go forward to
11 better understand what we're dealing with. Thanks.

12 CHAIRPERSON NICHOLS: I think that amplification
13 was also helpful. I appreciate the questions. If there
14 are none further, however, I think we should probably
15 thank Jorn and the rest of the team for that and move on
16 to the largest item on our agenda today, which is the
17 sustainable freight program.

18 We'll probably I'm just guessing end up hearing
19 the presentation and having some discussion and deferring
20 the public comment until after our lunch break. But we'll
21 see how it goes because I know there are people who would
22 prefer that we just go right through. So we'll see how
23 the timing goes here.

24 This is really watershed moment here in our work
25 on freight. I'm really excited about the progress that's

1 being made in aligning State agencies to work together on
2 an integrated sustainable freight strategy and am pleased
3 some of them have been able to join us here today.

4 I'm convinced that our long-term success will
5 depend not only on achieving the air quality and energy
6 goals that are assigned to us, but also to integrate those
7 with mobility, safety, and economic objectives as well.
8 And so this effort really looks to the cargo owners and
9 the logistics providers to add their knowledge and their
10 leadership on the issues of system-wide efficiency
11 improvements that can help us to advance all of these
12 objectives.

13 As we embark on this effort, however, it's really
14 important for the Air Resources Board to put its cards on
15 the table in terms of what we, as an agency, need to
16 achieve by way of our public health and climate
17 objectives. So this presentation today -- I think it's
18 important it's going to come up again, I'm sure -- does
19 not represent our view of where we're going to end up. It
20 certainly isn't complete as far as all the work that will
21 be done and is ongoing. But it does represent the Air
22 Resources Board's piece of this particular puzzle, what we
23 bring to the table in terms of our demands and our
24 expertise as well.

25 So hopefully the discussion today can focus on

1 this aspect of it. But bearing in mind these are only
2 part of many ideas that are alluded to in the document
3 itself and also that will be included as we move on
4 towards a broader effort to reaching our goals.

5 With that, I'd like to open this up with Mr.
6 Corey's introduction.

7 EXECUTIVE OFFICER COREY: Thank you, Chairman.

8 The need to accelerate air quality progress for
9 public health is substantial and the scope of emission
10 reductions to meet all of our mandates is vast. The
11 sustainable freight pathways to zero and near zero
12 emissions discussion document describes the actions that
13 seek to move to system towards transformation while also
14 providing public health benefits as soon as this year.

15 The document identifies potential new near-term
16 measures to be developed in a public process over the next
17 few years. And it discusses approaches that staff is
18 evaluating to determine if they represent the best path to
19 help meet our air quality and climate goals.

20 The document builds on stakeholder engagement and
21 the conclusions of the technology assessment overview also
22 released earlier in April.

23 Now I'd like to have Sydney Vergis present the
24 staff presentation. Sydney.

25 (Thereupon an overhead presentation was

1 presented as follows.)

2 MS. VERGIS: Thank you, Mr. Corey. Good morning,
3 Chairman Nichols and members of the Board.

4 We are pleased to be here today to provide an
5 update on the work with our State partners to develop a
6 sustainable freight strategy. Today's update describes
7 that work to date. You have before you a discussion draft
8 document that represents ARB's initial air quality marker
9 for a sustainable freight system, in response to prior
10 Board direction.

11 In 2014, the Board directed staff to work with
12 stakeholders to identify and implement near-term actions
13 to reduce localized risk in communities near freight
14 facilities, identify and prioritize actions to move
15 California towards a sustainable freight transport system,
16 evaluate and implement opportunities to prioritize
17 transformative zero and near-zero emission technologies,
18 and coordinate with other state agencies regarding freight
19 planning activities.

20 Our work is not done. Moving forward, ARB staff
21 will continue working with the State's transportation and
22 energy agencies, as well as the Governor's Office of
23 Business and Economic Development, local partners, and
24 stakeholders to develop a proposed comprehensive
25 integrated sustainable freight strategy.

1 --o0o--

2 MS. VERGIS: Today, I will cover an overview of
3 California's freight transport system, including air
4 quality needs, discuss the ongoing collaborative efforts
5 between ARB and partner agencies and stakeholders to
6 develop an integrated California sustainable freight
7 strategy document, and provide an overview of the pathways
8 to zero and near-zero emissions discuss draft.

9 --o0o--

10 MS. VERGIS: California's freight system is part
11 of the vast inter-connected national and global system.
12 The smooth functioning of California's freight transport
13 system depends on the interactions between equipment and
14 infrastructure and facilities. The vessels and equipment
15 that move freight range from aircraft to oceangoing
16 vessels to locomotives, trucks, delivery vans, and harbor
17 craft. A wide variety of equipment, such as cargo
18 handling, industrial, and ground service equipment is used
19 at freight hubs and facilities like sea ports, airports,
20 rail yards, distribution centers, and warehouses.

21 --o0o--

22 MS. VERGIS: The freight transport system is
23 complex and consists of import, export, and domestic
24 supply chains. This slide depicts one example of an
25 import supply chain. It is a simplistic representation of

1 the transport modes, equipment, and facilities often used
2 to move imports from the manufacturer to the destination
3 market and consumers, whether in California or elsewhere
4 in the US.

5 --o0o--

6 MS. VERGIS: To give you a quick look at major
7 freight hubs or cargo operations, our communication staff
8 prepared a video with clips shared by several facility
9 operators. The video will run for four minutes.

10 (Whereupon a video was played.)

11 MS. VERGIS: In 2013, California's entire gross
12 domestic product was \$2.2 trillion. Freight dependent
13 industries accounted for over \$700 billion, or 32 percent
14 of that California economy and over five million or 33
15 percent of California jobs. Freight-dependent industries
16 rely heavily on the transport of raw materials,
17 intermediate goods, and finished products. They also
18 typically include transportation, warehousing and
19 utilities, wholesale and retail trade, manufacturers,
20 agriculture, and mining.

21 --o0o--

22 MS. VERGIS: In addition to providing economic
23 benefits to the State, freight activities also result in
24 emissions that impact air quality and climate change.
25 Industry investments in response to actions by ARB and

1 federal and local government partners have made progress
2 in reducing statewide freight emissions.

3 For example, these combined actions have cut
4 emissions of toxic diesel particulate matter at the
5 state's largest sea ports by 80 percent over the last
6 decade.

7 In the long term, freight emissions from nitrogen
8 oxide, sulfur oxides, and particulate matter are projected
9 to continue decreasing. But greenhouse gas emissions are
10 expected to increase with trade growth, as existing
11 control strategies in this sector have primarily focused
12 on reducing toxic and criteria air pollutants.

13 Despite the progress made to date, California's
14 freight transport system still accounts for about half of
15 the toxic diesel particulate matter statewide, 45 percent
16 of the NOx emissions, and 6 percent of the greenhouse gas
17 emissions.

18 --o0o--

19 MS. VERGIS: The need to accelerate progress in
20 reducing emissions from freight is based on several
21 factors. A new risk assessment methodology from the
22 Office of Environmental Health Hazard Assessment tells us
23 that infants and children are more sensitive to the
24 harmful effect of exposure to air toxic, like those
25 emitted from freight equipment than previously understood.

1 Further, meeting federal ozone and PM2.5
2 standards in the South Coast and San Joaquin Valley will
3 require significant near reductions over the next 15
4 years. Meeting the state's greenhouse gas targets will
5 also require new strategies to improve freight efficiency
6 and reverse the trend of increasing greenhouse gas
7 emissions.

8 --o0o--

9 MS. VERGIS: To achieve our public health air
10 quality and climate change goals, a system transformation
11 is necessary. This means a move towards a sustainable
12 freight transport system that relies on equipment with
13 zero tailpipe emissions everywhere possible and near zero
14 technologies with renewable fuels everywhere else.

15 Additionally, there are efficiency improvements
16 in the structure and operations of a company, a facility,
17 and the system to simultaneously achieve climate and air
18 quality gains, cost savings, and the ability to increase
19 the capacity of the transportation system without
20 increasing its footprint.

21 --o0o--

22 MS. VERGIS: To support this transition, the
23 sustainable freight strategy will identify the specific
24 actions and milestones that agencies, the logistics
25 industry, and others need to take over the next decades to

1 address multiple objectives.

2 --o0o--

3 MS. VERGIS: ARB's discussion draft and the
4 technology assessments along with the California Freight
5 Mobility Plan and the Integrated Energy Policy Report
6 provide a foundation to begin the integrated statewide
7 planning effort. The State's environmental, energy, and
8 transportation agencies together with the Governor's
9 Office of Business and Economic Development will be
10 working with local partners and stakeholders to develop a
11 comprehensive draft strategy that is responsible to
12 California's needs.

13 --o0o--

14 MS. VERGIS: The environmental objectives of the
15 strategy include: Reduce freight-related emissions to
16 help meet federal ambient ozone and particulate matter air
17 quality standards; minimize near source exposure and the
18 associated health risks to diesel particulate matter; and
19 lower the carbon intensity of the freight sector with
20 improved efficiency and the use of zero and near zero
21 emissions vehicles and equipment using renewable fuels.

22 --o0o--

23 MS. VERGIS: The transportation objectives
24 include increase the efficiency of freight movement on
25 California's highway, rail, air, and marine networks to

1 support the state's trade economy, identify dedicated
2 funding for freight infrastructure improvements, and
3 prioritize fix-it-first investments, including advanced
4 technology.

5 --o0o--

6 MS. VERGIS: The economic objectives include
7 enhance the economic competitiveness of California's
8 logistics system, continue to advance California's
9 position as a leader of green markets in domestic commerce
10 and international trade, establish a policy framework to
11 attract industry and create clean energy investments which
12 generate green and high value jobs and reduce
13 congestion-related costs by increasing freight corridor
14 capacity and the productivity of under-used transportation
15 infrastructure.

16 --o0o--

17 MS. VERGIS: The ongoing technology assessments
18 and the additional work to propose near-term freight
19 measures will feed into the sustainable freight strategy.
20 The strategy development will also inform other air
21 quality and climate change planning processes to prepare
22 the State Implementation Plan, short-lived climate
23 pollutant plan, and updates to the AB 32 scoping plan.

24 --o0o--

25 MS. VERGIS: This document is intended to provide

1 an advanced look at the ideas we are evaluating and invite
2 stakeholder feedback that will inform both our development
3 of specific measures and the sustainable freight strategy.
4 Public comments on the discussion draft document provided
5 for this meeting will inform the Board's direction to
6 staff today.

7 A number of stakeholders have expressed interest
8 in providing additional comments. Staff welcomes that
9 input over the next several months to help shape the
10 technical and economic assessments for the near-term
11 measures and full strategy.

12 --o0o--

13 MS. VERGIS: Last year, the Board directed us to
14 identify and implement actions to quickly reduce the
15 health risk from diesel particulate matter in the most
16 impacted communities around freight hubs. We are
17 initiating multiple activities to deliver benefits this
18 year.

19 --o0o--

20 MS. VERGIS: Staff is expanding enforcement of
21 existing regulations at or near freight hubs through
22 several mechanisms. First, ARB is re-assigning existing
23 personnel to assist with these focused enforcement efforts
24 and continuing to seek additional air district and port
25 partners that can enforce ARB regulations in their

1 For ocean-going vessels, we'll advocate with our
2 international partners for more stringent vessel emission
3 and efficiency standards, encourage the cleanest ships to
4 come to California, and achieve additional emissions
5 reductions at berth.

6 For locomotives, we identify petitioning US EPA
7 to develop the next phase of lower locomotive emission
8 standards and petitioning US EPA to amend its regulatory
9 definition of a new locomotive engine to narrow the scope
10 of federal preemption.

11 If that happens, ARB staff would develop and
12 propose a regulation applicable to all non-new locomotives
13 to maximize the use of lower emission engine and fuel
14 technologies.

15 Staff will also be collecting data from freight
16 facilities to better identify needs and opportunities for
17 further reductions.

18 --o0o--

19 MS. VERGIS: Potential zero emission measures are
20 intended to accelerate the use of zero emission
21 technologies and include developing proposals in last mile
22 freight delivery applications and large spark ignition
23 equipment such as forklifts. This category includes a
24 proposal to gradually transition to plugging into electric
25 power when refrigerated containers are parked at hubs,

1 rather than continuing to run their diesel transport
2 refrigeration units.

3 Other zero emission measures are intended to
4 provide crossover benefits to freight applications and
5 include developing proposals to accelerate use of zero
6 emission transit buses and airport shuttles.

7 Staff is also proposing developing modifications
8 to existing incentive programs to increase the emphasis on
9 and support for zero and near-zero emission equipment used
10 in freight operations.

11 We are creating a new approach to design these
12 regulations and complimentary incentives to support each
13 other from day one.

14 --o0o--

15 MS. VERGIS: The draft document describes staff's
16 current vision for each equipment category, specifically
17 how each category can move towards using zero or near zero
18 emission technology. Development of this vision relied
19 heavily on what ARB staff has learned from the technology
20 assessment process. The key element of these vision
21 tables is the list of potential levers available to ARB.
22 This list provides us the starting point for our
23 evaluations and discussions with stakeholders as we work
24 on the sustainable straight strategy.

25 --o0o--

1 MS. VERGIS: In addition to identifying potential
2 sector-specific control measures, the document also
3 describes broad based approaches that could provide
4 opportunities for additional system transformation. Many
5 are best accomplished by other agencies or industry
6 leadership.

7 Concepts include: Optimizing land use and
8 freight infrastructure planning similar to the SB 375
9 approach for passenger transportation, developing a
10 freight land use handbook that identifies best practices
11 for the siting, design, and operation of freight
12 facilities to minimize exposure to air toxics and maximize
13 the capacity of the transportation infrastructure;
14 implementing logistics and information technology changes
15 for greater operational and system-wide efficiencies; and
16 explore a facility-based emissions cap approach to reduce
17 risk and provide flexibility to equipment operators to
18 chose which elements of their operations are best suited
19 to zero emission technologies.

20 --o0o--

21 MS. VERGIS: With the Board's direction today,
22 staff will make any identified revisions to the discussion
23 draft and begin to work on the immediate and near-term
24 measures. We will continue working with our partner
25 agencies on the broader California sustainable freight

1 strategy to craft a work plan that describes key
2 milestones and the public process. Because of the level
3 of interest in the subject, we plan to return to the Board
4 this fall with the next update on our progress and in
5 mid-2016 with the proposed sustainable straight strategy.

6 --o0o--

7 MS. VERGIS: A sustainable freight transport
8 system is a high priority for ARB and a critical part of
9 meeting the state's air quality and climate change goals.

10 This is an informational item. However,
11 wastewater asking the Board to consider Resolution 15-22
12 which directs staff to develop the concepts into specific
13 proposals for the near term actions and to evaluate the
14 policies contained in the discussion draft for potential
15 inclusion in future ARB documents.

16 The resolution further directs staff to continue
17 coordination with its sister agencies to develop a
18 proposed California sustainable freight strategy.

19 --o0o--

20 Thank you for your time. Representatives from
21 our partner State agencies are here to speak on this item
22 and the ongoing California sustainable straight strategy
23 effort.

24 BOARD MEMBER RIORDAN: Thank you, Sydney.

25 It's my pleasure to introduce those guest

1 speakers and start with our partners in transportation and
2 move on to our Governor's Office of Business and Economic
3 Development.

4 First, Kate White, if you would come forward to
5 the microphone. Kate is the Deputy Secretary for the
6 Environment and Housing for the California State
7 Transportation agency.

8 MS. WHITE: Thank you so much. And good morning,
9 Board members.

10 On behalf of Brian Kelly, Secretary Brian Kelly,
11 I'm very pleased to be here this morning. And the State
12 Transportation Agency, for those of you who maybe aren't
13 paying attention to all the reorganization that's
14 happening at the state level, came into being in July
15 2013. And it was part of the Governor's reorganization to
16 consolidate eight transportation functions under one
17 umbrella, including High speed Rail Authority, CalTrans,
18 CHP, and others. The new agency really brings a laser
19 focus on the transportation sector. And with many
20 multiple initiatives that many of us are working on to
21 bring the sector in line with the state's Overall goals,
22 including environmental and air quality goals.

23 So within the transportation sector, we
24 acknowledge and are pleased to partner on the need for a
25 unified vision across the state with where we want to go

1 with the freight sector. And today represents an
2 important step in that direction.

3 We see the three legs of the clean freight stool
4 being economic efficiencies, energy, and air quality. As
5 your staff presented, there is a number of documents and
6 plans that will be feeding into the sustainable straight
7 strategy, including our California Freight Mobility Plan
8 published by Caltrans, and you have a little brochure
9 hopefully in front of you that was passed around that is a
10 little summary of the Freight Mobility Plan which was
11 published in December and provided a marker for our leg of
12 the stool. It really identifies various tiers of priority
13 routes and facilities that are critical for California's
14 economic growth. The California Environment Energy
15 Commission, as you know, publishes the integrated energy
16 policy report, and of course, today represents ARB's
17 marker pathways to zero and near zero emissions.

18 So the Air Resources Board's contribution to
19 developing state freight policy with the release of this
20 draft report is very significant. The challenge before us
21 now is to work together across agencies and departments,
22 including Caltrans, regions and stakeholders to identify
23 those areas ripe for investment to develop a clean, safe,
24 reliable and high functioning freight system capable of
25 delivering on our economic and environmental objectives.

1 Thank you.

2 BOARD MEMBER RIORDAN: Thank you very much.

3 Next let me introduce Lucetta Dunn, Chair of the
4 California transportation commission. Welcome.

5 MS. DUNN: Thank you very much. It's my honor to
6 be here. Lucy Dunn, Chair of the California
7 Transportation Commission.

8 I can't thank you enough on behalf of all of the
9 Commissioners that were invited to speak today. Let me
10 say at the outset that my remarks about continuing
11 collaboration between your Board and the CTC is vital to
12 addressing the state's both transportation and
13 environmental needs. We think it's very critical. And
14 although CTC received an initial briefing on some of the
15 concepts being discussed by ARB, that are now included in
16 the draft sustainable freight plan, we have not yet
17 actually taken up as a Commission the new draft that is
18 presented to you for your consideration today. It
19 actually was a timing thing where our Board hearing comes
20 up in May. So my comments today reflect some of the
21 thoughts of the commissioners but will take a more formal
22 review in our main meeting.

23 As you know, the Commission programs and
24 allocates billions of dollars directed to investments in
25 California's transportation infrastructure. Of great

1 concern to the Commission is the lack of sufficient
2 funding available to address the state's growing
3 transportation needs for a growing population and a
4 recovering economy. It is imperative that today's
5 constrained funding for 21st century infrastructure is
6 dedicated to the most critical needs providing the
7 greatest overall benefit to California's safety, economy,
8 and quality of life.

9 Traffic congestion and cranky residents of
10 California will not help us achieve the goals that the
11 State has set for our environmental benefits, nor low
12 emissions. We commend your staff for outlining the
13 strategies under consideration for achieving healthy air
14 quality, climate, and those environmental goals.

15 We are pleased that your staff is taking the time
16 to listen to business and industry stakeholders to ensure
17 that their concerns are addressed before the strategy is
18 finalized. It is with this perspective that I offer
19 comments for your consideration.

20 First, I'm pleased that ARB is working with
21 Caltrans and others to develop one comprehensive
22 integrated state plan utilizing the California Freight
23 Advisory Committee and discussions with all interested
24 stakeholders. Please be assured that we stand ready to
25 work in partnership with the Board and others on this

1 effort.

2 Integrated statewide transportation model plans
3 with agreed upon statewide priorities are of highest
4 importance to the Commission since we invest in projects
5 that are included in regional and state transportation
6 plans. Multiple statewide freight plans increases the
7 risk that transportation funding is not leveraged and
8 strategically invested in the highest priority projects.
9 One state, one freight plan, please.

10 There are other important planning efforts
11 underway as well as. Since freight is a critical
12 component to the transportation network, we encourage ARB
13 to assist CalTrans in transparently integrating the
14 Board's straight strategies in the draft California
15 transportation plan. This will allow all stakeholders to
16 understand and have an opportunity to weigh in on the
17 statewide transportation network, including freight
18 technology, and other factors envisioned through 2040.

19 We believe it is important to ensure that the
20 economic implications of any state strategy are fully
21 understood. As California moves forward in meeting its
22 environmental goals, it is critical to ensure that the
23 state's economy is not adversely effected.

24 We encourage an independent economic analysis so
25 that the impacts of the measures, projections, and

1 assumptions are peer reviewed and supported. And we
2 commend your staff for working with other State agencies,
3 such as the Energy Commission, the Transportation Agency,
4 and GoBiz to develop your draft plan.

5 Given the importance of the measures outlined in
6 this draft California businesses and the overall economy,
7 we encourage you to ensure that affected stakeholders,
8 including public and private sector partners, are fully
9 engaged in the process moving forward before Board actions
10 are taken. And as your staff has heard many times,
11 freight goods movement and logistics are highly complex
12 competitive global systems within systems. Rules set here
13 will effect where global competitors decide or not to do
14 business.

15 I appreciate your efforts to listen and include
16 the business communities and others in the process to
17 develop this strategy. I want to give particular
18 commendation to Richard Corey. He has been so patient and
19 thoughtful and engaging and is a great asset to the Air
20 Resources Board. We thank you.

21 And on behalf of the Commission, we look forward
22 to hearing more at our Commission meeting in May and plan
23 to continue to work very closely with you. Thank you.

24 BOARD MEMBER RIORDAN: Thank you very much. Your
25 Commission is an important partner to us. And we

1 appreciate your recommendations.

2 Thank you for the commendation for Mr. Corey. We
3 know he's a patient man. Very patient. Yes.

4 BOARD MEMBER SPERLING: I'd like to -- so the
5 thrust of your presentation is you have this coordination.
6 Can you just give us a few little quick insights from a
7 CTC perspective how that might work, how this coordination
8 and collaboration would actually work in practice?

9 MS. DUNN: Well, Dr. Sperling, I think it's
10 already started with staff reaching out to these other
11 partner agencies.

12 And again, I would be speaking only in my
13 personal thoughts when the Commission hasn't actually
14 taken a formal review on it. But I think ultimately the
15 one overarching theme was one state, one plan. So people
16 know the rules of the game going in and they can
17 appropriately plan.

18 When such a complex global system knows at the
19 outset what the rules are, it's more likely compliance and
20 success occurs. I think that's overarching.

21 And then the number two overarching from the
22 Commission is the funding of the California transportation
23 system as a whole. As you may have recalled, we completed
24 a report a couple years ago on the infrastructure needs of
25 the state. We are about \$300 billion short for what we

1 need right now today for the next ten years. That is
2 daunting. And yet in the mean time, we're trying to
3 change our system, right. Trying to recreate the train,
4 if you will, with really aggressive and formidable state
5 environmental goals, while making sure that we can still
6 keep our economy going and provide for growing population.

7 So I would share with you there is much work to
8 be done. And all of the voices are going to be
9 particularly important to hear.

10 BOARD MEMBER SPERLING: Thank you. I just want
11 to return the favor to thank -- I spent two weeks ago
12 spent a week and a half with your Director. And he was
13 trying to explain to me that intricacies of how the
14 financing worked -- transportation financing works in
15 California. And I thought I knew something about it and
16 came to appreciate how complex that little piece of -- not
17 little piece, that piece is. So I appreciate the
18 willingness certainly of Will Kempton and his staff to
19 help out. So thank you. I think we're going to be
20 needing to do a lot more of that as we go forward.

21 CHAIRPERSON NICHOLS: Thank you again. Moving
22 on, Steve Cliff, Assistant Director, sustainability for
23 Caltrans. This is a familiar face.

24 MR. CLIFF: Good morning, Board members. I'm
25 Steve Cliff, Assistant Director for Sustainability at

1 Caltrans.

2 And it's truly an honor to be back before you
3 today for the first time in my new role. As you know, one
4 of the reasons my position was created was to coordinate
5 Caltrans sustainability efforts and ensure that our goals
6 as a department are consistent with those of the state.

7 Since leaving ARB, I've had numerous
8 opportunities to work with your staff in a number of areas
9 of common interest. And these range from efforts to green
10 our fleet to developing a planning framework to support
11 the state's near, mid, and long-term climate goals.

12 I'm happy to report these efforts have led to
13 extremely close coordination between ARB and Caltrans.
14 And indeed, among other departments and agencies,
15 including the State Transportation Agency and GoBiz that
16 stand before you today.

17 I've asked the clerk to hand out our newly
18 released strategic plan you have before you. It's
19 available on the web for those who are watching the
20 webcast or here in the audience. In this document, you'll
21 see that Caltrans has adopted a number of goals that we
22 share with ARB, including aggressive targets that are in
23 line with achieving California's sustainability goals.

24 Our new mission, provide a safe, sustainable
25 integrated, and efficient transportation system to enhance

1 California's economy and liveability sets the stage for
2 our continued collaboration.

3 Over the past several months, Caltrans has been
4 putting together this strategic plan to detail how we'll
5 measure progress toward achieving our five new goals. Two
6 in particular that are most interest to ARB's mission are
7 safety and health, which we define as provide a safe
8 transportation system for workers and users and promote
9 health through active transportation and reduced pollution
10 in communities. And our goal, sustainability,
11 liveability, and economy, which we define as make
12 long-lasting smart mobility decisions that improve the
13 environment, support a vibrant economy and builds
14 communities.

15 Goals that we share with ARB include, reducing
16 diesel PM consistent with the diesel risk reduction
17 program, reducing NOx consistent with the South Coast SIP,
18 and reducing greenhouse gas emissions 80 percent below
19 1990 levels by 2015.

20 Most recently, we've been working with your staff
21 on the sustainable freight effort. We all know that
22 freight is critical to California's economy and
23 transitioning this economic engine towards zero and near
24 zero emissions will simultaneously promote a clean
25 environment, a vibrant economy, and improve liveability

1 for Californians. This includes ongoing dialogue about
2 what the vision should be, what the type of metrics we
3 should put in place to know whether we're making progress
4 and on track for success.

5 And as Deputy Secretary White mentioned, the
6 California State Transportation Agency and CalTrans
7 completed the California Freight Mobility Plan, or CFMP at
8 the end of last year. And working together with the
9 California Freight Advisory Committee, a panel of more
10 than 60 freight stakeholders as you just heard, we believe
11 the CFMP provides a foundation upon which the
12 sustainability freight strategy can build. CalSTA and
13 Caltrans envision that the Freight Advisory Committee will
14 continue to inform the discussion as the sustainable
15 freight plan continues to evolve.

16 Finally, to support the sustainable freight
17 effort, Caltrans adopted in the strategic plan a goal of
18 increasing freight efficiency by ten percent by 2020.
19 Working together with our sister agencies and other
20 sustainable freight partners, we'll develop strategies to
21 achieve this goal and precisely define how we measure
22 progress.

23 In short, we're excited to be a part of this
24 important work and stand ready to facilitate California's
25 leadership on sustainable freight. Thank you for your

1 hard work on this important issue.

2 CHAIRPERSON NICHOLS: Thank you very much, Mr.
3 Cliff.

4 This is not the Caltrans that I started my legal
5 career suing to stop building freeways through low-income
6 communities in Los Angeles. It's great. Thank you very
7 much.

8 BOARD MEMBER SPERLING: Can't blame Steve for
9 that.

10 CHAIRPERSON NICHOLS: No, I don't at all. I
11 give him credit for being part of the transformation.

12 I think our next speaker is Kish Rajan, Director
13 of the Governor's Office of Business and Economic
14 Development, otherwise known as GO-Biz.

15 MR. RAJAN: Board members, it's nice to see you.
16 Thank you for having me. I appreciate it. It's really
17 good to be here. I've enjoyed the process today. And
18 it's a pleasure to be able to talk about that for a moment
19 and talk about GO-Biz and the ways we've been
20 participating thus far and the way we look forward to
21 continuing our collaboration with you and our partners at
22 CalSTA, CalTrans, Energy Commission, and others on this
23 most important topic.

24 I'm Director of the Governor's Office of Business
25 and Economic Development, or Go-Biz. We are, as you may

1 know, the State's office department that's focused on
2 California's economy, our business climate our business
3 prospects, all things that are intended to help improve
4 those so that we're growing business, growing jobs,
5 enhancing California's economic competitiveness and
6 vibrancy.

7 And the good news is that we're doing well of
8 late. I loved the video. I might note since it was made,
9 California has ticked up to the seventh largest economy in
10 the world. And France and the UK are in our sites, and we
11 are continuing to move. That GDP is up to \$2.2 trillion,
12 and we've got great momentum. And the momentum underneath
13 that aggregated number shows we have a real growth across
14 all types of sectors. Very diversified economy abroad and
15 deep economy that's revealing it's very positive. Our
16 unemployment rate at one point not too long ago was
17 nearing 13 percent. It is now down to six and a half
18 percent. I can give you lots of other statistics that
19 show that there are very positive things that are
20 happening with California's economy today, which is very
21 encouraging, of course.

22 I will also say at the exact same time all these
23 things are true, we see lots of struggle and challenges
24 across California's economy as well. I personally see it
25 as I travel around all the state to all of our distinct

1 regions, seeing in many case very disparate economic
2 conditions. And the places in our state that aren't
3 benefiting from this global transition into a
4 knowledge-based information technology-based economy but
5 those places that are still organized around traditional
6 industrial sectors of our economy, we still see stubborn
7 unemployment rates in the double digits. We see economic
8 inertia into many communities across California. So we
9 have to be mindful of the fact while we have much going
10 for us, we have much work to do. We have to architect an
11 economy and an infrastructure and policies of all kinds
12 that allow us to build upon our strengths but ensure that
13 we are creating the conditions going forward where
14 prosperity and opportunities can be real for all
15 Californians, not just some. It's an enormous challenge
16 that we must rise to. Of course, all of that's happening
17 in the context of the Governor's vision for California to
18 be not just a national but a global leader in the fight
19 against climate change, something this agency has been so
20 determined and so effective to help him do.

21 So as the Governor acknowledged in his State of
22 the State address, we have to find ways to reconcile these
23 objectives. As he said, "We must demonstrate reducing
24 carbon is compatible with an abundant economy and human
25 well being." Of course, he acknowledged those are big

1 challenges to rise to. But exactly the kinds of
2 challenges that he and all of us as Californians have been
3 and will continue to rise to. And it's something that
4 we'll have to work hard on and buy into collectively.

5 That's why it's been a pleasure to work on this
6 process. I want to commend Richard and the whole team and
7 my colleagues and the other agencies that we've been
8 working with. It has, indeed, been a collaborative
9 effort. I think we acknowledge we're going to have to
10 hard word, be creative, be innovative, and be strategic in
11 ways that we can look at our climate goals, look at our
12 economic goals, look at our quality of life goals in
13 general in California and find new and innovative ways to
14 integrate those and to achieve those objectives.

15 Certainly, as it relates to freight and goods
16 movement and logistics in our state, the economic
17 implications are huge, as was highlighted in the
18 presentation by staff and that I will underscore. You're
19 talking about a third of the California's economy right
20 now. Economic output and jobs. It's enormous. And it's
21 significant. And the competitiveness in this area is only
22 getting more intense as well with the rise of other west
23 coast port operations, with the widening of the Panama
24 Canal, which is scheduled to be completed and open very
25 soon. Witness the job poaching mission by Governor Rick

1 Scott from Florida just last week when he was here really
2 focused on freight, wanting to get as much cargo to bypass
3 California all together. As we all know, he's not the
4 only Governor across the state and not the only leader
5 around the world that would love to get some of the
6 massive market share that California has enjoyed in this
7 area.

8 So we're going to have to be mindful of those
9 economic pressures, those competitiveness pressures. We
10 need to modernize this freight system in California purely
11 on economic and competitiveness grounds. We have to make
12 the system more efficient. We have to make it more
13 competitive. We have to make it more effective. We have
14 to make the business case strong for why the global supply
15 chain wants to be in California, because it's good for
16 their business. We must modernize the system.

17 But therein lies the opportunity. In
18 modernization, we can make it cleaner and more efficient
19 and make it achieve our environmental and quality of life
20 goals as well. That's why this partnership is so
21 important. Clearly, we're going to undertake policies and
22 investments. We're going to spend billions of dollars of
23 private and public sector moneys over the next decades to
24 modernize the system so this process of doing it in a way
25 that's coordinated and integrated, achieving our overall

1 goals is so smart and so important and why we're placed to
2 be a participant in.

3 So I will simply say the GO-Biz looks forward to
4 continuing this collaboration, continuing the partnership
5 to develop a sustainable freight plan going forward that
6 works towards all of our objectives, to live out the
7 principle that I think we started on and we must carry
8 through, which is that sustainable means good for the
9 economy and good for the environment.

10 So with that, thank you very much for the chance
11 to be here.

12 CHAIRPERSON NICHOLS: Thank you. I believe that
13 completes the list of other agency witnesses. I really
14 want to appreciate your taking the time to come and join
15 us.

16 One more. I'm sorry. Energy Commission, hanging
17 out in the back.

18 MR. MC KINNY: Sorry. Good morning, Madam
19 Chairman and members of the Board. I'm pleased to be
20 here. I'm Jim McKinny, Program Manager for the
21 Alternative and Renewable Fuel and Vehicle Technology
22 Program at the California Energy Commission.

23 I'm here today to express the Energy Commission's
24 support for the for the recommendations contained in the
25 sustainable freight discussion draft document. We think

1 ARB staff has done an excellent job of providing the
2 background information and rationale for the process needed
3 to reduce the carbon and pollutant emissions from
4 California's immense freight transport sector.

5 The Energy Commission is examining the state of
6 the technologies that will be needed to reach a zero or
7 near zero freight transport sector. We did this most
8 recently in our 2014 integrated energy policy report under
9 the policy guidance of Commissioner Janea Scott. We agree
10 that a mix of incentives for ZEV and near ZEV technologies
11 combined with enhanced inspection of regulatory standards
12 will be key to fostering the scale of change needed to
13 meet the state's air quality and carbon reduction goals.

14 We also appreciate the efforts to streamline the
15 current certification process for new engines that is
16 highlighted in truck action number two. Through our AB 8
17 funding program, the Energy Commission is helping to
18 help to finance the foundational technology to bring
19 electric drive, fuel cell electric drive, and low NOx
20 natural gas trucks to commercial maturity. To date, we
21 have invested \$190 million in advanced technology truck
22 and bus demonstrations, manufacturing, and deployment.
23 And this is nearly one third of the \$580 million we've
24 invested through our fund thus far.

25 There is tremendous work to be done by California

1 government and our innovative private sector technology
2 developers to meet the carbon and air quality goals before
3 us. We look forward to collaborating with the Air Board
4 staff and other State agencies during the next steps of
5 development for the California sustainable freight
6 strategy. Thank you.

7 CHAIRPERSON NICHOLS: Thank you. Thanks to the
8 Energy Commission for your ongoing partnership on all of
9 these programs.

10 Okay. We have a moment or two for questions
11 before we call on the witnesses. We do have I believe 27
12 people who have signed up to speak on this item, and we
13 should talk about how we're going to handle the timing.

14 BOARD MEMBER GIOIA: I just had a question. Do
15 you want to hold most of the comments until afterwards or
16 do you want to do questions now?

17 CHAIRPERSON NICHOLS: I'm sorry. I had
18 discussed at the beginning the idea we would take a break
19 after the presentations, have lunch, and come back.
20 However, we have a lot of people here who are waiting to
21 speak. I think we might as well just go through the list.
22 I think that seems like a more efficient --

23 BOARD MEMBER GIOIA: I'll hold my questions after
24 the comments. That's fine.

25 CHAIRPERSON NICHOLS: Okay. Either way. I

1 think people are ready to go. We'll start with the
2 witnesses then, beginning with Henry Hogo from the South
3 Coast Air Quality Management District, always in the
4 number one position. I don't know how he does it, but he
5 gets here early.

6 MR. HOGO: Thank you, Madam Chair, members of the
7 Board. Henry Hogo, Assistant Deputy Executive Officer at
8 the South Coast Air Quality Management District.

9 First of all, I want to express the AQMD staff's
10 appreciation for our involvement with your staff on the
11 discussions of the development of the draft document. And
12 also your staff has done a good job in preparing this
13 document for public comment.

14 This sustainable freight strategy is the most
15 critical component in the development of the next round of
16 mobile source strategies to meet federal air quality
17 standards for the South Coast air basin. As such, it is
18 vitally important that the sustainable freight strategy be
19 as aggressive as possible, given that close to 40 percent
20 of the South Coast region's air quality problem is due to
21 NOx emissions from the freight movement sector. And the
22 region still needs to demonstrate attainment of the ozone
23 air quality standard in 2022 and 2023. So we do have this
24 near-term need to meet air quality standards.

25 While we appreciate the identified actions in

1 immediate and near-term time frame, especially for
2 oceangoing vessels and locomotives, we believe that the
3 set of proposed actions will not be sufficient to meet the
4 emission reductions commitment in the current ozone State
5 Implementation Plan for 2023.

6 Let me emphasis this point. The current proposed
7 actions will not be sufficient to obtain clean air
8 standards by the federally mandated time lines.

9 The good news is that some of the identified
10 actions can be more aggressive in terms of schedule and
11 level of emission reductions. For example, the draft
12 document calls for new on-road heavy-duty engine NOx
13 emissions standard to be adopted by US EPA. If US EPA
14 does not proceed with promulgating new emissions
15 standards, ARB will adopt the California standard in 2018.
16 We believe that this time frame is too lengthy given that
17 the request to US EPA will begin this year, waiting almost
18 two and a half years to see whether US EPA will adopt the
19 standard is simply too long. We believe this time frame
20 must be shortened to no more than one year with ARB
21 actions beginning immediately in parallel to the request
22 to EPA.

23 We strongly believe that zero and near zero
24 emission on-road heavy-duty trucks will be commercialized
25 in the next few years. As such, having a new lower NOx

1 emission engine standard in place will help commercialize
2 such engines in the near term.

3 While we strongly support the proposed actions
4 for locomotives, which are critically needed to further
5 reduce locomotive emissions, we believe that ARB's
6 commitment in the current ozone SIP to have a substantial
7 number of Tier 4 locomotives operating in California
8 should be addressed in the sustainable freight strategy.

9 In closing, we do look forward to working with
10 staff on the sustainable straight strategy. But we're
11 also working with staff on the 2016 AQMP. As such, we
12 believe that any actions identified in the 2016 AQMP
13 process should be reflected in the sustainable straight
14 strategy. We would ask that in the adopting resolution
15 before you that you direct staff to have that. Thank you.

16 CHAIRPERSON NICHOLS: Thank you.

17 Thanks to the miracle of modern technology and
18 the fact the building has upgraded its audio visual system
19 in this room, we knew have projected behind us in very
20 large type the witness list. So everybody can see where
21 they are on the list and hopefully just move up to your
22 position in time so we don't have to spend a lot of time
23 calling your name. Thank you.

24 MR. CLAY: I guess it's good morning. Good
25 morning, Madam Chair, Board members. Jon Clay on behalf

1 of the port of San Diego.

2 First off, like to thank the CARB staff for
3 working with the port of San Diego and listening to their
4 concerns and issues. The port supports the CARB strategy
5 of coordinating to a modern freight system looking at both
6 a near zero and zero emission strategy.

7 Since the port submitted written comments, I'll
8 hit the highlights, giving the timing. One of the key
9 issues for us is trying to consider regional differences
10 in air quality and the types of ports you're going to be
11 looking at. From the port of San Diego perspective, we're
12 a smaller port. We deal with niche type products in
13 determines of bulk and freight bulk. We are very
14 different in terms of when you look at the big
15 containerized ports in California.

16 Building on this, we also like to see some type
17 of regional distribution of funding to help ensure that
18 all sectors of the goods movement have opportunities to
19 receive funding. We also believe that funding as it goes
20 with this strategy should also go through some of the
21 existing programs, such as the Carl Moyer and AQIP.

22 On the area of electrification, some things to
23 consider from the port is noticed in this as we look at
24 this in the long-term strategy is there is a need for some
25 sort of standardization on electrification strategies,

1 both in terms of the State and feds. We think that having
2 someone trying to coordinate that would be helpful.

3 We also feel that there is some need on rate
4 structures. As you move to electrification areas, such as
5 the port of San Diego have had challenges with the rate
6 structures or cost of electricity. We think that's
7 another area where CARB may be helpful, maybe not. But
8 it's something that we struggle with as a port.

9 Finally, just going back to stressing the
10 differences of hope there is -- when you look at ports,
11 you don't look at this as ports across the board as
12 one-size-fits-all. Because San Diego is a much smaller,
13 much more of a niche type port, we hope when we develop
14 the strategy you're looking at those types of differences.

15 And finally, also looking at developing some
16 performance metrics to help measure what the existing
17 current status is of emissions and then use that to kind
18 of make adjusted goals for those types of ports going into
19 the future.

20 With that, I'll end my remarks. Thank you.

21 CHAIRPERSON NICHOLS: Thank you. Good morning,
22 Chair Nichols and members of the Board.

23 MR. MARTINEZ: Good morning, Chairman Nichols and
24 members of the Board.

25 My name is Adrian Martinez, and I'm an attorney

1 with Earth Justice. Earth Justice is one of the members
2 of the California Cleaner Freight Coalition. In addition,
3 with do a lot of work on air quality issues in the San
4 Joaquin Valley and Southern California.

5 Overall, I think the evidence is clear. The
6 draft report presents a lot of information on health, air
7 quality, and greenhouse gas. I'm going to let my
8 colleagues talk a lot about the health impacts, including
9 the cancer risks and other impacts like that.

10 I want to focus my comments on the air quality
11 part of this discussion. Dr. Sperling highlighted a lot
12 of the progress that's been made to date, and a lot of
13 that progress is due to regulations and other activities
14 done by this Air Board, some of the most landmark
15 regulations to date addressing freight have come from this
16 agency. And I want to applaud that. I think what this
17 report highlights is more needs to be done.

18 I'm glad we moved from the question of if we need
19 to transform this industry to zero tailpipe technologies
20 everywhere we can to how and when. I think that's a
21 significant change in the discussion that's happened over
22 the last year and a half. And I applaud the staff of the
23 Air Board in addition to the Board for pushing that
24 discussion.

25 There was some discussion about rules and not

1 changing the rules of the game. There's some rules that
2 have been on the books since the 70s. There are ozone
3 standards that we failed to meet in the South Coast and in
4 the San Joaquin Valley. We need to shift the way we think
5 about this transportation investment, which I'll remind
6 you that even though there's billions that are going to be
7 spent into the future, there are billions being spent now
8 on the freight system. Very large projects that are
9 either in construction or in the environmental permitting
10 process. Prime example, the 710 project in southern
11 California, the World Logistic Center in the Inland
12 Empire, the largest master planned warehouse in the world.

13 These ozone standards are important to meet. We
14 need deep reductions in NOx emissions to meet them. And I
15 know we're focused on the deadlines that are out in 2030.
16 There are some more urgent deadlines in 2013 where we need
17 to figure out how to get 150 tons per day of NOx to meet
18 the one-hour ozone standard. That's not too long from
19 now.

20 We found out that freight is responsible for a
21 lot of the NOx. I think it's we have to focus. We
22 support the near-term regulatory measures. We think
23 regulation are an important part of it. Incentives can
24 only get us so far. You need the regulations combined
25 with crafted incentives to help facilitate early

1 compliance and technology development. We look forward to
2 working with staff further on this issue. And thank you
3 for your time.

4 CHAIRPERSON NICHOLS: Thank you.

5 MS. WYENN: Good morning. My name is Morgan
6 Wyenn. I'm an attorney with the Natural Resources Defense
7 Council, the NRDC. I'm also a part of the California
8 Cleaner Freight Coalition, the CCFC, and the letter that
9 the coalition submitted yesterday.

10 I want to touch on three things in my three
11 minutes: Drayage trucks, enforcement, and CARB
12 involvement in freight projects. We strongly encourage
13 the Board to direct staff to add a near-term measure for
14 regulating drayage trucks. I work with the ports all the
15 time and talk to them about zero emission trucks all the
16 time. And I cannot emphasize enough how incredibly
17 important it is that CARB set a regulatory deadline for
18 the turnover to zero emission trucks for drayage. A firm
19 deadline that that will generate the focus effort we need
20 to make zero emission trucks a reality.

21 Second, we are so happy to see the increased
22 enforcement at ports and other facilities. The ports have
23 been looking to CARB for leadership on this, and so we're
24 just so thrilled that CARB included this as a priority.

25 Third, we desperately need CARB to get more

1 involved in this CEQA process, like my colleague Adrian
2 just mentioned, for large freight projects. Several huge
3 projects are moving forward that lock us into more diesel
4 and air pollution and are frankly missed opportunities to
5 clean out the freight industry. Communities around the
6 state really need CARB to weigh in. For projects in the
7 South Coast where I do most of my work, AQMD often does a
8 great job weighing in, but we still need CARB to portray
9 the state perspective. From the port of L.A. plans to
10 build a new rail yard right adjacent to schools, which
11 flies in the face of all of CARB's work studying and doing
12 guidance about the harms of rail yards on schools, to the
13 expansion of 710. These are just examples. CARB has such
14 a significant expertise that we need applied to these
15 projects. Otherwise, they will continue to undermine and
16 undercut all the work that CARB wants to do as laid out in
17 this great freight strategy document.

18 Lastly, I just want to thank the staff and the
19 Board for all of your hard work and continued effort on
20 this. We are so excited that it is finally moving
21 forward. And I look forward to continuing to work with
22 you closely to make this happen and protect communities
23 from the toxic pollution from freight industry. Thank
24 you.

25 CHAIRPERSON NICHOLS: Thank you.

1 MR. BARBOSE: Good afternoon, Chairman Nichols
2 and Board members. My name is Jason Barbose with the
3 Union of Concerned Scientists.

4 We've been working on clean vehicle technologies
5 here for many years and also members of the California
6 Cleaner Freight Coalition. And on behalf of our 73,000
7 supporters across the state, I want to thank ARB for this
8 draft document and for staff's hard work on it.

9 As my colleague Adrian noted moments ago, it is
10 noteworthy that we all essentially agree that in order to
11 meet health-based air quality standards and to prevent the
12 worst consequence of climate change, California must begin
13 planning a modernization program now that truly transforms
14 California's freight system over the next 15 to 20 years.
15 And UCS believes this draft document is a solid first
16 step. In particular, I want to highlight we whole
17 heartedly support the commitment ARB is making to pair
18 ongoing support for technology deployment through
19 incentives with near-term regulatory measures to require
20 deployment of zero emission technologies.

21 We're very pleased with ARB's commitment to
22 immediately increase enforcement near freight hubs. We
23 are very happy with the commitment to collaboration with
24 the other State agencies and appreciate the testimony from
25 the other agencies today. And we look forward to seeing

1 tangible progress on the effort in the months ahead.

2 And then I also note we're supportive of have
3 ARB's interest in pursuing a facility based cap on
4 emissions because equipment specific measures alone may be
5 insufficient to interpret healthy air around communities
6 adjacent to freight facilities.

7 So a couple of suggestions to offer today. One,
8 I will piggy-back on my colleague Morgan who just spoke to
9 say in terms of near-term measures, we suggest that ARB
10 include measures to acquire zero emission technology for
11 ground support equipment at airports, cargo handling
12 equipment, and drayage trucks. And for drayage trucks in
13 particular, we believe it's important for ARB to signal
14 that there will be regulatory activity as a follow-on of
15 the significant investment the state is already making in
16 demonstrating zero emission drayage truck technologies.
17 This will help provide the investment certainty, both for
18 technology providers as well as drayage truck operators
19 and certainly critical for the communities that surround
20 freight hubs.

21 Lastly, very briefly, we strongly support ARB's
22 intention to gather data on freight activity. And while
23 imperfect data is certainly no reason to delay action,
24 it's undeniable that better information will allow us to
25 sort of better hone our actions and to better evaluate our

1 progress. But the draft is not explicit about how ARB
2 plans to collect freight data, and we suggest the plan B
3 explicit it will be a requirement that ARB makes of
4 freight facilities.

5 So with that, we're grateful for the progress
6 today in delivering this draft and look forward to
7 continued collaboration. Thank you.

8 MS. HOLMES-GEN: Good afternoon. Bonnie
9 Holmes-Gen with the American Lung Association of
10 California.

11 I'm pleased to be here on behalf of the Lung
12 Association and also as a part of the Cleaner Freight
13 Coalition. And this is great timing to discuss the
14 sustainable freight strategies since the Lung Association
15 will be releasing our 16th State of the Air report next
16 week. And we'll certainly be emphasizing the importance
17 of this effort as we talk about clean air challenges and
18 solutions, the transformation of the freight sector is
19 always at the top of the list. And we're glad to be able
20 to talk about this effort and moving forward.

21 We're deeply concerned about the freight sector
22 because of the public health impacts, the rate the
23 reductions in emissions are critical, not only to achieve
24 our public health and air -- reductions in freight
25 emissions are critical not only to achieve our regional

1 air quality goals and our state goals, but to deal with
2 the daily public health emergencies that people are
3 suffering. And I know that you are familiar with the
4 tremendous local public health impacts. Freight system
5 emissions in California result in over 2,000 incidents of
6 premature mortality, costing over 20 billion per year.
7 The soot emissions from freight contribute to asthma
8 attacks and lung illnesses, heart attacks, strokes and
9 lung cancer. Of course, lung cancer is a big focus of the
10 Lung Association, especially over the last few years.

11 We believe that the ARB has done a lot with
12 previous rolls and incentive funding we appreciate all
13 those efforts, but clearly bold leadership is needed now.
14 I think the sustainable freight strategy represents the
15 kind of bold leadership that we need to go forward.

16 We believe it's absolutely critical to move to
17 zero emissions as quickly as possible, and we greatly
18 appreciate your commitment to that goal for all categories
19 of freight. And we support the near-term measures that
20 you have in the plan as well as the longer-term measures.
21 We do think there's going to be some need to strengthen
22 and expand the proposals in the plan. We're glad you're
23 focusing on strengthening enforcement. And again, a long
24 list of near-term measures. But we do see a need for
25 additional measures, such as the zero emission regulatory

1 program for heavy duty vehicles. We think it can make
2 faster progress in that area.

3 We have to have a strong combination of the
4 incentive programs and rules and regulations. We look
5 forward to making sure that there is a strong framework
6 that includes both strong components of both.

7 Leadership on this freight issue is extremely
8 difficult, as you know, requires leadership and
9 coordination across many agencies. We're so pleased to
10 see the work that you've done in bringing agencies to the
11 table and look forward to continuing to work with you as
12 you work with these agencies. And this plan can have
13 dramatic impacts on lung health. So thank you. Let's
14 keep moving forward. We're strongly committed to this.

15 CHAIRPERSON NICHOLS: Thanks.

16 MR. ERVICE: Good morning, Chairman Nichols and
17 members of the Board. My name is Joel Ervice. I'm the
18 Associate Director at Regional Asthma Management and
19 Prevention, also a member of the California Cleaner
20 Freight Coalition.

21 The mission of the coalition is to create
22 transformational changes to the freight system to protect
23 the public's health, clean the environment, and promote
24 social justice and equity. Our 28 groups and public
25 health, environmental, and environmental justice

1 organizations from northern, southern, and central
2 California.

3 As the draft noted, the health impacts from
4 freight of real and significant. Health effects from
5 PM2.5 emissions include over 2,000 deaths, 300
6 hospitalizations, nearly 1,000 emergency room visits
7 related to respiratory problems like asthma. That's just
8 from particulate matter. When ozone effects are
9 calculated later, the number will be higher.

10 The residents around freight hubs suffer
11 disproportionately from breathing this toxic air. These
12 are the same communities that have elevated rates of
13 asthma hospitalizations and ER visits. These communities
14 are also more likely to be low income communities of color.

15 With these communities in mind, I want to start
16 by applauding staff for producing a draft with much
17 greater detail than previous materials. It's great to see
18 the inclusion of incentives, near-term regulatory
19 measures, and enhanced enforcement of existing
20 regulations. I'm also supportive of the potential of
21 facilities based emissions cap to meet pollution reduction
22 goals. I look forward to working with staff on the
23 details.

24 In terms of making the document and the overall
25 strategy stronger, I have a couple of different

1 suggestions. First, revenues. While the draft mentions
2 current funding streams that can help transform the
3 freight system, it should also explore new funding
4 revenues to accelerate that transformation. There are
5 many options available, including tolls, container fees,
6 and other strategies.

7 Second, near term regulations for rail yards.
8 While I strongly support the CARB petition to EPA to move
9 forward on Tier five rulemaking for locomotives, more can
10 and should be done. The draft unfortunately does not
11 deliver the type of relief needed for rail yard
12 communities. It would be helpful for CARB to identify
13 rail yards sources the agency can regulate and rail yards.

14 Third, collaboration. The draft closes by noting
15 California has agencies that are involved in nearly every
16 aspect of the freight system and that collaboration
17 between all of those agencies will be essential.

18 I agree and urge the Board to do what it can and
19 Governor Brown and other agencies to ensure everyone is
20 fully engaged first and foremost to a zero emission
21 freight system. It was great to hear the testimony from
22 other agencies out here today. All of these agencies
23 should go bold and be aggressive with its vision for
24 cleaning up freight. The health and well being of our
25 communities depends on it. Thank you for your time.

1 MR. MAGAVERN: Good afternoon. Bill Magavern
2 with the Coalition for Clean Air and also the California
3 Cleaner Freight Coalition.

4 And I want to thank both the staff and the Board
5 for the time that you've spent with us on this important
6 issue and also the time that you are going to be spending
7 with us on it in the future, because clearly though today
8 we've reached a real milestone in terms of taking action
9 to clean up the freight system. There is a lot more that
10 we need to do. And as you have recognized, the broader
11 freight strategy that we all know is needed is still in
12 the future. And so it's disappointing to us that that is
13 once again being delayed, but we agree with both ARB and
14 the other agency speakers that that requires a coordinated
15 effort of all the agencies within the administration. So
16 we understand the necessity of the delay, despite being
17 disappointed by it.

18 We won't really be successful until we have
19 aligned transportation planning and funding in this state
20 with the imperatives of reducing emissions that are
21 damaging our health and our climate. And we won't be
22 successful until we see local projects that a number of my
23 colleagues have talked about actually being brought into
24 line with those imperatives. So hasn't happened yet. I
25 think it's important to recognize that the transformation

1 in our transportation agencies that is beginning to be
2 exemplified by the leadership of Kate White and Steve
3 Cliff is just started and has not really taken hold
4 throughout the large octopus that is Caltrans, has not
5 made it down to the district level.

6 And it's really an environmental justice
7 imperative that that happened because, as we saw in the
8 video, the benefits of goods movement really accrue to
9 everyone in this state and throughout most of the country,
10 but the burdens are not proportionately spread out. They
11 actually fall disproportionately on low income communities
12 of color.

13 But on to what we love about this draft in front
14 of you today, the actions on enforcement are very well
15 thought out. The attention to making sure that we're
16 getting the performance from diesel particulate filters
17 that we want to get, making sure we're getting those PM
18 reductions. We also agree that although buses and
19 shuttles carry people and not goods, that they can be an
20 important way to advance technologies that can spread
21 throughout the heavy-duty sector.

22 And we support the carrots as well as the sticks.
23 And my organization is one of many that are supporting
24 significant increase in funding from the AB 32 revenues
25 for cleaner vehicles, both heavy and light duty.

1 So in conclusion, we support the resolution and
2 look forward to working with you both on these immediate
3 and near term actions and also on the longer term effort.
4 Thank you.

5 CHAIRPERSON NICHOLS: Thank you. I believe you
6 were the cleanup speaker for that group. Okay. Thanks.

7 MS. MENDOZA: Good morning. Jerilyn Lopez
8 Mendoza on behalf the Southern California Gas Company.

9 Wanted to say thank you all for the opportunity
10 to speak and also want to say thank you for the team at
11 ARB that has been working on this very rigorous document.
12 It's much different from the draft that we saw last
13 September. And SoCal Gas recognizes a lot of work has
14 gone into it. I want to thank the team at ARB. I know
15 there are several of you working on that. I want to say
16 thank you for your hard work.

17 I also had an opportunity before today to sit
18 down with the some members of the team from the natural
19 gas industry to talk about some of our immediate responses
20 to the document.

21 So we have already begun that process of
22 stakeholder engagement. I wanted to say thank you to them
23 for involving us in the earlier meeting.

24 A few things we're excited about, in the near
25 term options as it relates to oceangoing vessels and

1 locomotives. Liquefied natural gas is mentioned as a
2 technology and a fuel source that can dramatically reduce
3 emissions, particularly particulate and NOx and SOX in the
4 short term.

5 We're very excited to see that as an
6 off-the-shelf technology that can be utilized immediately
7 in the near term to get all of us to closer places in
8 terms of cleaner air.

9 Secondly, just wanted to recognize -- I did have
10 a couple of questions. And one was at the top of page 27
11 in the document -- that is something I already raised with
12 Heather -- just above letter D there is a full paragraph
13 that redefines what a near zero emission truck is, which
14 is that providing up to 90 percent reductions in in-use
15 NOx emission from today's trucks operating in California.

16 And the reason I wanted to underscore that today
17 is because that's different from the low NOx definition
18 that ARB has been using in the option of low NOx standard.

19 And just for clarity's purposes, I raised this
20 with Heather when we met, this is a different definition.
21 I'm not sure how ARB is going to define in-use NOx
22 emissions from today's trucks so that we can measure a 90
23 percent reduction.

24 So that's something I wanted to bring to the
25 Board's attention that muddies the waters a little bit in

1 terms of how we're going to define a low NOx engine.

2 And then secondly, elsewhere in the document -- I
3 don't know that page number -- there is a reference to
4 facilitating the certification process to make it easier
5 and faster for lower polluting engines to get to market.

6 And I just want to say that I hope that that
7 would apply to natural gas engines that are trying to
8 reach the low NOx standard, both optional and if the board
9 goes to a mandatory one. I hope that certification
10 facilitation would also apply to those trucks. So thank
11 you very much. I appreciate the opportunity to speak.

12 MR. SERFASS: Chairman Nichols, Board members, I
13 appreciate the chance to speak.

14 I'm Jeff Serfass, Managing Director of the
15 California Hydrogen Business Counsel. We represent the
16 array of markets and applications that fuel cells, zero
17 emission technology can present in a variety of
18 applications and market sectors.

19 With the auto OEM, industry gas companies,
20 eletrolizer companies, fuel cell companies, they're all
21 engaged with us. We want to be a part of working with
22 you.

23 We applaud ARB's plans, goals of work on the
24 sustainable freight strategy. We think that our industry
25 plays a very important role in delivering the results

1 desired and the fact we can deliver many of the zero
2 emission vehicles results desired. That's the good news.

3 In fact, in the goods movement area, forklift
4 trucks are a great example of a short-term success and an
5 element of the short-term strategy for ARB.

6 The kind of the bad news is on the heavy duty
7 trucks, the equipment is not developed today using fuel
8 cells with hydrogen as a fuel. There is work that needs
9 to be done. There's work that needs to be done by the
10 industry and investments that need to be made by the state
11 and, indeed, the federal government.

12 We think this element of the strategy builds
13 nicely on the investment the State is making already in
14 doing emission light-duty vehicles and the building of
15 stations and the mandates required. We think that in the
16 sustainable freight area, there is a similar combination
17 of strategy elements that need to take place, funding,
18 investments, incentives, and indeed regulations are part
19 of that.

20 We look forward to being an industry-wide
21 coalition that works with ARB. We think with hydrogen
22 energy there is an opportunity to bridge some of the silos
23 that we often encounter in energy sectors. The silos that
24 can be bridged include energy storage, grid management,
25 fueling infrastructure, and we think one ought to look for

1 that, of course, in bridging between light duty and heavy
2 duty strategies.

3 So we are undertaking some of initiatives this
4 year to address here the sustainable freight interest. We
5 are forming a goods movement, what we call a sector action
6 group within our organization. We are having on July 29th
7 a renewable energy pathways to hydrogen workshop. And on
8 July 30, a power to gas and hydrogen energy storage
9 workshop. And we are also planning to have workshops to
10 address the opportunity to build the business in concert
11 with GO-Biz objectives to build the jobs and the
12 appointment base for both manufacturing and the service
13 components of this industry. So I thank you for the
14 opportunity to speak with you.

15 CHAIRPERSON NICHOLS: We'll hear one more
16 speaker, and then we're going to take a ten-minute break
17 just for stretching and other necessary activity and then
18 come back and resume.

19 MR. TUNNELL: I made it just under the gun.
20 Thank you, Madam Chairman, members of the Board.

21 I would first start like to start out thanking
22 staff for being available to meet with -- I'm Mike Tunnell
23 with the American Trucking Association. Staff has met
24 with us and many of our members so speak for that.

25 We submitted joint comments with the California

1 Trucking Association which includes a number of specific
2 suggestions on the draft document. And I would just
3 suggest -- I really don't want to go into them in too much
4 detail at this point, but I would suggest hopefully you
5 have a chance to review them and consider them.

6 Basically, I have two requests for Board
7 direction today. The first involves resources. As you
8 know, it's a very extensive far reaching plan. There is
9 roughly 20 measures which impact the trucking industry in
10 this plan. And so as you can imagine, this will be a
11 significant resource commitment on both the part of
12 private industry and your agency as well.

13 So our concern really involves with a number of
14 existing measures in place and time line of moving
15 forward. There is a resource commitment to those measures
16 now that need to be addressed as well ongoing resource
17 commitment for these future measures. So what we would
18 like to see is a resource allocation plan associated with
19 this draft so that we have a better sense that -- a good
20 example would be like PM filters, the truck and bus
21 regulation, so you know, is passed and now we're gaining
22 to zero emission trucks and a more -- some may feel that's
23 a more fancier approach. So I just don't want to see the
24 existing rules left in the dust on this. I think a
25 resource allocation plan would be very helpful to evaluate

1 this.

2 The second request involves technology. Numerous
3 questions revolving around the status and potential of the
4 technology, and the tech assessments are going to provide
5 more insight into this. There was a discussion
6 yesterday -- I had a meeting a symposium put on by your
7 agency that looked at this tech assessment. And it
8 basically looked at a literature review of the cost of
9 technology and the pay back was divided by the cost of
10 fuel. Fairly simple. What that assessment doesn't
11 include are taxes. We all pay taxes on equipment we
12 purchase. It doesn't include any assumptions on repair
13 costs, maintenance costs, or down time associated with it.

14 So as these are going to be very important marker
15 going forward in the technology assessment, we'd like to
16 ensure that they represent real situations which are all
17 these factors. So I would just ask the Board to ensure
18 that the credible tech assessments are included as part of
19 this. And from what I heard yesterday, in wrapping up, it
20 doesn't sound like all the factors are being included that
21 need to be included in these assessments. So thank you
22 very much.

23 CHAIRPERSON NICHOLS: Thank you. I'm sure we
24 have a lot of time to continue to discuss these issues.
25 We'll take a break and come back at 20 of 1:00.

1 (Whereupon a recess was taken.)

2 MR. SHIMODA: Thank you, Chairman Nichols and
3 members of the Board. Chris Shimoda, California Trucking
4 Association.

5 And having actually read all 85 pages of staff's
6 document, I'd like to first thank the staff for their hard
7 work in getting this prepared and also for the recognition
8 of the monumental challenge of the task at hand. That
9 really came through with the document. Thank you to
10 staff.

11 To paraphrase the discussion document, success
12 will require facing economic reality at the same time we
13 pursue our economic goals. I think Kish from Go-Biz
14 stated that as well. Put simply, at this moment in time,
15 zero emissions truck technologies cost more and do less.
16 And it's this fact that's at the core of the challenge
17 that lies ahead.

18 On the proposed zero emission refrigeration
19 trailer rule and the last delivery rule proposed in the
20 discussion draft, we do have some concerns which we expect
21 to discuss with both the staff and the Board in the coming
22 months.

23 We'd like to support your call for national NOx
24 and greenhouse gas standards which the cost effective,
25 technically feasible, and consider engine reliable

1 durability.

2 With the exception of what we think is a
3 misplaced focus singling out larger fleets, we're also
4 supportive of your staff's call for increased enforcement
5 of existing rules. As you know, CTA has been up before
6 the Board on many occasions talking about the need for a
7 level playing field. And we just like to temp our
8 expectations a little bit about the impact the proposed
9 changes in the discussion draft to enforcement will have.
10 We really do believe with the limited resources that your
11 agency has, further strategies are going to need to be
12 pursued to really get these rules in force in a fair and
13 respective way to the folks who have invested in the rule.
14 We will continue those discussions with your staff.

15 And speaking from the very difficult experience
16 that I think both your agency and our industry has
17 experienced with the truck rules, it's from this that we
18 strongly discourage the Board from moving forward on the
19 proposed facility emission cap concept. Creating what can
20 be thousands of individual cap facilities each with
21 different requirements would be a huge step in the wrong
22 direction in our opinion and a doubling down on some of
23 the missteps of the past.

24 So lastly, we would just like to remind the
25 Board, the trucking strategic has put a lot of skin in the

1 game to get the emission reductions from the previous
2 presentation today to the tune of about a billion dollars
3 annually. And we have more than a fair share of
4 experience working through the regulations with your
5 agency. And so we hope to be in communication with each
6 of you on the Board in the coming weeks and months to
7 further discuss this document, work through our concerns,
8 and would like to thank you for your time today.

9 MR. EDGAR: Chair Nichols and Board members, good
10 afternoon. I'm Sean Edgar. I'm the director of
11 CleanFleets.net. I have a few focused comments for you.

12 First, pertaining to 24 years of my history of
13 working on CalEPA regulated facilities, whether they be
14 the federal labs administered by my alma mater, University
15 of California or solid waste facilities or gasoline
16 dispensing facilities, I've had the privilege of working
17 on those facilities in an environmental capacity over the
18 last 24 years. And I'll echo some of the comments that
19 CTA mentioned relative to moving cautiously.

20 I'll just question on the metrics and the value
21 of going down the path where we tried to develop facility
22 individual emissions caps. That are a few items in there
23 relating to the who, how, when, and what we would be
24 measuring if we were to look at facility emissions caps.
25 Most facilities in California I believe have gone through

1 CEQA and have already had impacts mitigated and whatnot.
2 It's laudable that you talk about near-term enforcement.
3 And the staff is to be credited for that proposal to
4 increase in the near term enforcement around key
5 facilities. I would question the metrics and especially
6 with the statewide truck and bus regulation which I had
7 the privilege of working with the Board for the last eight
8 years in the development and implementation.

9 Now that that is deploying the cleanest vehicles
10 throughout California, I'm not sure what we're going to
11 measure and how we're going to measure it. So similar to
12 the comments of ATA just advising spending staff time
13 wisely. And I'm not sure what the facility emission cap
14 development will give us but I'll look forward to your
15 staff's next iteration to discuss more about the metrics.

16 Moving on to the fleet side of the equation, I
17 had the opportunity over the last 15 years to work on
18 every internal combustion engine regulation this Board has
19 done. The theme, going back to my first testimony from
20 2000, industry really needs technology that works and a
21 way to pay for it. So if we have technology that works
22 and a way to pay for it, clean flights advises up to 300
23 fleets and publicly traded fortune 500 companies and those
24 companies all rely on needing to serve their customer. So
25 if the technology works and we have a mechanism to pay for

1 it much more costly technology, absolutely there is a way
2 to do that. So we share your Executive Officer's vision
3 of trying to chose the best path and the levers to use, in
4 your terminology. The document notes near zero
5 technologies, and I think SoCal Gas has struggled, as we
6 have, over the issue of what is near zero.

7 We have a couple things that I'll punctuate,
8 positives in the document. Integrated approach to
9 renewable natural gas, fantastic. This is my third
10 appearance to five months talking to you about renewable
11 natural gas. I'm encouraged staff is looking for an
12 integrated approach.

13 I would wrap up by saying local projects and
14 keeping true to the statutory requirements to use existing
15 technologies on heavy-duty trucks is going to be very
16 important as we move forward. Thank you.

17 MR. ALLEN: Good afternoon, Madam Chair and
18 members of the Board. I'm Matthew Allen, Director of
19 Governmental Affairs for Western Growers Association.

20 We do appreciate the opportunity to provide
21 comments on this discussion draft as we do have some
22 initial concerns with the draft as currently proposed,
23 specifically regarding -- the concerns we have regarding
24 the overall functioning and cost effectiveness of
25 California's freight systems. Our members and workers

1 provide half the nation's fresh fruits, vegetables and
2 tree nuts and half of the nation's organic produce. This
3 fruit is transported a number of times before it is able
4 to be consumed by the customers. And it's really
5 important to note that our growers are not the price
6 makers. Their price is really dictated to them. It's not
7 easy to shift cost along to increase food prices. That's
8 really kind of the nuts and bolts of much of our concern.

9 Our continuing a review of the discussion draft,
10 but I would just like to briefly list a few items that we
11 would like to discuss further with the Board and staff.
12 They include the facility's emission cap, transportation
13 refrigeration units, use of large spark Ignition
14 equipment, the opacity limits, and the renewable natural
15 gas standard. We will remain engaged in the process and
16 look forward to discussing this initiative with the staff
17 and Board members into the future. Thank you.

18 MS. LINDER: Good afternoon. My name is Alison
19 Linder. I'm with the Southern California Association of
20 Governments. I've already given you a letter this morning
21 that represents the SCAG region, including our six
22 transportation commissions and our three major ports, Los
23 Angeles, Long Beach, and Port of Hueneme.

24 And I want to thank you for the opportunity to
25 comment and share our region's perspective on the recent

1 released drafts. Our letter goes into a lot more detail,
2 but I just want to emphasize three major points today.

3 First, I want to emphasize that SCAG strongly
4 supports the sentiment and the importance of the
5 sustainable freight system and clean air. It's consistent
6 with our adopted 2012 TPSES. We have a strong commitment
7 to reduce emissions from transportation sources. And we
8 believe that the broad deployment of zero and near zero
9 emission technologies is an important part of the
10 solution.

11 Similarly, clean transportation strategies are
12 critical to achieve air quality attainment, meet
13 greenhouse gas reduction targets, and improve the health
14 of local communities.

15 New technologies also have the opportunity to
16 create simultaneous economic benefits, for example, a
17 reduced fuel and maintenance costs. And it is critical
18 that as we implement these new technologies they remain
19 feasible and cost effective.

20 Second, I want to emphasize the importance of
21 continued collaboration with industry. We really
22 appreciate CARB's outreach to date, and we want to
23 encourage further collaboration and inclusion of the
24 industry perspectives.

25 As you mentioned in your document, the freight

1 system is very complex with a lot of moving pieces and
2 players and markets. And we don't want anything that
3 comes forward to interfere with productivity or have
4 negative economic consequences. A lot of people in our
5 region depend on this industry for their livelihoods. We
6 want to prioritize strategies that have both economic and
7 environmental benefits.

8 And finally, I want to emphasize the importance
9 of continued engagement with federal, local, and regional
10 jurisdictions. California can't stand alone in solving
11 these problems and we need to really solicit greater
12 federal participation as you noted as far as regulation as
13 well as funding.

14 Finally, I would say in southern California, we
15 have done a lot of date and we have stronger relationships
16 with industry already. And we want to continue building
17 on these partnerships and create solutions that are both
18 economically and environmentally viable.

19 BOARD MEMBER SPERLING: Could I ask a question?

20 We really do read your testimony. And so there
21 is a statement in it where you said it would not seem
22 appropriate to include freight-related greenhouse gas
23 reduction as a responsibility of NPOs through the SCS
24 process. Could you elaborate on exactly what you meant by
25 that?

1 MS. LINDER: Sure. It's my understanding that
2 SCS addresses land use. While SCAG does have some
3 authority to recommend land use strategies, we can't
4 necessarily control the locations of freight facilities.

5 Also, I would point out that industry does make
6 kind of calculated decisions of where they want to locate
7 based on market demand, proximity, cost of transportation,
8 cost of land. So we have to work with them to assume
9 they're also currently evaluating the land use decisions
10 and that it's not necessarily the rule of the NPO to
11 require specific.

12 BOARD MEMBER SPERLING: You could say exactly the
13 same thing on passenger transportation, and yet, that is
14 the responsibility. And SCAG has embraced it fairly
15 enthusiastically.

16 MS. LINDER: As far as transit oriented
17 development?

18 BOARD MEMBER SPERLING: Dealing with emissions
19 from passenger transportation, which is intimately tied to
20 land use. Clearly, SCAG doesn't regulate the land use.
21 But SCAG place the role of coordinating and working with
22 the cities and counties to do that. So why would that be
23 different here?

24 MS. LINDER: I think it's a point that requires
25 further clarification. And in reading the document, we do

1 mention tying freight into the SCS. But it was something
2 that we want to work further with you on exactly how that
3 was intended to come across. And we wanted to just point
4 out that we have limited jurisdictions and carrying across
5 that need.

6 We do currently evaluate the VMT of different
7 transportation sources. It's already measured in our
8 plan. Even so, there's challenges of getting the data,
9 validating the data. Oftentimes, the data is actually
10 proprietary.

11 MR. SCHOTT: Madam Chair, Board members, Tim
12 Schott on behalf of the California Association of Port
13 Authorities, which is comprised of state's eleven
14 commercial publicly-owned ports.

15 I want to point out that our ports are very
16 diverse. And we have three large container ports that
17 move upwards of 90 percent of the cargo in and out of
18 California the state manages. Some of our smaller ports
19 are very small and moves significantly less than one
20 percent of the cargo that is managed in the state. So we
21 want to make sure that folks understand the strategy that
22 might apply in with one place may not apply in other
23 places.

24 In general, the ports are extremely proud of the
25 accomplishments we've made over the last decade in terms

1 of emission reductions. I think it's reported more than
2 80 percent in particulate matter reductions, nearly 90
3 percent of our SOX emissions, 50 percent of NOx and
4 significant greenhouse gas reductions I think approaching
5 25 percent. Those accomplishments have been managed in
6 partnership with the Air Resources Board, with our local
7 Air Quality Management Districts, and with our industry
8 partners. And we thank all of them for that.

9 Like to thank ARB staff in particular for the
10 outreach that they conducted as they released this
11 discussion draft and it was very much appreciated be able
12 to have some conversation with them and have some
13 understanding of what the conversation might be going
14 forward.

15 So the accomplishments that we achieved over the
16 last decade have come at very significant costs. I think
17 ARB's own estimates are about five billion dollars for the
18 regulations that have been implemented so far relating to
19 freight. We are in a highly competitive environment, the
20 most competitive environment the ports have seen in my 20
21 year tenure, probably a lot longer than that.

22 So we appreciate the emphasis that ARB and the
23 other state agencies are putting on making sure we are
24 looking at the economy, the infrastructure, and the
25 environment as we go forward with the appropriate

1 sustainable freight strategy.

2 We did submit comments and hope to take a look at
3 those. We would suggest a couple things for an early look
4 anyway. That would be to perhaps emphasize system
5 efficiencies in the early stages of our examination of
6 strategies that might be most effective. It's one of the
7 areas where we can realize true emission reductions and at
8 the same time increase our economic benefits as we go
9 forward with this by reducing congestion and delays and
10 hopefully improving the appropriate infrastructure.

11 We would suggest to expand its own role in
12 helping financially to achieve those three goals of
13 infrastructure improvement, environment stewardship, and
14 economic development. And we think there are appropriate
15 places to look for those revenues coming from the State to
16 help leverage federal, local, and private dollars and also
17 to help offset some of the costs that will be necessary
18 for the environmental compliance. Thank you very much.

19 MR. KENNY: Good morning, Madam Chair, members of
20 the Board. My name is Ryan Kenny. I represent Clean
21 Energy. We are the nation's largest provider of natural
22 gas transportation fuel. We have 150 fueling stations
23 here in California, 65 of which are public. All of those
24 offer renewable natural gas.

25 We do support in concept the sustainable freight

1 initiative, including the discussion draft in the
2 Resolution 1522. The discussion draft is robust and it is
3 a good starting spot but just a starting point. We do
4 believe as the process moves forward, the industry does
5 need market signals that all cost-effective solutions will
6 be considered and that regulatory certainty is vital to
7 our industry.

8 We believe the sustainable freight initiative has
9 a potential to achieve the goals of reductions in NOx,
10 greenhouse gas emissions, and diesel particulate matter,
11 especially in disadvantaged communities in California's
12 most impacted regions of South Coast and the San Joaquin
13 air basins. We do believe alternate fuels will have a
14 great role to play, including natural gas and renewable
15 natural gas, which is the cleanest transportation fuel
16 available.

17 We do fully support the resolution's objectives
18 to incorporate a robust stakeholder process, and we do
19 fully intend to participate.

20 As we move forward, we do view the discussion
21 draft as I mentioned as a starting point. And we do have
22 several outstanding questions, which I included in our
23 comment letter, two of which -- one includes the
24 discussion about renewable natural gas. That will come
25 into play, but in addition to the role of natural gas

1 moving forward.

2 Also ARB does view the optional low NOx emission
3 standard as the default standard. However, final
4 verification of the specific value, whether it's .1, .05,
5 or .02 is needed in order for engine manufacturers to meet
6 ARB's desired standard. So we do offer initial support
7 for the sustainable freight initiative moving forward. We
8 look forward to participating in the process. Thank you.

9 BOARD MEMBER MITCHELL: I have a question of Mr.
10 Kenny. I heard recently there was a recent development in
11 an ongoing container ship that was fueled by natural gas.
12 Do you know anything about that?

13 MR. KENNY: An ongoing --

14 BOARD MEMBER MITCHELL: Container ship that was
15 fueled by natural gas. Oceangoing ship. Do you know
16 about that?

17 MR. KENNY: I'm not familiar with that. We do
18 offer services to locomotive and marine business. A lot
19 of our business is focused on natural gas vehicles,
20 including heavy duty vehicles. I'm not familiar, but I
21 can look into that.

22 BOARD MEMBER MITCHELL: I was wondering whether
23 it's a new development.

24 CHAIRPERSON NICHOLS: We'll have a chance to ask
25 later of from that industry. Thank you.

1 MR. KENNY: Thank you.

2 MS. THOMAS: My name is Taylor Thomas with East
3 Yards Communities for Environmental Justice and the
4 California Cleaner Freight Coalition and a resident of
5 Long Beach. And we submitted formal comment letters on
6 the sustainable freight strategy. I'm not here to go over
7 them line by line with you, as my colleagues have outlined
8 our concerns.

9 I want to underscore the importance of the need
10 for this Board to take immediate action to reduce
11 pollution from rail yards.

12 The last time I spoke here a few months ago, I
13 talked of my experience growing up near major pollution
14 sources and the impacts it had on my health.

15 Today, I'm here on behalf of the people that
16 could not be here to give testimony. I'm here for the
17 families that have to keep their windows closed because
18 the trucks and trains are idling a few yard from their
19 homes. I'm here for the teachers and playground aids that
20 have to carry inhalers just in case the children have
21 asthma attacks. And I'm here for the nurses and doctors
22 that see their patients come in with chronic respiratory
23 illnesses, not knowing how to treat them or what to
24 prescribe to them and what could they possibly give them,
25 knowing they'll return to the air that makes them sick.

1 They want to tell them to move, but this isn't an option
2 for most people.

3 Research supports that the communities that bear
4 a disproportionate burden are low income and communities
5 of color. Even if people can afford to move, the question
6 is why should they. We have a right to clean air. We're
7 calling on you to take immediate action. We want to see
8 the measures outlined in our formal comment letter, such
9 as in-yard rail equipment, like yard trucks and cranes,
10 changed to electric. And there is already zero emission
11 and CNG tech available for these. Enhanced truck and
12 locomotive inspections and the installation of the
13 advanced locomotive emission control system at maintenance
14 facilities where locomotives idle.

15 Our communities have waited long enough. So we
16 need you to stand up for us. The Board has said that rail
17 yards would be addressed in the sustainable freight
18 strategy, but that didn't happen. This fight for clean
19 air is not about me. It's not about you. It's about the
20 families and communities that are suffering the
21 consequences of the Board not taking action. Thank you.

22 MR. GARRETT: Good afternoon, Chairman Nichols
23 and Board members. I'm T.L. Garrett. I'm here
24 representing the Pacific Merchant Shipping Association.
25 We're a trade association that represents the terminal

1 operators and ocean carriers, the ships that come to ports
2 in California and throughout the west coast of the
3 United States.

4 I'm here to say we really support the integrated
5 approach that you've taken in developing the sustainable
6 freight plan, bringing in the other state agencies. We
7 are particularly glad to see GO-Biz have a prominent role.
8 We think they have a lot to contribute in terms of looking
9 at holistic economic impacts. And we would suggest
10 because time is of the essence here that maybe there is
11 some way that you can fast track GO-Biz getting started
12 with the work they need to do to feed into the
13 sustainability plans. We have submitted comments, but
14 I'll leave it to you to judge the merits of those concerns
15 and recommendations.

16 We support your sustainable freight strategies.
17 We want to be your partners in the transformation of
18 California's freight systems. We are ready to accelerate
19 that transformation if we can get the support to do so.
20 Our is a constantly evolving industry. And efficiency is
21 our prime directive. That's how we got our position in
22 the global marketplace and that's how we will maintain and
23 expand upon it going into the future.

24 The industry brings a good resume to the table to
25 be your partner. The 80 percent reduction in particulate,

1 50 percent in NOx, 90 percent in SOX and substantial
2 greenhouse gas benefits as well, not a bad start, but it
3 is just that, a start. There is a lot more to be done.

4 One of the things that we got through the last
5 go-around of regulatory requirements is a whole lot of
6 experience on how to make these things work. And I
7 understand the desire to accelerate technology. I would
8 caution though that those technologies need to be fully
9 vetted before they can actually be in commercial
10 application. Too often we have them what we consider a
11 little prematurely.

12 We do approach sustainability differently. We
13 approach it from an efficiency standard. We're hoping we
14 can reconcile these two perspectives. We think that that
15 will bring the strength and resiliency to this process
16 going forward.

17 We do see some initial missteps in the document.
18 One of the biggest ones is the growth forecast. It's not
19 staff's fault. They're using the best information they
20 have available. Everybody has always used the best
21 information, and it's always been wrong. There is an
22 assumption -- if you look at the greenhouse gas
23 document -- there is an assumption that cargo growth
24 directly -- is directly correlated to the equipment and
25 the emissions. What we have seen over the last -- I'm out

1 of time. May I?

2 CHAIRPERSON NICHOLS: Finish your sentence.

3 MR. GARRETT: So we need to look at the cargo
4 forecasting methodology, and we have some issues with the
5 at-berth regulation, which I was silly not to give myself
6 time for.

7 MS. O'BRIEN: Good afternoon, Madam Chairman,
8 Board members and staff. My name is Rachael O'Brien. I'm
9 here today on behalf of the Agricultural Council of
10 California. Agricultural Council represents approximately
11 15,000 farmers across the state of California ranging from
12 small farmer-owned business to some of the world's best
13 known brands.

14 Thank you for the opportunity to speak. And
15 thank you to staff for their hard work in bringing this
16 proposal forward today.

17 A joint comment letter has been filed with other
18 agricultural representatives with more details on the
19 concerns identified within the sustainable freight
20 discussion draft. So today I'll highlight just a few of
21 those.

22 The first is the proposed concept of a facility
23 emissions cap. It will be important to analyze how an
24 agricultural facility that only operates seasonally will
25 be able to comply in a cost-effective manner with the

1 initial data collection and a potential emissions cap.
2 Also important to explore is how facility operator will
3 oversee vehicles that visit their operations. This issue
4 raises significant questions regarding responsibilities,
5 costs, and effectiveness of this proposal.

6 The second area of concern is the move to zero
7 emission technology for transportation refrigeration
8 units. Before moving forward, an economic analysis should
9 be conducted to consider the following cost
10 competitiveness of various technologies on a fuel life
11 cycle basis relative to the next best alternative.
12 Electricity rates and the potential rise in costs and cost
13 recovery issues from substantial investments made to
14 comply with existing regulation. I will note the report
15 does a great job of laying out the economic and technical
16 challenges in this area.

17 The third point today that I will make is a
18 concern on the large spark ignition equipment near term
19 measure. A future analysis we believe should consider and
20 reflect on the special needs of fork lifts that are used
21 in field that differ from warehouse and distribution
22 centers. The seasonality, small size operations, and
23 remote location characterize much of the agricultural LSI
24 equipment used and of course cost recovery issues from
25 compliance with existing LSI regulation.

1 In closing, we thank you for the opportunity to
2 provide comments. Our industry has a committed interest
3 in the smooth functioning of California's freight system.
4 We are engaged and welcome future opportunities to discuss
5 the sustainable freight strategy with both staff and Board
6 members.

7 MR. MURPHY: Thank you, Madam Chair, members of
8 the Board.

9 My name is Colin Murphy. I'm with NexGen Climate
10 America. Also a member of the California Cleaner Freight
11 Coalition.

12 I want to echo the comments of my colleagues,
13 both in terms of the efforts and responsiveness of staff
14 and the Board members and meeting and discussing this
15 issue, as well as the support from the near-term measures
16 that were suggested in the discussion draft, including
17 enhanced enforcement and data collection.

18 I definitely want to make sure that data
19 collection doesn't go overlooked. It seems obvious. I
20 seems relatively easy. But as Professor Sperling can
21 attest, finding good data from models, particularly in the
22 freight sector is difficult. Models are often limited by
23 the data that goes into them.

24 I mainly want to talk about a vision for the
25 long-term future though. We think that California is

1 going to find it very difficult to meet its long-term
2 goals, both in terms of public health and air pollution,
3 as well as climate change without significantly addressing
4 the freight sector. And we think the freight sector is
5 not going to meet those goals without a move towards zero
6 emission or near zero emission technologies.

7 We like the fact that the discussion draft raised
8 this issue and the started the ball rolling. We think
9 there needs to be a strong commitment and a clearly
10 defined vision of what that zero emission freight sector
11 of the future will look like. We recognize that's going
12 to take time for the freight sector to move this way and
13 aren't intending they should have to turn over their
14 entire fleets in the next few years. But we do think that
15 having that vision out there, putting some of the ARB's
16 authority and resources behind that can encourage local
17 planning, CEQA planning, grant making to make sure that we
18 are on the path to achieving that long-term vision. In
19 order to get there, it requires a strong statement
20 immediately.

21 MR. JACK: Madam Chair, members, my name is James
22 Jack on behalf of the Coalition of Responsible
23 Transportation, specifically here to speak on behalf of
24 our beneficial cargo owners who are the largest customers
25 at California ports and also the major users of the

1 freight network.

2 A few points we wanted to convey today. First
3 and foremost, I wanted to emphasize to the Board what a
4 superb job staff has done with regard to the level of
5 outreach that has been performed to industry. They really
6 set a new benchmark we believe and really ought to be
7 commended for that. The dialogue has been very productive
8 and has benefited the process as a whole. We're grateful
9 for it.

10 We're also very supportive of the multi-agency
11 approach that's being taken with regard to the sustainable
12 freight strategy. And as we move forward, we're
13 especially interested in synthesizing the technology
14 assessment that ARB has undertaken with the economic
15 analysis that will give us a better idea of the cost to
16 implement the menu of strategies that has been identified
17 in the discussion document. We know that investment of
18 private capital will be critical to the success of this
19 effort, but the difficult conversations are still ahead of
20 us. We don't know what the overall cost of the strategies
21 will be of the individual strategies. We don't know what
22 the overall cost to industry will be. We don't yet know
23 what state resources or other public resources are
24 available to help fund this investment in new technology.

25 And so we believe that we are uniquely situated

1 to help provide as much guidance and feedback as possible
2 to the Board with regard to the decision points that
3 shippers -- that beneficial cargo owners make with regard
4 to the incremental cost of doing business through
5 California ports for them versus the decision point of
6 leaving and finding others. We feel that's especially
7 important point of information that we can provide as this
8 process continues through the year. And we're excited to
9 do so because we share the goals that have been
10 articulated by ARB since this process began last January.

11 And in my final few moments if I could answer
12 Ms. Mitchell's question earlier. One of our Board members
13 is an oceangoing steam ship line called Tote. Last
14 Saturday, in San Diego, was the launch of the world's
15 first LNG fuel container ship into the San Diego Bay.
16 That's going to be serving what's called the Jones Act
17 route between Jacksonville, Florida and Puerto Rico. It
18 was quite an event and happy to send you any other
19 information.

20 BOARD MEMBER MITCHELL: Thank you. That's very
21 interesting.

22 MR. LAMBROS: Good afternoon, Chairman Nichols,
23 members of the Board.

24 My name is Rich Lambros. I'm the Managing
25 Director at the Southern California Leadership Council.

1 For those of you not familiar with the Council,
2 we're very pleased to have three former Governors on our
3 Board, Davis, Wilson, and Deukmejian. And over two dozen
4 presidents and CEOs of major southern California companies
5 and agencies. Obviously -- I should mention our mission
6 is economic development, job creation, and the quality of
7 life in southern California.

8 Now, with that as your mission, of course, you
9 pay close attention to a sustainable freight strategy.
10 And we have had the pleasure of working closely with your
11 ARB staff since really 2013 with the Haagen-Smit symposium
12 Long Beach and especially over this last year as we helped
13 host a series of business leader discussions on the
14 sustainable freight strategy.

15 Throughout that process, we've been continually
16 impressed with your staff's desire to get this right. I
17 want to acknowledge Richard Corey, Cynthia Marvin, the
18 whole staff who worked with us, was truly appreciated that
19 they acknowledged the important role that the goods
20 movement sector plays in California. I don't need to go
21 back over all of that because you acknowledge it in the
22 discussion draft and we talked about it today.

23 I do want to pivot on one thing, which is the
24 role it plays in southern California, which is even more
25 important than the rest of the state where it's already a

1 third of jobs and a third GDP in California and southern
2 California the numbers are closer to 40 percent. And the
3 sector is particularly important as a source of
4 good-paying middle class jobs, especially for those who
5 are in need of a job that does not require a college
6 education. And that's unfortunately very important in
7 southern California where 71 percent of our population
8 does not have a four-year college degree. The sector is
9 critically important when we look at the long term for
10 Southern California. Obviously, we need to move the
11 needle on education. This is a sector that we need in the
12 short term and we need it to remain robust and strong.

13 With all that said, what came out of our
14 discussion last year was support for this idea of an
15 integrated approach to developing the sustainable freight
16 strategy. We're pleased to see your action back on
17 December of last year as well as see that prominently
18 featured in the discussion draft.

19 As we sit here today though, it's sort of a
20 midway point in the process. Appreciate Chairman Nichols
21 alleges comments at the beginning that CARB needed to put
22 its cards on the table. And I think you've done that
23 effectively in the discussion draft and also your comment,
24 Madam Chairman that this does not necessarily represent
25 our views of where we will end up.

1 So with that in mind, just three quick
2 suggestions or recommendations regarding the discussion
3 draft.

4 First of all, we asked that staff revisit the
5 section in the draft on next steps, only because the next
6 steps on the draft within the document speak to how this
7 document might immediately start to inform other
8 processes. Now, normally that makes sense with the
9 discussion draft that you would share the components of
10 this, for example, SIP and other efforts that are underway
11 now. But we would ask that you -- may you finish the
12 thought? We ask that you revisit that section. And we
13 ask that you perhaps provide staff or ask staff to provide
14 a little more opportunity for input from affected
15 stakeholders on the immediate and near term actions.
16 That's are our two asks of the day. Thank you.

17 MS. TUTT: Chairman Nichols, members of the
18 Board, good afternoon. My name is Eileen Tutt. I'm with
19 the California Electric Transportation Coalition. Our
20 members include the five largest utilities in the state,
21 as well as a number of smaller utilities. And I'm here
22 before you -- you have our comment letter. I'm here
23 before you today to add a couple of things. And that is
24 the utilities really stand ready to help implement the
25 sustainable freight strategies. And there are -- we have

1 a study underway and we worked very closely with your
2 staff. Your staff has been amazing with a former speaker
3 said they're very accessible. They have met with us
4 often.

5 We have a transportation electrification study
6 underway, the phase three of that study specifically
7 looking at freight. And the benefits to utility rate
8 payers and the environment of electrification of the
9 freight sector. So we want to make you aware that's
10 coming. And as soon as it's here, we will share it with
11 your staff, actually before we release publicly and
12 certainly any of you that are interested.

13 And then finally, I know it's in my letter. I do
14 want to give a shout out to the staff, particularly for
15 including the transit bus sector. That's really important
16 for the reasons outlined by the staff and the reason
17 outlined in our letter. Thank you again.

18 MS. ROBINSON: Katrina Robinson on behalf of
19 CalSTART. I want to thank staff also --

20 CHAIRPERSON NICHOLS: I think Mr. Hargrove was
21 next. Excuse me. You want to trade.

22 MS. ROBINSON: Thank you to staff for the huge
23 amount of effort spent on this plan. CalSTART plans to
24 remain engaged in both the sustainable freight strategy
25 and also on the technology assessment side.

1 First, we believe that the State must continue to
2 support a diverse portfolio of technologies. Zero
3 emission electric drive technologies are important but
4 they are only part of the solution. A sustainable freight
5 system will also need advanced vehicles running on clean
6 liquid and gaseous fuels.

7 Second, it's important to develop a realistic and
8 actionable plan for clean technology deployment and
9 commercialization. We will continue to engage in
10 discussions around these technology development pathways,
11 and we believe it is important to involve major
12 manufacturers and suppliers in these discussions. We
13 thank staff for reaching out to manufacturers.

14 Third, we agree with staff that transforming the
15 sector will require truly comprehensive approach
16 regulations and standards for vehicle and fueling
17 technologies are important but not sufficient. We will
18 also need significant ongoing public investments in
19 vehicles, fuels, and infrastructures for a sustained
20 period of time. Perhaps greenhouse gas funds can help
21 move things a lot more quickly.

22 Finally, we applaud staff for recognizing that a
23 comprehensive sustainable freight technology strategy has
24 to go beyond just freight applications. Previous speaker
25 mentioned the inclusion of measures aimed at transit and

1 shuttle buses is important. And these technology
2 applications can help prove out zero emission and
3 heavy-duty technologies in the short term while also
4 having the spill over effects for the freight industry.

5 Similarly, we encourage ARB to look beyond
6 freight applications when funding off-road vehicle or
7 equipment technologies. Zero and near zero emission
8 agriculture and construction equipment can also have spill
9 over benefits for the freight industry.

10 CalSTART's work shows there is huge potential for
11 emission reductions in this sector. And we thank staff
12 and look forward to working with you in the future.

13 MR. HARGROVE: Madam Chair, members, I'm Matthew
14 Hargrove with the California Business Properties
15 Association. I'm here today representing the Commercial
16 Real Estate Development Association, as well as
17 International Council of Shopping Centers. We are
18 commercial property owners.

19 We look forward to working with the Board and the
20 staff as this plan moves forward. Thus far though, I'm
21 here -- many of my members don't feel that there has been
22 as many opportunities for us to provide the input to this
23 plan as it's before you, but we know there is going to be
24 more opportunity in the future. We think maybe because
25 we're not -- we are an industry of property owners so

1 we're here today to just ask that your staff reaches out a
2 little bit beyond some of the directly impacted industries
3 that are obvious in the plan. And we have some issues
4 that we would like to discuss with staff, including land
5 use issues that will be discussed as the plan moves
6 forward.

7 CHAIRPERSON NICHOLS: Staff is nodding. They've
8 heard you. You're on the list.

9 MR. HARGROVE: That's great. So thank you very
10 much. And again, we look forward to working with you. We
11 had lots of good participation with your Board in the past
12 and we look forward to having more in the future. Thank
13 you.

14 CHAIRPERSON NICHOLS: Thank you for being here.

15 MR. TOY: I'm Bob Toy with Union Pacific
16 Railroad. Thank you for letting us speak today.

17 As we previously indicated in written and in
18 verbal testimony, it's important for the ARB staff to
19 complete the draft technology assessments and release them
20 as soon as possible.

21 We agree with the ARB staff, and staff has
22 already indicated in January 2014 the assessments will
23 help inform the policy decisions going forward.

24 We also will look forward to seeing these
25 assessments and having the opportunity to weigh in.

1 It was wonderful to see the other State agencies
2 talk this morning. Very helpful. And also we appreciate
3 the opportunity -- the commitment for further discussion.

4 Railroads are here anticipating in the process
5 and will continue to do so. We've engaged with ARB over
6 the last two decades to achieve substantial reductions,
7 and we look forward to continuing the conversation.

8 CHAIRPERSON NICHOLS: Okay. Thank you.

9 MR. CARMICHAEL: Good afternoon, members of the
10 Board. Tim Carmichael with the California Natural Gas
11 Vehicle Coalition.

12 I want to echo the thanks to the staff. I had
13 the opportunity to participate in one of those early
14 meetings on this draft and appreciated the exchange and
15 learned a lot. So thank you.

16 I want to save time, I'll agree and support the
17 comments made by Jerilyn Mendoza and Ryan Kenny and just
18 add a couple of additional points I don't think have been
19 made yet.

20 I think the big picture point that I want to make
21 today is while California aggressively pursues zero
22 emission technologies, let's not miss opportunities to get
23 really significant emission reductions in the near and
24 midterm. I think your tech assessments are a great
25 program and they're going to show that for some

1 applications we're looking at 2030 and beyond before the
2 technology that we know about today are ready and viable.

3 And that's 15 years of potential emission
4 reductions that we could get from not necessarily, you
5 know, a 2035 generation technology, but a 2018 or 2020
6 generation technology. And I believe that we never have
7 enough money in the incentives programs, but we have
8 enough to invest a lot in research and development and
9 provide incentives for these near-term and midterm
10 technologies. Natural gas would be one of those, but not
11 the only one.

12 And I just want to encourage that to be part of
13 the thinking as this project moves forward because there
14 is a lot of potential emission reductions, a lot of
15 potential to do better than we're doing today in just the
16 next few years.

17 Next point I want to make is I really like some
18 of the tables in this report, and in particular, the
19 challenge column. And what I like about that is when you
20 identify the challenges, it's easier to find the fix or
21 the solution. And you'll note that that is part of the
22 report for the long term goals, but it's not part of the
23 report for the near term goals. And we already shared
24 this with staff, so I'm sharing it with you in addition to
25 that. But I think that would be a valuable addition to

1 the near term goals and tables.

2 I'll just give you one example. There is a lot
3 of good language in this report about renewable natural
4 gas. But one of the realities is if we want to realize
5 the potential renewable natural gas, whether for this
6 program for the low carbon fuel standard, we need more
7 trucks on the road that can use that fuel than we have
8 today. And the Air Resources Board has a role to play in
9 achieving that and accomplishing that. That's one example
10 and it's obviously one fuel specific. But I think we
11 would benefit if there was a challenge column added to the
12 near term.

13 One last closing comment. There is a lot of
14 interest in renewable natural gas and with appreciate
15 that. And we believe in that fuel. One of the things
16 that we're trying to get from multiple programs at the Air
17 Resource Board is what is a good target for the reduction
18 potential renewable natural gas. One of the benefits of
19 this fuel is it can be blended with fossil fuel natural
20 gas.

21 CHAIRPERSON NICHOLS: Tim, you're taking
22 advantage of your time here.

23 MR. CARMICHAEL: So we are looking for direction
24 from the Air Board on where should we be going with the
25 potential renewable natural gas, assuming we can't do

1 enough with 100 percent of the renewable natural gas where
2 is a good blend. Carbon reduction potential from that.
3 Thank you very much.

4 CHAIRPERSON NICHOLS: Thank you. It's a good
5 point. Our last witness however has been waiting
6 patiently

7 MR. LITES: Last and hopefully not least. Jim
8 Lites with the California Airports Council. We are the 33
9 commercial airports in the state. Airports have been
10 doing quite a bit in general on environmental stewardship.
11 For example, you may have seen air conditioning units that
12 have been installed by most of our major airports on the
13 underside of jet ways the keep the aircraft cool during
14 loading and deplaning so that the aircraft engines do not
15 have to run to run the aircraft's air conditioning system.

16 Most of our larger airports have already changed
17 out their shuttle fleets to alternative fuels. And I
18 wanted to direct the Board and the staff to an initial
19 resource. In February, we released a report on best
20 practices for environmental stewardship for commercial
21 airports, which is on our website at
22 Calairportscouncil.org.

23 I did want to note though that we while we
24 welcome the opportunity to engage with the Board on this
25 proposal, we want to make sure there is a balance. Our

1 regional air system is currently under a lot of pressure.
2 Chico and Modesto lost air service completely in 2014.
3 Crescent City, Arcada, Monterey, Redding, Visalia have all
4 lost their level of air service. So options are fewer.

5 So our smaller regional airports are just trying
6 to make it and continue to serve their local communities.
7 So we want to make sure that environmental regulations
8 recognize the scope of operations at different size
9 airports and provide some appropriate level of response on
10 the part of airports.

11 Lastly, as local public agencies go, airports are
12 probably among the most heavily regulated by the federal
13 government. As our letter to you points out, the FAA
14 prohibits State and local governments from directly
15 regulating aircraft emissions. And so I know that the
16 staff is reaching out to the air carrier community, and we
17 would very much encourage that engagement to ensure that
18 any regulations coming out of this process are consistent
19 and not in conflict with federal regulations. And again,
20 thank you very much for the opportunity.

21 CHAIRPERSON NICHOLS: Thank you.

22 Clearly, we attracted a broad, diverse group of
23 people who are interested in this initiative, which is not
24 too surprising considering the importance of it. And I'm
25 pleased that in general while they have issues in many

1 cases with specific elements of the plan, that overall
2 seem to be willing to engage in the process.

3 And I know there are a couple of members who have
4 very specific additions they would like to make or
5 comments, but I think mostly what we should do is get the
6 Resolution in front of us, since that is what we're going
7 to be asked to focus on is a Resolution to send this
8 document forth into the world officially.

9 BOARD MEMBER GIOIA: I move the Resolution.

10 BOARD MEMBER MITCHELL: I second.

11 CHAIRPERSON NICHOLS: Seconded by Ms. Mitchell.

12 I know you're one of the people who had a
13 proposal you wanted to make.

14 BOARD MEMBER MITCHELL: I have a proposed
15 amendment to the Resolution. It would be under the
16 "therefore, be it resolved," to add a number three which
17 would state the following: "Work closely with local air
18 districts in the preparation of the 2016 SIP and give
19 strong consideration to actions identified in the
20 sustainable freight strategy in the development of that
21 SIP."

22 CHAIRPERSON NICHOLS: So this is basically the
23 comment that Mr. Hogo made at the beginning about wanting
24 to see that if ideas come out of the SIP planning process
25 they would get incorporated into the freight planning

1 process. At least there would be a process in which they
2 would be given strong consideration. I see staff nodding.
3 I don't think there is any objection to that. Why don't
4 we go ahead and add that. Are there other --

5 BOARD MEMBER GIOIA: A comment that could lead to
6 it.

7 There's some reference to the issue of the data
8 collection from freight hubs. And in order to really move
9 forward in a meaningful way, we want to have good data and
10 understand emission levels now and what kind of progress
11 we're making within different parts of the freight system.

12 I know it's been hard collecting data throughout
13 the freight system. And I'm wondering -- and I guess it's
14 page 31 it says there will be data collection from freight
15 hubs. Can you talk more about what that means? And
16 because it's not just the freight hubs, although that's
17 important. It's data from the freight system throughout
18 the state. And talk a little bit more about what you
19 anticipate. I'd like to see us be more specific on the
20 need to get good data from throughout the system.

21 I realize many of the entities don't release this
22 data. How we can get it. Is there a way for us to
23 require it so we can get better measurements?

24 TTD CHIEF MARVIN: I would be happy to answer
25 that. I would first say that from the perspective of

1 trying to look at freight as a system, what it means is we
2 have to understand all the components of that system, that
3 we have in-depth of some. We have much less knowledge of
4 other elements of that system.

5 What we're saying with this proposal for data
6 collection is saying that we need to have really a
7 comprehensive sense of how the cargo is moving, what sort
8 of operations are occurring at different facilities, how
9 many pieces of equipment, how many trucks, you know, how
10 is that process happening. Because if we understand
11 activity, if we understand the equipment, we can
12 understand emissions and help guide and suggest the
13 Board's priorities in terms of responding to that.

14 It's also very clear that with all the regulatory
15 work that the Board has done as well as some of the
16 voluntary agreement that we've got a lot of data coming
17 into ARB. We have a lot of data that is reported either
18 electronically or otherwise. Our first step internally
19 would be to sit down and say what are the key pieces of
20 information we need. The next obvious question is what do
21 we already have spread across the length and breadth of
22 ARB, because we wouldn't want to be asking people to
23 repeat information clearly we already possess. And be
24 able to focus on what are the additional pieces of
25 information that are the highest priority.

1 And then I would say question number four is what
2 is the level of activity at a facility that would suggest
3 that they should be included in the data collection
4 effort. We are not suggesting that every single warehouse
5 that might have one truck come once a week and a warehouse
6 that might have 200 trucks a day are the same and we're
7 going to have to draw a line.

8 BOARD MEMBER GIOIA: When ou say data collection
9 of a freight hub, you're saying -- let's say whether a
10 rail yard or port, you're collecting emissions data from
11 all the activities occurring within that hub that's
12 multi-modal, whether it's rail or trucks. You're
13 collecting all that emissions data. I just want to
14 understand what's meant. Because there is not a lot of
15 discussion about what it means when you say freight hub.

16 TTD CHIEF MARVIN: What we think we mean at least
17 initially is sea ports, airports, rail yard, warehouse
18 distribution.

19 In terms of data, in most cases, we wouldn't
20 expect facilities to be reporting emissions data because
21 most of the facilities don't know the emissions. What
22 they know are what sorts of equipment and vehicles operate
23 there and how many. So we would be gearing it so that
24 it's data that they already possess and could more readily
25 report. ARB can translate that to emissions.

1 BOARD MEMBER GIOIA: So we would THEN calculate
2 emissions data based on the information they give us about
3 the equipment and the activities occurring within that
4 hub?

5 TTD CHIEF MARVIN: Correct.

6 BOARD MEMBER GIOIA: So if its X number of trucks
7 and truck trips, rail, number of rail trips for the port,
8 ships, so are you able to take the data of those
9 activities and translate it to emissions?

10 TTD CHIEF MARVIN: Correct. At least as a
11 starting point to get a sense of the greatest emissions,
12 also facility location. It's particularly for warehouse
13 and distribution that there is not a good statewide
14 inventory of those locations. South Coast and SCAG have
15 done quite a bit of work in that area. They have an
16 excellent start. But it's an area that we realize there
17 is no place where we can go for the data that we need.
18 Also to understand the proximity to neighbors.

19 BOARD MEMBER GIOIA: What about -- trucks travel
20 between hubs and outside the hub. So how are we
21 collecting that? I'll just take a one simple example
22 here. So to the extent that there is improvements in
23 trucks, how do we capture that decrease in emissions for
24 trucks traveling outside the hub and quantify that?

25 TTD CHIEF MARVIN: So that information I think is

1 captured best by the travel activity that we put into our
2 MFAC model. We have data from the MPOs. We have the
3 regional travel information from Caltrans as well as the
4 emission data. So we attempt to represent truck travel
5 through that model. What we don't have in that model
6 though is facilities specific information. So we're
7 trying to supplement the regional travel information we
8 have with facility specific.

9 BOARD MEMBER GIOIA: I'm just wondering if having
10 a little more explanation of that here in the document
11 would make some sense so it's helpful to provide a little
12 more information.

13 The second point, there's the new OEHHA standard
14 for health risk assessments. And so there is some
15 discussion of that on page 20. When will ARB start to
16 calculate the new health risk assessments?

17 TTD CHIEF MARVIN: One of the comments we heard
18 on this report is we're relying on the health risk
19 assessment we did roughly ten years ago, which is
20 certainly true. We have tried to present the best
21 information we have about the change in emissions to
22 indicate that we think there has been very significant
23 reductions in risk.

24 What we'll be assessing as we go forward here is
25 when where do we need to do new health risk assessments.

1 Where do we need to go back and update the older ones
2 using the old OEHHA methodology. And I think it just as
3 importantly, the new activity data, the new emissions data
4 reflecting the turn over of the fleets to cleaner
5 equipment.

6 BOARD MEMBER GIOIA: So here's the question that
7 comes up. If you've done analysis ten years ago that
8 showed a lower health risk than would occurred today if
9 you did the same analysis using the new OEHHA sort of
10 criteria, and then going forward, when there are
11 improvements in the system, we will have lower health
12 risks as we get improvements in the system.

13 Don't you have to do at some point a base line to
14 compare future action to today, rather than to analysis
15 done ten years ago which has different assumptions?
16 Otherwise, you get a false sort of comparison of the
17 health risks.

18 TTD CHIEF MARVIN: I think the key thing is
19 understanding what's the residual risk today after
20 implementation of all of the ARB's programs, particularly
21 in the 2020-2023 time frame when the truck and bus rule is
22 fully implemented.

23 So our best way of doing that is to use a
24 combination of the work we've already done with minor
25 updates and also capturing facilities that we haven't done

1 health risk assessments on. So we haven't looked at
2 warehouses distribution. We haven't looked at the border
3 crossings, some of those other sorts of activities or
4 airports.

5 CHAIRPERSON NICHOLS: I think there is an
6 underlining assumption that we wouldn't put in the
7 information about the improvements that have come as a
8 result of the regulations that have already been
9 implemented and the turnover that's already occurred in
10 the fleet, even though it's slow.

11 BOARD MEMBER GIOIA: Here's the issue I'm getting
12 at. I would take a very simplistic approach.

13 Let's say you have data from five years ago about
14 a particular port. Very simple. Very complicated. And
15 there is a cancer risk of -- I'll just pick a number of
16 ten in a million. And if you were to do a new analysis
17 using the new OEHHA standards and the cancer risk -- let's
18 say would be 25 in a million instead of ten in a million
19 because of the new standards, right. And then you do --
20 and then there is improvements in the system and in the
21 future the cancer risk is 15 in a million. If you hadn't
22 done the base line, the 15 would be more than what you did
23 last time, but it's truly less than the new base line.
24 You see the point I'm getting at? How do we address that.
25 Because if you say we --

1 CHAIRPERSON NICHOLS: I think you made your point
2 actually quite well. I think the question is what exactly
3 the staff is proposing to do about it.

4 TTD CHIEF MARVIN: So we had not defined what the
5 scope would be of the health risk assessment going
6 forward. We know our first priority is to do the initial
7 health risk assessments for the facilities we've never
8 done before so we have a starting point there. And then
9 it becomes a matter of the priorities and the staff
10 resources to go back and update the health risk
11 assessments for the ports and rail yards that ARB staff
12 studied so extensively.

13 CHAIRPERSON NICHOLS: There is a huge amount of
14 interest in this information obviously. It's going to be
15 reviewed very critically by many people and also a lot of
16 data collection as well as updating of models and so forth
17 that needs to be done. So I don't think we should
18 minimize what's going to be required here. We can't just
19 look at what was done ten years ago and then apply some
20 new factor from OEHHA and say that's the answer. That
21 would not be acceptable. But I don't think the staff is
22 ready at this point to define exactly how they're going to
23 go about doing the update. Is that a fair --

24 TTD CHIEF MARVIN: Very yes. Thank you very
25 much.

1 BOARD MEMBER GIOIA: I was trying to make sure we
2 figure out how we can collect where there is improvement
3 over time so we can understand where to prioritize.

4 CHAIRPERSON NICHOLS: Absolutely. There is a lot
5 of other people interested in making sure we do that, too.

6 Yes, ma'am and then Mr. Roberts.

7 BOARD MEMBER RIORDAN: This is not necessarily
8 something that should be included, per se. But one thing
9 I heard which I think is important and that is very good
10 technology assessment, which you obviously have been
11 working on and will continue to work on. But I would like
12 to express my personal feeling that that's really critical
13 to making this very successful.

14 CHAIRPERSON NICHOLS: Supervisor Roberts and then
15 Mr. Eisenhut wants to make a comment.

16 BOARD MEMBER ROBERTS: I'd like to make a couple
17 comments. The first of which if it sounds like I'm
18 bragging -- maybe I might be a little bit.

19 CHAIRPERSON NICHOLS: I think Mark Twain it's not
20 bragging if you really did it.

21 BOARD MEMBER ROBERTS: Then it's not bragging.

22 Commissioner Mitchell was asking about liquefied
23 natural gas powered ships. So you all know, there was a
24 ship launched on Saturday. It's about 765 feet long
25 called Isla Bella. It's natural gas powered and will be

1 put in service shortly. Unfortunately, on the Caribbean
2 and not the California coast, but it was built in San
3 Diego, launched in San Diego but the General Dynamics
4 NASSCO. I think that might -- if you saw something
5 recently, I suspect that it. It may be the largest
6 liquefied natural gas powered ship around. We've got
7 another one coming also. So we're kind of proud of what
8 they're doing.

9 Let me -- it's ironic I just spent several days
10 in Mexico City talking about goods and freight movement.
11 And I think most of you are aware we had probably the
12 busiest border crossing in the world. I should have
13 brought a picture to show you the trucks all lined up.
14 And they go for miles trying to get across in both
15 directions.

16 So we are working on yet another border crossing.
17 And I think we reached recently an agreement with the
18 various officials in Mexico City over the last few days
19 how we're going to go about this. It's going to have
20 managed lanes so we can reverse the flow and take
21 advantage of the area. We already purchased over 100
22 acres to make this work. And it's a SANDAG-Caltrans
23 project. So happy to see a representative from Caltrans
24 here because they're very involved.

25 It's one of the things we're trying to do, not

1 only facilitate freight, but clear up the problems when
2 you have enormous number of trucks that are all idling and
3 trying to get -- sometimes waiting two to three hours to
4 cross the border. It's an issue.

5 I think we're working on something. We're at
6 that stage where depending on your perspective you either
7 look at this and you see a lot of hope or you look at it
8 and see a threat. The staff has a lot of work to do to
9 flush this out. And hopefully we can bring the hope and
10 the threat so we can end up with something people are
11 pleased with but we make progress that we would like to
12 see.

13 I was happy to hear the concerns and the
14 willingness to work on some of the economic issues. As
15 Professor Sperling said, the complexity and the economic
16 side of the trucking and other things is not a simple
17 issue.

18 Let me give an example of one of the things that
19 has come to my attention is we have a major problem in the
20 state because we want to be the most advanced, of course,
21 in the country and set our own standards, not with the
22 federal standard, but we will come up with a new standard.
23 We have a standard for the weight of buses and trucks,
24 20,500 pounds. You can't build an electric bus and
25 probably not going to be able to build an electric car or

1 fuel cell truck that will get within that. At the federal
2 level, I think it's about 24,500. Quite a bit higher than
3 we have. Even that may be problematic. We're wrestling
4 with this and working with the Legislature to see if we
5 can resolve our -- even our CNG buses don't -- because of
6 the weight of the tanks and other things we can't get
7 under that limit. There is not a chance an electric bus
8 is going to get under that limit.

9 So we have a conflict sometimes in our own family
10 of regulatory agencies to satisfy these things. And we'll
11 work through that, I'm sure. But I think it's part of the
12 example that sometimes it looks like an easy problem to
13 solve has some complexity we're not aware of.

14 We look at the regulatory side on the air quality
15 and we want all these things. But we have no idea that
16 there are other limits out there that are imposed by
17 Caltrans or somebody else that is diametrically opposed to
18 what we're trying to do.

19 I have a lot of confidence staff will do a good
20 job and work through some of the issues.

21 I would hope - there are two letters that have
22 been submitted from the port, one from somebody testifying
23 earlier and another from SANDAG that raises a series of
24 questions and issues and recommendations. And I hope that
25 staff will respond to those, not today, but can respond in

1 writing.

2 I think the hope -- the biggest hope is that the
3 process is inclusionary and that it do a little bit more
4 of a robust effort when it's done heretofore in reaching
5 out to them incorporating private sector and experiences
6 so that we arrive perhaps with less of having to cut the
7 baby in half and keep the baby all together.

8 So if I could encourage one thing, it would be to
9 try to do a little bit more outreach. As I went through
10 and reviewed some things, I felt like we probably had not
11 included enough of the people who's technologies would be
12 dependent on and to have a realistic vision of what we can
13 expect, how much those things might weight, and what the
14 problems with integrating them are going to be.

15 But I'm confident that we'll get there.

16 BOARD MEMBER EISENHUT: Thank you, Chairman
17 Nichols.

18 First on a lower key note, I noticed in this
19 document a blessed absence of acronyms. I just want to
20 encourage that kind of behavior to the maximum extent
21 possible. It makes it far more user friendly. If we want
22 an inclusionary audience, I think that's something we
23 might want to attend to.

24 I support -- and I think this is redundant but
25 it's not over until everyone has spoken -- the emphasis on

1 enforcement for multiple reasons that have been
2 articulated here. The emphasis on incentive funding. I
3 think particularly with regard to agriculture, the
4 anxiety. There is a certain amount of anxiety out there.
5 The facilities have been described as ports, but not one
6 truck. And much of what we do in California is somewhere
7 between a port size and a single truck size. And the
8 sooner we have more specificity to this, particularly with
9 regard to data collection and cap, I think the more
10 integrated folks can and will be in this process.

11 And finally, since ag does not so much
12 distribution centers but involvement in freight and we
13 depend on the freight, and I'd like to have CDFA have a
14 seat in that row of invited guests and agencies.

15 CHAIRPERSON NICHOLS: Dr. Sperling and Ms. Berg.
16 Is he yielding to you? Apparently, he is. Oh, John,
17 you're on the list, too.

18 BOARD MEMBER BERG: I'll go ahead and jump in
19 then.

20 Thank you, staff. This has been a yeoman's job.
21 I did pull records from our meetings, and I look at what
22 we have been -- what you have been trying to put together
23 with our input. It has been remarkable.

24 I would like to see an inclusion, however, of a
25 commitment on the technology assessment completed. And

1 you are going to come back to us at the end of December
2 according to this new Resolution. And I think that
3 it's -- well, maybe I'd like to get your actually feedback
4 as to whether the technology assessment could be completed
5 by then.

6 MOBILE SOURCE CONTROL DIVISION CHIEF WHITE: The
7 short answer is, yes, they will be. I think for many of
8 the sectors that we are looking at, we're very close. I
9 think in light of the comments and certainly recognize the
10 important role they play in the development of this
11 document and the upcoming SIP work, we will double our
12 efforts to get those out and available for comment as
13 quickly as possible.

14 BOARD MEMBER BERG: Will you be holding workshops
15 following up on Supervisor Roberts' suggestion on trying
16 to get as much public participation on that on the
17 technology assessments as well.

18 MOBILE SOURCE CONTROL DIVISION CHIEF WHITE: We
19 were not planning to have workshops. We will be putting
20 them out as draft and receiving comments on them and
21 working and meeting with key stakeholders that were
22 involved in the development and using those to inform
23 their comments and how they participate in this process.
24 Those final documents will play into the recommendations
25 that are brought back to the Board regarding the

1 sustainable freight strategy.

2 BOARD MEMBER BERG: My understanding is that a
3 lot of the assessment has been completed and that staff
4 did utilize a lot have this information. As we do get
5 input back from the key stakeholders, if you find out
6 anything new, then will that also edit your report?

7 TTD CHIEF MARVIN: I suggest, the proposals that
8 are in here, the concepts on near term measures we suggest
9 we start work on, in that process, we would very much be
10 looking for the input on the draft technology assessments
11 to be informing whether those measures and our initial
12 thoughts are the best ways to proceed on those measures.

13 So I see the comments on the tech assessments
14 having the greatest influence on both the development of
15 near-term measures as well as the assessment that we'll be
16 doing of all the other levers in those vision tables to
17 determine which ones are most appropriate and most cost
18 effective to put on the table for the next round.

19 BOARD MEMBER BERG: Thank you, Cynthia, for
20 talking about technology as a cornerstone of the program
21 and the incentives.

22 One of the reasons I'm so interested in this
23 technology assessment is really moving on to our incentive
24 programs and what do we need there to further the
25 technology. I mean, it was quite an eye opener on the

1 report that we heard today from Ms. Dunn, 300 billion
2 short today for transportation. That's business as usual.

3 At what point are we going to -- would it be
4 appropriate to include a focus on incentives and raising
5 the funds that are going to be vital in order to see this
6 program succeed however we determine is the best way,
7 number one. And number two, shouldn't we have something
8 in here that really does focus on economic impact.

9 CHAIRPERSON NICHOLS: Can I jump in and answer
10 that question because I think it's important?

11 This is not ARB's sweet spot. This is an area
12 where we know some things and we have some expertise. But
13 this is why we have Go-Biz involved in this effort from
14 day one, because they're looking at -- I think
15 everybody -- let's acknowledge this. We're not just
16 talking about, like, an expensive program like the truck
17 rule. We're talking about potentially a ginormous
18 program. That's a numeral term here. To transform the
19 freight system as we might envision it needs to be
20 transformed. That is something that's going to have to
21 use a variety of different financing mechanisms, some of
22 which we know about at least and others of which we don't
23 and clearly a much larger private sector involvement. Not
24 just by regulated people, but by others who would be
25 investing in these kinds of changes. So this is not --

1 that cannot be all on ARB's plate to do.

2 BOARD MEMBER BERG: I'm really glad you brought
3 that up. Maybe you can help future the next question I
4 have in perspective for me. That really is this concept
5 of one state, one plan. How do you see ARB's plan coming
6 together with the other plans in order to lay out a grand
7 vision so I don't stay awake at night worrying about this
8 stuff.

9 CHAIRPERSON NICHOLS: Well, I probably should
10 differ this one to the staff. But I would say in
11 discussions that we've been having -- you know, this has
12 been -- we've been struggling with this for quite a long
13 time, as you all know. We delayed bringing the
14 sustainability freight strategy back to the Board because
15 it was really hard to figure out how you blend the clear
16 need for some shorter term actions with the also clear
17 need to have a much bigger vision of some things that have
18 to take longer.

19 And I think that bringing other agencies in,
20 we're in a position to align that plans they are working
21 on and to try to come up with a sustainable freight
22 strategy that will be a joint document of which ARB's
23 piece will just be a part.

24 And I know the Governor has been looking at this.
25 The Governor's office has been considering the possibility

1 of actually incorporating this into an Executive Order
2 just to make it clear that's what's going to happen so
3 people will know that's how things are going.

4 But even pending all of that, I think it's clear
5 that everybody is depending on us to find a way to
6 integrate these plans with each other. So we're a little
7 bit behind the eight ball here. CalTrans submitted their
8 freight plan to the federal government ahead, but they
9 recognize that theirs was in some respects not as
10 strategic as it should have been. And they're looking to
11 be catching up with the next wave here. So I'm not going
12 to go sit down there and --

13 BOARD MEMBER BERG: And to be able to think about
14 the near term versus the vision for the long term, maybe
15 bifurcating. I'm not suggesting anything be done with the
16 document. But in my head, trying to understand what we're
17 trying to accomplish near term, which does feel more SIP
18 oriented with cobenefits of greenhouse gas long term both
19 still. And so I'll just move onto the near term.

20 I'm fully in support of the enforcement. And
21 thank you for including that.

22 I would appreciate a comment update on the rail
23 yards. I know we moved away from the MOUs. And I
24 appreciate the things that you're looking at from a rail
25 perspective.

1 But I would like you to follow up on the comments
2 or if you could give the Board just your thoughts on the
3 comments that was made by East Yard Rail.

4 And then secondly -- or East Yard Community. I'm
5 sorry.

6 And then finally, I really do appreciate the
7 one-size-does-not-fit-all. Many comments were made
8 about -- and even Ms. Marvin indicated on the facility
9 cap, you know, there is a big difference between a
10 warehouse that has a couple of trucks or a few trucks a
11 week versus someone that has 200 a day. It's the same
12 with the airports. It's the same with the ports.

13 And so if you could comment how you feel that our
14 plan is going to recognize that, I'll be done. So rail
15 yards, if you could just make a comment on what we heard
16 in testimony today. And then finally, your thoughts on
17 the fact that there are company differences and how you
18 plan on attacking them.

19 TTD CHIEF MARVIN: On rail yards, I think it's
20 both fair and accurate and important to note that our
21 views have changed about the most productive and effective
22 way to move forward to get further emission reductions and
23 provide more health protection.

24 I think when we did the 2009 technical occupation
25 document that the East Yard letter and comments referred

1 to, there were a lot more older locomotives operating in
2 California, both within the state and crossing state
3 lines. Those presented a really attractive opportunity at
4 that time because it would be cost effective to replace
5 them. ARB didn't have the authority to mandate that, but
6 we were looking at tackling that from an incentive program
7 perspective. So we offered incentives through Prop. 1B
8 and Moyer. We accomplished some of that turn over.

9 One of the fundamental changes is that over time
10 both the larger Class I rail roads and the smaller Class
11 III short lines have removed many of those older
12 locomotives for service that ARB clearly had the ability
13 to regulate. So when we went back and looked at what was
14 actually still appropriate or still captured essentially
15 in the options that were described in that older document,
16 the population in the scope was much, much smaller. We
17 had the opportunity to share this information with the
18 East Yard and some of the other community advocates who
19 are interested in rail yard issues last year. We are
20 still happy to engage on that.

21 Let me boil it down to basically say there is not
22 as much there as we thought back in 2009. When we stepped
23 back and said where are the emissions from rail yards that
24 are having substantial impacts on public health, the
25 answer used to be it was primarily the drayage trucks

1 serving those yards. We've seen a huge investment and
2 huge progress in cleaning up those drayage trucks.

3 As you look forward to the future, the bulk of
4 those emissions are coming from the interstate line haul
5 locomotives. So those are the ones that are much more
6 difficult for the Board to tackle. And because of that,
7 that's why we took the approach that we're suggesting in
8 here in terms of pushing for the next iteration of federal
9 emission standards and specifically trying to seek the
10 ability to have authority to regulate slightly older
11 locomotives.

12 In other words, there is a proposal that we ask
13 EPA to redefine the new locomotive so that the federally
14 preempted period covers roughly the first seven years of
15 the life of that locomotive, which would open up an
16 opportunity for ARB and California when the locomotive was
17 older than that. It's pretty wonky in terms of the
18 approach. But it would provide a really important opening
19 for a regulatory or another perspective because we would
20 have the ability potentially to define what California
21 needs from that second generation of locomotives.

22 So this is a long response on locomotives, but
23 it's always complicated there. So I just wanted to
24 acknowledge that we believe that the proposal that you
25 have in this document does represent the most powerful way

1 to go forward to deal with the largest source of the
2 problem in the emission at rail yards.

3 CHAIRPERSON NICHOLS: Okay. Dan, it is your
4 term.

5 BOARD MEMBER SPERLING: Thank you.

6 The first topic I want to address is the data
7 one. And I want to raise it above what Supervisor Gioia
8 was talking about. I think as Chairman Nichols said, this
9 is -- she said it's not our sweet spot but it's actually
10 much bigger than that. It's no one's sweet spot. And we
11 are talking about something big and complicated. I think
12 we need to focus on some kind of data and information
13 repository. It probably should be a third party
14 operation. It's really something Caltrans and CTC should
15 be participating in. There has to be -- if we're going
16 down this path, there has to be a major, major commitment
17 to understand a little bit about the freight system, to
18 having the data so there can be an analysis and models.
19 And that it's transparent. This has to be publicly
20 available and transparent. So that's number one thought.

21 And just kind of as a little piece of that is
22 there is discussion that efficiency improvements is a part
23 of it and how is anyone going to evaluate efficiency if e
24 don't have some kind of data or understanding of the
25 system and kind of just taking that one little step

1 further is that all of these first items we're talking
2 about are really mostly little technical fixes in the
3 sense of taking some truck or equipment and make it
4 electric. In almost all cases, that's going to be more
5 expensive and it's unclear what the system effect would
6 be. So we need that broader understanding.

7 Number two, we need to be working towards some
8 kind of action plan here, a broader action plan.
9 Everything we've done -- we have all of our big programs.
10 There's some kind of big strategy that goes along with it.
11 Or some kind of robust policy instrument that goes along
12 with it.

13 There's no robust policy instruments here that we
14 talked about. So this idea of expanding SB 375 to include
15 freight would at least start creating a framework. I'm
16 not necessarily advocating that, but something like that
17 where because this is all about partnerships. And that's
18 one way of creating the partnerships would be doing that.
19 In terms of policy instruments, are we going to use -- I
20 mean, we've come to -- I think we come to think good
21 policy, good regulation is regulations that are
22 performance based and market based as much as possible.
23 At least performance based, because we don't know what the
24 answers are. We know what the goals are. But we don't
25 know exactly what to do to get there.

1 So this is all part of this creating a little
2 more robust action plan about what's -- how are we really
3 thinking about this. And I think that's a lot to ask of
4 the staff because it has to be broader than that. There
5 might be other mechanisms for how to get more engagement
6 in that process. But I think that needs to be a goal and
7 aspiration.

8 CHAIRPERSON NICHOLS: Sounds like a job for an
9 academic partnership. I'm just thinking. Could there be
10 some institution in the state of California that might be
11 able to assist us in this effort, do you think?

12 BOARD MEMBER SPERLING: Next item, we haven't
13 really talked about all of these near term items here.
14 Ms. Vergis did a great job of giving the overview of it.
15 In the report, there is a lot of bulleted items in there.
16 Somehow, somewhere I think there needs to be more
17 engagement on that -- on those items.

18 And you know, part of that is the idea of the
19 technology assessment needs to -- there needs to be more
20 input into the design and analysis and implementation of
21 those items. We have no sense of cost effectiveness. We
22 have no sense of cost benefit in this.

23 So what I propose is as a way of assuring more
24 oversight on that is deleting two words on the Resolution.
25 It's on the last page, Page 4 it says, "be its resolved

1 that the Board direct staff to pursue development of the
2 potential near-term actions described in the discussion
3 draft for Board consideration or Executive Officer
4 implementation."

5 I have great faith in our Executive Officer.
6 He's brilliant, has lots of integrity. He's engaging, but
7 I really think this is something that needs to come back
8 to the Board. I mean, if the Board is going to spend an
9 hour and a half on a nozzle for a gas tank, for a fuel
10 tank, then everyone of these is far more important than
11 that one and has far greater implication.

12 CHAIRPERSON NICHOLS: Could I just weigh in on
13 that for a second?

14 I don't disagree I wouldn't want to see any
15 regulations on that list not come back to the Board. I
16 don't think that was the intent. I think intent was it
17 was not customary for the staff to come to the Board when
18 they are initiating an enforcement action for a lot of
19 reasons. I would not want them to be doing that. I think
20 that's the distinction.

21 BOARD MEMBER SPERLING: We can delete the
22 enforcement action.

23 CHAIRPERSON NICHOLS: I'm just saying that is how
24 that language was -- I think that's what that was designed
25 to convey.

1 Balmes, Miller, Gioia and me.

2 BOARD MEMBER BALMES: I would like to join with
3 Mr. Eisenhut in saying I think the report was well
4 written. I think Heather had a major role in crafting the
5 report. I appreciate the clarity.

6 I actually read through every page, which is rare
7 for me. It sustained my interest.

8 But I did notice that Table 1 seems to be
9 missing, which was a list of health conditions that are
10 supposed to be related to freight emissions. I think you
11 need to add Table 1 in there.

12 As usual, following Ms. Berg, she's asked some of
13 the questions on my list and elicited a good response from
14 Chairman Nichols and from Ms. Marvin.

15 But I just want to reemphasize the ginormity of
16 this effort. I'm glad Chairman Nichols mentioned the
17 possibility of the Governor's Executive Order because I
18 was going to ask about that.

19 But I think the amount of money that eventually
20 has to be put into a state sustainable freight plan
21 implementation of the items in that plan is such that we
22 need the Governor to get behind us.

23 It's great that the agencies are already working
24 together. But you know, if the boss says make things
25 happen.

1 I think following up on the issue of ginormity, I
2 think it's really great all the various zero emission
3 options that are described in the plan. A lot of it has
4 to do with scalability. I think we need to have more
5 focus on demonstration projects that basically support
6 that scalability. And you know, we may not be there yet
7 with most of these technologies, but I think we should try
8 as soon as possible to move from the small pilot
9 demonstration to really scaleable demonstration projects.
10 And you know, I think that drayage trucks is maybe one of
11 the more feasible areas where we could move to
12 scalability.

13 The other thing that -- and to get the money for
14 large scale demonstration projects, one option to
15 consider, everyone is going to this trough is the cap and
16 trade revenues. I realize it's not our purview, but it's
17 something we could be discussing with the Legislature, the
18 Governor's office, because I think that it would be a very
19 good use of some of the cap and trade revenues to support
20 again these large scale demonstration projects in terms of
21 zero emission approaches to freight.

22 The last thing I wanted to say was about CEQA.
23 We heard from several -- mostly from the Cleaner Freight
24 Coalition that large freight hub development -- at least
25 the feeling is and concern is that large freight hub

1 development occurs without paying the proper attention to
2 CEQA issues. I don't know if that's true or not.

3 But when I want to say proper attention to the
4 kinds of issues we're concerned about here. So if there
5 is a way for our very knowledgeable staff with regard to
6 freight-related air quality issues can be more involved
7 with these large freight development projects and the
8 environmental impact assessment related to that, it's
9 something I would advocate. I think our expertise is
10 important and, you know, it's sort of siloed off after the
11 fact as opposed to, well, projects are being developed.
12 So I think the staff has done a great job. While we had
13 to wait a while, I think it was worth the wait.

14 BOARD MEMBER MITCHELL: I want to thank Cynthia
15 Marvin and Doug Eto. You've done a yeoman's job on this
16 project.

17 And also want to mention that both of them
18 traveled frequently to Southern California to look at our
19 ports and study what was actually happening there.

20 When we look at a project of this size and we all
21 do it on this Board, we're balancing the economy on one
22 side with the environmental impacts on the other. We will
23 be considering regulation as well as incentives, as well s
24 perhaps market mechanisms that will help us get there.

25 There has already been some substantial amount of

1 private investment in southern California in clean
2 freight. And that's exemplified by what the ports have
3 done in their cleaner action plans.

4 A couple of points I want to make are in our near
5 term measure -- and I'm going to be specific here -- the
6 near term measures on trucks, which is your actions four
7 and five, are not near enough for Southern California.
8 This is the measure where you're going to go and ask US
9 EPA to put in stricter regulations for heavy-duty trucks
10 on lost emissions. I think we're too far out on that. As
11 you know, we have NOx emission reduction requirements in
12 Southern California that will hit us in the 2023. And if
13 we stretch that out until 2018 for US EPA to answer us, we
14 will not have time to react.

15 I'm going to suggest that you take another look
16 at that, move that up to 2016 to act add and also the same
17 time in parallel let's get our machinery in motion to put
18 our own regulations in for NOx emissions reductions. So
19 that was your fall back in action five on that near term.

20 I would also very much support Tier 4 locomotives
21 in our SIP activities in this freight sustainability plan
22 so that we can also incorporate it into our SIP
23 development.

24 I think also in the near term -- I'm going to go
25 to what has been suggested by the east yard rail -- east

1 yard rail yard's Angelo Logan's group. There is already
2 technology in place that provides for either a natural gas
3 powered or electric battery powered yard equipment that
4 moves cargo. And I think we could begin developing a
5 regulation that requires a turnover of that new equipment
6 or old equipment into new equipment to reach that
7 standard -- a higher standard than maybe what they might
8 otherwise do.

9 And that applies also not to just to rail yards,
10 but to dock yards where they're moving equipment through
11 yard hustlers and other equipment.

12 I also want to mention that there is some
13 skepticism out there about technology and where it is.
14 But our technology is very far advanced. And I think we
15 will be getting where we need to be in the next few years.

16 I want to bring up a facility in Long Beach, the
17 Long Beach Container Terminal, that is all electric. It
18 is called the Middle Harbor. Like middle earth. And it
19 is a pretty remarkable facility. All the cranes are
20 electric. Very big cranes there. It's a brand-new
21 terminal that's built to handle the larger container ships
22 that are going to come in and the yard equipment that
23 moves those big containers from one point to another are
24 all battery operated. And they have in the facility
25 charging stations to recharge the batteries in those --

1 that yard equipment to take out the old battery and insert
2 a new battery and recharge the used battery. So that's
3 the kind of technology I think we will see. We see it now
4 and it can certainly be a model for the future.

5 And your technology assessments I hope will be
6 reflective of some of these new things that are coming
7 out.

8 The facilities emissions cap that is proposed in
9 the document I think is a good approach. I think we
10 should be looking at it as one tool in our toolbox. It
11 may be useful in particular facilities. It may not work
12 for the other facilities. But I think it's something that
13 is a good approach and a tool that we should be
14 considering in our kinds of approaches we can use as we
15 move forward.

16 I also encourage you to continue the great
17 collaboration that you have established here with our
18 other state agencies, but also with the stakeholders, with
19 the business side and with the environmental side. I
20 think what we want to accomplish here is measures that
21 make business sense as well as protect the environment.
22 It has to make business sense or it won't be successful.

23 I applaud our staff for what they have done and
24 urge you to keep working and collaborating with all of the
25 folks that you have already touched. Thank you.

1 CHAIRPERSON NICHOLS: Okay. Mr. Gioia and then
2 Mr. De La Torre.

3 BOARD MEMBER GIOIA: It was one other comment I
4 forgot to make.

5 Given a number of folks talking about the
6 ginormity and the cost of all of this and Dr. Balmes
7 talked about -- which I think is appropriate -- the use of
8 cap and trade revenue to funds this, it seemed if we had
9 this great group working together, which is our public
10 agencies and stakeholders, including business, having some
11 discussion about revenue opportunities to fund these
12 improvements, I mean, it's great having the plan. We want
13 to have the plan. And rather than have the discussion out
14 over somewhere else about where you get revenue, at least
15 having some discussion with all the folks who are going to
16 be part of this system. Of course, whether it's container
17 fee bill, but having some meaningful discussion about
18 that. So that's the point I wanted to make.

19 You see that as a possibility, as an opportunity
20 as we go forward at least acknowledging that this comes at
21 a high cost?

22 EXECUTIVE OFFICER COREY: Yes. It's really a
23 good question, Supervisor, because we're thinking about
24 first touch point is going to be when we return to the
25 Board in June. We're returning with the Air Quality

1 Improvement Program proposed funding plan. And that will
2 have in it -- we're working through the stakeholder
3 process right now with representing pretty high need and
4 opportunity on the heavy duty side. The point Dr. Balmes
5 made in terms of demonstration projects on the heavy duty
6 side.

7 The Board approved in 14-15 plan. It's about 80
8 million was directed to heavy duty sector. And the point
9 that we made back then -- and I think the Board at the
10 Board's direction was recognize it's a lot of money but
11 just a start in terms of recognizing it's going to be
12 heavy duty that's moving us forward in terms of NOx and
13 with respect to diesel PM.

14 So the plan that we bring back to you will be
15 looking at even additional support on the heavy duty side
16 because we know it's going to play a key role here.

17 But to your point, Supervisor, the conversation
18 with CalSDA, CalTrans, GO-Biz and a range of stakeholders
19 is going to be part of where the remaining opportunity is
20 for efficiency reductions and what is the instrument,
21 where do regs have a role, where do incentives have a
22 role, what roll does the incentives take.

23 BOARD MEMBER GIOIA: It's going to be a
24 discussion of -- without agreeing on one or two sources,
25 discussion of the possible types of revenue opportunities.

1 Of course, there is a school of thought that consumers
2 should pay a dollar more for a TV that's imported into the
3 country from Asia through a container fee. And so there's
4 opportunities at least to list what the potential revenue
5 sources could be.

6 CHAIRPERSON NICHOLS: I think that has to happen.

7 Okay. Mr. De La Torre.

8 BOARD MEMBER DE LA TORRE: Thank you.

9 So much has been said and I think I agree with
10 most what was said. I won't point out the things I don't
11 agree with it.

12 Just in general, I think this conversation has
13 been very, very positive. I think I want to thank staff.
14 Clearly, from December to now, we do have something
15 substantive for getting the reaction we wanted to see from
16 stakeholders so that we could move ahead. So I'm very
17 grateful that we are where we are now, and I wanted to
18 thank staff for doing all that.

19 The coordination with the other government
20 entities, state government entities is absolutely vital.
21 I think that's a huge step forward. When I've described
22 this process to people, they are frankly amazed it hasn't
23 happened before. But here we are. And moving forward,
24 it's fantastic to have all of those resources growing in
25 the same direction.

1 I'll start with the container fee comment. That
2 legislation I think is being introduced next week,
3 bipartisan. The administration is supportive of it. The
4 author happens to be a very, very, very good friend of
5 mine. And this is real.

6 To the extent that California is having this
7 coordination, is having this planning ahead of the other
8 49 states, assuming something happens back in
9 Washington -- and again, it's bipartisan, so this isn't
10 one of those things that just doesn't happen back there.
11 It has very, very good chances of succeeding with all the
12 players that are involved. That we could be first in line
13 for that. And that's another added benefit to this whole
14 process.

15 In terms of the plan itself, I'll just say two
16 things. One, the comments about the short-term benefits.
17 Even as we're waiting for the bigger picture things, we
18 have to -- have to push forward on the short-term gains
19 that we can make as we move along.

20 And secondly, enforcement. Enforcement,
21 enforcement, enforcement. It's become a little bit of a
22 joke here and actually in my household with regard to
23 reporting the smoking trucks on the 710 freeway. I just
24 got a little jab from my high school student. My high
25 school age son the other day about that. He's my

1 stenographer for when we see these smoking trucks. So you
2 know when your teenage son is taking jabs at you over
3 smoking trucks, it's gone a little too far.

4 CHAIRPERSON NICHOLS: Whatever it takes, I say.
5 What's his phone number?

6 BOARD MEMBER DE LA TORRE: The enforcement, we
7 really need to put the resources there and put all of our
8 best minds together for coordination with CHP and others
9 to make sure we are absolutely being tough on the
10 enforcement end of the things that are already out there
11 today. So with that, thank you.

12 BOARD MEMBER SERNA: I'll add my thanks to staff
13 for an exceptional start to this effort.

14 One of things I didn't see in the draft and
15 perhaps I glossed over it. Please correct me if I'm wrong
16 here. But one of the things that I'm really interested in
17 and this parallels the discussion about revenues sources
18 for implementation eventually is where is the intersection
19 if there is one? I personally feel there is a strong one
20 between SB 535 implementation and accomplishing the
21 objectives that are in the -- what will be in the final
22 strategy. I think that's something that should not be too
23 hard to conceive in terms of our anecdotal understanding
24 of where freight infrastructure primarily lies in the
25 state.

1 And I wondered if there's -- I don't know who the
2 appropriate staff would be to answer the question. But is
3 there an opportunity to go as deep as exploring what
4 CalEnviroscreen tells us today about where the
5 disadvantaged communities are that would be eligible for
6 535 funds and how that might actually achieve two
7 objectives to help us implement the sustainable freight
8 strategy and to accomplish the intent of the legislation
9 in 535.

10 EXECUTIVE OFFICER COREY: I can take a stab at
11 this, Supervisor.

12 And my reference to the Air Quality Improvement
13 Plan was brought to the Board last year and the revised
14 one 15-16 be brought in June.

15 I mentioned the fact that the share of the
16 recommendations would be focused on the heavy duty sector.
17 What I did say was that those dollars represented a
18 proposal that represents GGRF, a large portion of those
19 dollars and the heavy duty dollars that are directed at
20 the heavy duty sector, demonstration projects, much
21 cleaner technologies were targeted to community. In other
22 words, we expected virtually all of those models to be to
23 the benefit of disadvantaged communities. Because it
24 really gets to the point we just made, which is
25 disproportionately heavy duty sector we would be talking

1 about are ports, hubs, other distribution centers, they
2 are disproportionately disadvantaged communities.

3 So that document, that plan that we are
4 developing through stakeholder process now would be very
5 clear in terms of not just with respect to the
6 apportionment of recommended expenditures, but how they
7 overlay with SB 535 and the opportunity in terms --

8 BOARD MEMBER SERNA: Am I hearing that there is
9 an opportunity to exploit in a positive fashion and by
10 reference in the final sustainable freight strategy more
11 explicitly than there is today where that convergence is?

12 EXECUTIVE OFFICER COREY: Just the fact that you
13 asked the question, we can be clear on the impact of the
14 heavy-duty sector on the disadvantaged communities. When
15 we moved forward and we talk about this in terms of the
16 next steps, one of the next steps and the number of the
17 comment letters we had actually really helped move us
18 forward -- the next steps was move forward on developing
19 these long term measures. Do the underlying analysis, and
20 exploring what the opportunities are for reductions. Our
21 analysis is where are those sources and where is the
22 overlay on their location with respect to disadvantaged
23 communities and what are the levers in terms of achieving
24 reductions, including GGR. Thank you.

25 CHAIRPERSON NICHOLS: I'm not sure if I missed

1 it, but it's also an element in our responsibility for
2 accounting for the greenhouse gas reduction fund account
3 to demonstrate funds have been directed as required by
4 legislation. So we're going to have to make the
5 connection with whatever fund we are putting out through
6 that fund.

7 BOARD MEMBER SERNA: I'm thinking two birds with
8 one stone.

9 CHAIRPERSON NICHOLS: Exactly. That's great.

10 BOARD MEMBER SHERRIFFS: Thank you.

11 I just wanted to make one small -- we are putting
12 this emphasis near terms in term of enforcement. And I
13 would like to reframe it in terms of compliance
14 assistance. Because unless we are going to say Chris
15 Shimada sent us, I think we want to be identified in a
16 very helping role helping people -- most people want to do
17 the right thing. And that's really how we want to
18 approach this. So just a small thought. Thank you.

19 CHAIRPERSON NICHOLS: Okay. Anybody else?

20 If not, I have a couple comments I would like to
21 make before we finally get to a vote on this.

22 Just really quickly, I heard three things that I
23 thought had not been totally addressed. Cost has been
24 well covered by other people, so I am not going to say
25 anything more about that.

1 Representative from SCAG mentioned the issue of
2 leakage. Nobody else picked on this, so I will. It is
3 totally not okay to shift emissions from the sector from
4 one place to another. That's not what this is about. So
5 I want to make sure it's clear. And I think we assume,
6 but just to state it on the record. We don't approach our
7 work under AB 32 with the motion that leakage is okay.
8 We're trying to actually reduce emissions overall.

9 And that leads me to the other thing that I want
10 to actually propose because I think it's a little bit
11 dramatic that we move paragraph 3 under the be it further
12 resolved up to the top group of two where the Board is
13 directing and add this issue of looking at the system
14 efficiency improvements, because I wanted to be clear from
15 day one we're looking at how to make this system work
16 better, not just cleaner. And since it was the
17 gentleman -- I believe it was Mr. Schott who specifically
18 mentioned there needed to be early emphasis on system
19 efficiency, I'm hoping he has some ideas or that others do
20 too about things that we could do be helping them to get
21 implemented, identifying what the obstacles are that we
22 could possibly help to break down. And I think it would
23 dramatize the importance of the issues. So unless there
24 is any objection on anybody's part, I'm going to propose
25 that we move that item in the Resolution.

1 BOARD MEMBER SPERLING: Could you say that again?

2 CHAIRPERSON NICHOLS: Take paragraph three near
3 the bottom of the page, the number three evaluate and
4 consider potential ARB levers and broad based approaches
5 for system efficiency improvements and move it up on the
6 page so it's number three under the first set of proposals
7 just to give it a little extra weight and tie the two
8 things together. That's my editorial improvement. I
9 don't see anybody looking doubtful about that. Okay.

10 BOARD MEMBER GIOIA: If we're making some
11 suggestions to the Resolution -- and I didn't write
12 anything out -- whether including in the Resolution some
13 reference that revenue opportunities will be explored and
14 including some provision that reflects that.

15 CHAIRPERSON NICHOLS: I think that would be fine.
16 I'm hoping people can find a place to insert that in the
17 evaluation. I think it's probably intended, but it needs
18 to be -- I could see it going in under two. We were going
19 to specifically call out California Department of Food and
20 Agriculture. We were going to add the paragraph that Judy
21 Mitchell --

22 BOARD MEMBER MITCHELL: I added it as paragraph
23 three so --

24 CHAIRPERSON NICHOLS: How about if mine is three
25 and yours is four.

1 BOARD MEMBER MITCHELL: That's fine.

2 BOARD MEMBER GIOIA: The revenue can be wherever
3 it fits.

4 CHAIRPERSON NICHOLS: With all of that said --

5 BOARD MEMBER SPERLING: And my little --
6 Chairman, was my little change included in that?

7 CHAIRPERSON NICHOLS: No. The reason why it
8 wasn't is because I don't know how to re-write so it takes
9 out enforcement without calling out enforcement, which I'm
10 not sure we want to do. I mean, I don't want to have a
11 fight over this one. I understand you want any proposed
12 regulation to come back to the Board. I think the staff
13 is in agreement with that anyhow.

14 BOARD MEMBER SPERLING: And any other actions
15 that come out of this initiative.

16 CHAIRPERSON NICHOLS: Well, like what, for
17 example? You want to be kept informed, right. We all
18 want to be kept informed I think. I mean seriously, I
19 don't --

20 BOARD MEMBER SPERLING: Are any of the incentive
21 ones, would there be -- would that be relevant because
22 there's quite a few items on incentives.

23 CHAIRPERSON NICHOLS: I think so. I think they
24 would be included under regulatory approaches.

25 EXECUTIVE OFFICER COREY: That's correct. They

1 come back under plans. And the reason the language is as
2 it is in addition to the Chair's reference to enforcement
3 action, there were also some waiver petitions to EPA that
4 would include the provision as it was called out. So
5 clearly, the regulatory action absolutely has to come
6 back, go through a public process, plans funding, plans
7 come back to the Board as well.

8 CHAIRPERSON NICHOLS: Are you satisfied?

9 BOARD MEMBER SPERLING: I'll trust our Executive
10 Officer with his great integrity.

11 CHAIRPERSON NICHOLS: All right. So with that
12 said, I'm going to call the question here. We have a
13 Resolution in front of us as amended per the discussion
14 here.

15 All those in favor please say aye.

16 (Unanimous aye vote.)

17 CHAIRPERSON NICHOLS: All opposed. No, none.
18 And no abstentions.

19 So this has been a serious and very, very
20 fruitful discussion. And we really -- I think I want to
21 add my thanks as well to this staff. This has been a
22 terrific conversation and way more work to be done. But
23 looking forward to all of us staying involved and on top
24 of it. Thank you. We have a picnic, what's now going to
25 turn into afternoon tea. But no public comment. All

1 right. Then we stand adjourned. Thank you.

2 (Whereupon the Air Resources Board adjourned
3 at 2:47 p.m.)
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