

MEETING  
STATE OF CALIFORNIA  
AIR RESOURCES BOARD

CALEPA HEADQUARTERS  
BYRON SHER AUDITORIUM  
SECOND FLOOR  
1001 I STREET  
SACRAMENTO, CALIFORNIA

THURSDAY, JANUARY 21, 2016

9:08 A.M.

JAMES F. PETERS, CSR  
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A P P E A R A N C E S

BOARD MEMBERS:

Ms. Mary Nichols, Chair

Ms. Sandra Berg, Vice Chair

Dr. John Balmes

Mr. Hector De La Torre

Supervisor John Gioia

Mr. John Eisenhut

Ms. Judy Mitchell

Mrs. Barbara Riordan

Supervisor Phil Serna

Supervisor Ron Roberts

Professor Daniel Sperling

STAFF:

Mr. Richard Corey, Executive Officer

Dr. Alberto Ayala, Deputy Executive Officer

Ms. Edie Chang, Deputy Executive Officer

Mr. Kurt Karperos, Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Ms. La Ronda Bowen, Ombudsman

Ms. Emily Wimberger, Chief Economist

Ms. Heather Arias, Chief, Freight Transport Branch, TTD

A P P E A R A N C E S C O N T I N U E D

STAFF:

Ms. Heather Brown, Manager, Statewide Truck and Bus Enforcement Section, Enforcement Division (ED)

Mr. Bart Croes, Chief, RD

Dr. Jorn Herner, Branch, Research Planning, Administration & Emission Mitigation Branch, RD

Mr. Douglas Ito, Assistant Chief, TTD

Ms. Alexandra Kamel, Attorney, Legal Office

Ms. Margret Kim, Senior Attorney Legal Office

Ms. Debbi Klossing, Manager, Rail and Marine Enforcement Section, ED

Ms. Kelly Lier, Staff, Sustainable Freight Section, Transportation and Toxics Division(TTD)

Ms. Karen Magliano, Chief, AQPSD

Ms. Cynthia Marvin, Chief, TTD

Mr. Kirk Oliver, Senior Attorney, Legal Office

Ms. Terry Roberts, Manager, Sustainable Communities Policy & Planning Section, AQPSD

Mr. Todd Sax, Chief, ED

Dr. Annalisa Schilla, Manager, Climate Action and Research Planning Section, RD

Dr. Linda Smith, Chief, Health and Exposure Assessment Branch, RD

Mr. Mark Stover, Chief, Field Operations Branch, ED

Mr. Webster Tasat, Manager, AQPSD

Mr. Jonathan Taylor, Assistant Chief, AQPSD

A P P E A R A N C E S C O N T I N U E D

STAFF:

Ms. Sylvia Vanderspek, Branch Chief, AQPSD

Dr. Patricia Velasco, Staff Air Pollution Specialist, Air Quality Planning and Science Division(AQPSD)

Ms. Sydney Vergis, Manager, Good Movement Program Section, TTD

Mr. Daniel Whitney, Attorney, Legal Office

Ms. Maggie Witt, Climate Action and Research Planning Section, Research Division(RD)

ALSO PRESENT:

Ms. Adenike Adeyeye, Earthjustice

Mr. Paul Cort, Earthjustice

Mr. Joel Ervice, RAMP

Mr. Frank Gallo, Ditching Dirty Diesel Coalition

Mr. Ryan Kenny, Clean Energy

Ms. Virginia Madueno, American Lung Association

Mr. Bill Magavern, Coalition for Clean Air

Mr. Jesse Marquez, Coalition for a Safe Environment

Mr. Beto Lugo Martinez, Comite Civio Del Valle

Mr. Adrian Martinez, Earthjustice

Dr. Jimmy O'Dea, Union of Concerned Scientists

Ms. Tamara Raspberry, Sempra Utilities

Mr. Tim Schott, California Association of Port Authorities

Ms. Shelly Sullivan, Climate Change Policy Coalition

A P P E A R A N C E S C O N T I N U E D

ALSO PRESENT:

Ms. Taylor Thomas, East Yard Communities for Environmental Justice

Ms. Katie Valenzuela Garcia, AB 32 Environmental Justice Advisory Committee

Ms. Diane Vasquez, Sierra Club California

Ms. Morgan Wyenn, Natural Resources Defense Council

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

2 VICE CHAIR BERG: Good morning. Well, maybe if  
3 my fellow Board members here in the back that we're  
4 starting, we'll get everybody up front and get seated. I  
5 want to wish everybody a happy new year, and thank you  
6 very much for joining us today.

7 We will call the January 21st, 2016 public  
8 meeting of the Air Resources Board will come to order.  
9 Will you please stand with me for the Pledge of  
10 Allegiance.

11 (Thereupon the Pledge of Allegiance was  
12 Recited in unison.)

13 VICE CHAIR BERG: Madam Clerk, will you call the  
14 roll, please.

15 BOARD CLERK JENSEN: Dr. Balmes?

16 BOARD MEMBER BALMES: Here.

17 BOARD CLERK JENSEN: Mr. De La Torre?  
18 Mr. Eisenhut?

19 BOARD MEMBER EISENHUT: Here.

20 BOARD CLERK JENSEN: Supervisor Gioia?

21 BOARD MEMBER GIOIA: Here.

22 BOARD CLERK JENSEN: Ms. Mitchell?

23 BOARD MEMBER MITCHELL: Here.

24 BOARD CLERK JENSEN: Mrs. Riordan?

25 BOARD MEMBER RIORDAN: Here.

1 BOARD CLERK JENSEN: Supervisor Roberts?

2 Supervisor Serna?

3 Dr. Sherriffs?

4 PROFESSOR SPERLING?

5 BOARD MEMBER SPERLING: Here.

6 BOARD CLERK JENSEN: Vice Chair Berg?

7 VICE CHAIR BERG: Here.

8 BOARD CLERK JENSEN: Chair Nichols?

9 Madam Chair, we have a quorum.

10 VICE CHAIR BERG: Thank you. Before we get  
11 started, I have a few announcements. First of all,  
12 anybody wishing to testify should fill out a  
13 request-to-speak card available in the front lobby outside  
14 of our board room here. Please turn it in to our clerk  
15 and -- or our Board Assistant. And we need you to do that  
16 prior to the commencement of the item.

17 Also, speakers, please be aware that the Board  
18 will impose a three minute time limit. Please state your  
19 first name and last name when you come up to the podium  
20 and put your testimony into your own words rather than  
21 reading off of a letter. It's easier for the Board to  
22 follow when you go straight to your main points. Your  
23 written testimony will be submitted and it will be entered  
24 into the record.

25 For safety reasons, please note the emergency

1 exits are to the rear of the room. In the event of a fire  
2 alarm, we are required to evacuate immediately and to go  
3 downstairs and outside the building. When the all-clear  
4 signal is given, we will return to the hearing room and  
5 resume our hearing.

6 So with that, we have a full agenda today, and a  
7 lot of updates to the Board setting our agenda for 2016,  
8 and we have a lot facing us this year. So it's going to  
9 be an exciting year, but we're going to start out, first,  
10 with Item 16-1-1, and it is a consent item.

11 Madam Clerk, do we have anybody signed up for  
12 this item?

13 BOARD CLERK JENSEN: No.

14 CHAIR NICHOLS: And this item is a research  
15 proposal titled, "Heavy Duty On-Road Vehicle Inspection  
16 and Maintenance Program". Are there any Board members  
17 that would like to bring this off the consent item?

18 Thank you.

19 BOARD MEMBER ROBERTS: Move approval.

20 VICE CHAIR BERG: Thank you. I have a motion to  
21 approve. Can I have a second?

22 BOARD MEMBER RIORDAN: Second.

23 VICE CHAIR BERG: All in favor?

24 (Unanimous aye vote.)

25 (Dr. Balmes and Professor Sperling recused

1 themselves from the vote.)

2 (Supervisor Serna and Chair Nichols not present.)

3 VICE CHAIR BERG: Any opposed?

4 Passed.

5 BOARD MEMBER SPERLING: Madam Chair, I'd like to  
6 recuse myself from this vote, because it's a University of  
7 California item.

8 VICE CHAIR BERG: Thank you.

9 BOARD MEMBER BALMES: I should do the same.

10 VICE CHAIR BERG: Thank you. So can the vote  
11 reflect that we have two people recusing themselves.

12 Thank you.

13 Moving right on to 16-1-2. So to kick-off our  
14 first board meeting this year, we'll hear from our  
15 Executive Officer, Richard Corey, on the Air Resources  
16 Board's programs and priorities for 2016. The Board made  
17 significant progress in 2015, and once again will be  
18 advancing a wide range of initiatives in 2016. Mr. Corey  
19 will provide an overview of the major efforts that will  
20 occur, as well as actions that will come before the Board.

21 Mr. Corey, will you please bring -- begin your  
22 presentation?

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

25 EXECUTIVE OFFICER COREY: Yes. Good morning,

1 Vice Chair and members of the board. I'm really pleased  
2 for the opportunity to describe the work we'll be doing  
3 over this coming year and highlight some of the  
4 significant actions you'll be considering over the course  
5 of the year.

6 --o0o--

7 EXECUTIVE OFFICER COREY: To begin, I want to  
8 start with the many major air quality and climate  
9 accomplishments in 2015, and the work that staff has done  
10 to position the agency for the challenges ahead. There's  
11 a lot to be proud of, but it's also clear we have a great  
12 deal more to do. It will be evident as I work through the  
13 presentation.

14 It's also clear that this represents a tremendous  
15 opportunity to define our path to achieve our air quality  
16 and climate goals for years to come. I'll also highlight  
17 how the transformation is already underway due to the  
18 leadership of this board.

19 --o0o--

20 EXECUTIVE OFFICER COREY: First, let me start  
21 with some of ARB's accomplishments over this past year.

22 --o0o--

23 EXECUTIVE OFFICER COREY: We continue to see air  
24 quality progress throughout the State. During 2015,  
25 ongoing implementation of our control programs resulted in

1 a further reduction of 100 tons per day of smog forming  
2 NOx emissions, 100 tons a day.

3           Six areas of the State that exceeded the 75 parts  
4 per billion ozone standard now meet that standard, with  
5 two areas, Mariposa County and San Luis Obispo County  
6 reaching that benchmark this year. Health risks from air  
7 toxics also continue to decline. An ARB study published  
8 during 2015 found that cancer risk from exposure to the  
9 State's most significant air toxics declined 76 percent  
10 over a 23-year period. There's still more to do, and  
11 we'll be talking about that later as well.

12           But changing weather patterns impacted by climate  
13 change and catastrophic wildfires are increasing the  
14 challenge. And new health science is showing there are  
15 greater health impacts at lower levels. Thus, we'll need  
16 to expand our efforts to bring helpful air to all  
17 Californian residents.

18                           --o0o--

19           EXECUTIVE OFFICER COREY: On climate, our actions  
20 are putting us on track to meet the 2020 greenhouse gas  
21 reduction target mandated by AB 32. In 2015, nearly 100  
22 percent of covered entities complied with the  
23 cap-and-trade regulation's November compliance event and  
24 transportation fuels and natural gas were brought under  
25 the cap, effectively doubling the size of the carbon

1 market.

2           To date, more than 2.8 billion has been  
3 appropriated for climate investments and over 800 million  
4 has been dedicated to providing benefits to California's  
5 disadvantaged communities. Yet, it's critical that we  
6 continue efforts to reduce carbon and stay on a trajectory  
7 to stabilize global temperatures by defining further  
8 actions to meet 2030 and 2050 goals.

9                               --o0o--

10           EXECUTIVE OFFICER COREY: Underlying these air  
11 quality and climate accomplishments is continued growth in  
12 clean technologies. Over 180,000 zero emission vehicles  
13 are now on the road in California, supported by over 8,000  
14 public and workplace charging stations. Fuel cell  
15 technology entering the market with the launch of the  
16 Toyota Mirai last year, and 13 fueling stations are now in  
17 operation.

18           The development of zero emission heavy-duty  
19 technology is also underway, and combustion technologies  
20 are becoming increasingly cleaner with certification of  
21 the first heavy-duty engine meeting an ultra-low NOx  
22 standard.

23                               --o0o--

24           EXECUTIVE OFFICER COREY: To support effective  
25 implementation, we've increased our compliance outreach

1 and enforcement efforts, including focusing on large  
2 freight hubs and disadvantaged communities. You'll hear a  
3 focused briefing on this work later today. We've enhanced  
4 assistance to fleet owners and operators to understand  
5 rule requirements and provided financial assistance for  
6 compliance. As part of that effort, in 2015, ARB staff  
7 provided personal assistance to over 60,000 diesel hot  
8 line callers.

9 --o0o--

10 EXECUTIVE OFFICER COREY: We've also expanded our  
11 analytical capabilities continuing ARB's long-standing  
12 technical and scientific leadership. These efforts  
13 include development of the greenhouse gas facility mapping  
14 tool, EPA approval of ARB's mobile source emissions model,  
15 release of the Vision 2.0 scenario modeling system, and  
16 improved tools for air toxics risk assessment.

17 In addition, technology assessments for  
18 heavy-duty trucks and off-road equipment were completed in  
19 2015. These assessments form the foundation of planning  
20 and policy development, and several more technology  
21 assessments will be completed this year.

22 Finally, ARB further integrated economic analysis  
23 into our policies and programs and appointed a new  
24 economics advisor.

25 --o0o--

1 EXECUTIVE OFFICER COREY: Improved monitoring and  
2 measurement tools are enhancing our ability to understand  
3 pollution sources and respond more rapidly to emergency  
4 situations. We've expanded the greenhouse gas monitoring  
5 capabilities and increased our mobile monitoring  
6 capabilities as well to better track pollution within  
7 communities.

8 We've also been partnering with other agencies,  
9 such as JPL and NASA to take advantage of aircraft and  
10 satellite measurements to complement or ground-based  
11 network of monitors.

12 Finally, we've enhanced our emergency response  
13 capabilities. I'll talk more about this and our response  
14 to Aliso Canyon natural gas leak later in the  
15 presentation.

16 --o0o--

17 EXECUTIVE OFFICER COREY: As I highlighted last  
18 year, we've implemented a number of organizational and  
19 leadership changes to align ARB's priorities and ensure  
20 that we're prepared. This past year we've added three new  
21 members to the leadership team, Todd Sax, Chief of the  
22 Enforcement Division; Emily Wimberger, Economics Advisor,  
23 who is leading our efforts to integrate more comprehensive  
24 consideration of economics throughout the agency; and I'm  
25 pleased to announce the appointment of Jack Kitowski as



1 this will be a critical year in defining the work that's  
2 still ahead. This will offer both challenges, but also  
3 tremendous opportunities to shape California's future.  
4 Before I walk through the specific items coming to the  
5 Board this year, I'd like to briefly describe the 2016  
6 priorities and objectives.

7 --o0o--

8 EXECUTIVE OFFICER COREY: Over the next 15 years,  
9 we have a number of critical air quality and climate  
10 goals. These mandates include attaining health based air  
11 quality standards for ozone by 2023 and 2031, and PM2.5  
12 standards over the next decade; minimizing health risk  
13 from exposure to air toxics; and by 2030 reducing  
14 greenhouse gas emissions 40 percent below 1990 levels,  
15 reducing petroleum use by 50 percent, increasing energy  
16 efficiency, and deriving 50 percent of our electricity  
17 from renewable sources.

18 --o0o--

19 EXECUTIVE OFFICER COREY: The interconnected  
20 nature of these public health and climate goals means we  
21 must align the strategies that will be needed to meet both  
22 goals. We'll need effective implementation of our current  
23 programs, but also a comprehensive transformation of the  
24 transportation and energy sectors, how we build our  
25 communities, and manage our natural resources.

1           Doing this will require creativity, innovation,  
2 and new partnerships at a scale far beyond what we've ever  
3 done. But it will also deliver broad environmental and  
4 public health benefits and promote clean economic growth.  
5 And to ensure these broad environmental priorities are  
6 equally shared, a continued strengthening of our  
7 environmental justice efforts will also be a central  
8 focus.

9           I'll talk more about these actions later.

10                           --o0o--

11           EXECUTIVE OFFICER COREY: Meeting these goals  
12 will require sustained action. We'll need to undertake  
13 comprehensive new efforts to reach these goals including:  
14 Significantly greater penetration of ZEVs to reach our  
15 target of 1.5 million vehicles by 2025, and continued  
16 growth through 2030 and beyond; and introduction of the  
17 next generation of cleaner technologies in sectors where  
18 combustion will continue to play a role and increased use  
19 of renewable fuels.

20           The major plans coming to the Board this year are  
21 the first step, first step by defining a roadmap for  
22 meeting the targets. Although each plan focuses on  
23 individual mandates, the integrated planning process ARB  
24 has embarked on provides a coordinated framework. Board  
25 guidance and actions on how to achieve the transformation



1                   --o0o--

2                   EXECUTIVE OFFICER COREY: Incentive programs have  
3 been an important part of our portfolio to accelerate the  
4 penetration of cleaner technologies. They'll be key going  
5 forward to achieving the technology transformation needed.

6                   The first step will be to identify the scale of  
7 investment needed. While the planning processes this year  
8 will help define the needed investment, we do -- we know  
9 already that traditional public and private funding  
10 streams are simply not large enough. The GGRF, the  
11 climate proceeds, is an important part of our efforts to  
12 cut greenhouse gas emissions and meet our goals.

13                  Likewise, long-standing air quality programs will  
14 remain important part of our efforts. But the challenge  
15 is much bigger than the GFRF or the Carl Moyer program.

16                  ARB will continue to leverage public-private  
17 partnerships to support investments on consumer outreach,  
18 awareness, and demand. But we need to figure out how to  
19 scale up the investments in cleaner and low-carbon  
20 technologies and foster much greater investments from the  
21 private sector. This means that we'll need to look beyond  
22 traditional State grants and subsidies and look to  
23 financing California's low-carbon low-NOx future in new  
24 ways that look at the synergies between public and private  
25 funding partnerships.

1           In short, 2016 SIPs and the scoping plan need to  
2 be the catalyst for discussions about how to increase the  
3 return on private investments in cleaner technologies,  
4 fuels, and sustainable development.

5                               --o0o--

6           EXECUTIVE OFFICER COREY: Early in my  
7 presentation, I mentioned two successes in 2015: 100 new  
8 tons of NOx reduced and nearly 100 percent cap-and-trade  
9 compliance. Both of these are the result of ongoing  
10 implementation efforts of ARB's existing programs. Even  
11 as you'll be considering new plans for 2030 goals, most of  
12 ARB's work is focused on implementation.

13           The Truck and Bus regulation, Low Carbon Fuel  
14 Standard, Cap-and-Trade and Advanced Clean Cars are four  
15 programs that we often mention, but those are only the tip  
16 of the iceberg. There is air quality monitoring,  
17 research, enforcement, incentives, certification, and  
18 many, many more.

19                               --o0o--

20           EXECUTIVE OFFICER COREY: Wee need to continue to  
21 strengthen environmental justice considerations across all  
22 levels of the organization. ARB has historically worked  
23 to incorporate environmental justice at the individual  
24 program level, but strengthening will need to include  
25 broader coordination amongst programs and with

1 environmental justice communities.

2 Board members will play a key role in providing  
3 direction on environmental justice policies and actions.  
4 Within the organization, we're increasing our outreach to  
5 and monitoring and enforcement efforts within the  
6 environmental justice communities. Investments in  
7 disadvantaged communities also remain a focus of our  
8 actions, but we know this is an area where we need to do  
9 more.

10 --o0o--

11 EXECUTIVE OFFICER COREY: Now, I'd like to  
12 preview some of the major items that will be coming to the  
13 Board this year.

14 --o0o--

15 EXECUTIVE OFFICER COREY: During 2016, you'll  
16 have numerous opportunities to discuss and guide the  
17 activities of this agency. These include consideration of  
18 an unprecedented number of plans coming to the Board this  
19 year, updates on our latest understanding of scientific  
20 issues, and status of current technologies, regulatory  
21 measures, and investments plans.

22 As Board members, you'll also help guide our  
23 continued engagement with local, national, and  
24 international partners.

25 --o0o--

1 EXECUTIVE OFFICER COREY: Beginning with the  
2 major planning efforts, the Board will consider 15  
3 regional SIPs, 15, to meet federal ozone and PM2.5 air  
4 quality standards. You'll hear a preview of these SIPs  
5 later today. The Board will also consider the next update  
6 to the climate change scoping plan to attain more  
7 aggressive climate goals for 2030. The scoping plan  
8 update will be released in 2016.

9 Building on ARB's previous work on the 2015  
10 sustainable freight strategy, the Board will consider the  
11 Sustainable Freight Action Plan in mid-2016, and you'll  
12 hear an update from staff about that today as well. As  
13 required by SB 605, ARB is developing a plan to reduce  
14 emissions of short-lived climate pollutants. ARB released  
15 a draft plan in September 2015, and the Board will  
16 consider the final plan in mid-2016.

17 Under the federal clean power plan, states must  
18 develop compliance plans to meet reductions of carbon  
19 dioxide. ARB staff has already held several workshops and  
20 hearings on the plan and anticipates presenting a draft to  
21 the Board in mid-2016. Staff will also be presenting  
22 proposed updates to the per capita greenhouse gas  
23 reduction targets established under SB 375 at the end of  
24 the year.

25 --o0o--

1 EXECUTIVE OFFICER COREY: ARB staff is developing  
2 a series of technology and fuels assessment reports for  
3 heavy-duty applications to understand technology options.  
4 These assessments identify technology performance, market  
5 readiness, costs, and current deployment challenges.  
6 Assessments will be released in 2016 for fuels and major  
7 off-road sectors, such as locomotives and ocean going  
8 vessels and aviation.

9 ARB is partnering with EPA and NHTSA on the  
10 mid-term review. We'll be reviewing the market status of  
11 zero emission vehicles and we'll bring the findings to the  
12 Board in 2016. The findings will help inform future  
13 light-duty vehicle standards beyond 2025, and any  
14 subsequent rule-making to modify the standards, if  
15 necessary.

16 --o0o--

17 EXECUTIVE OFFICER COREY: Many of this year's  
18 regulatory efforts will build on technology advancements  
19 by requiring the next step in cleaner technology. These  
20 include amendments to regulations that require  
21 electrification of auxiliary engines on ocean going  
22 vessels while at berth, and California's heavy-duty  
23 greenhouse gas phase 2 standards. ARB will consider the  
24 potential for setting more stringent standards than those  
25 proposed by EPA as well.

1           Staff will also begin work on regulations coming  
2 to the Board over the next five years, adoption of a new  
3 heavy-duty low-NOx standard will be a critical element of  
4 meeting our air quality standards. Other work will  
5 include regulations and policies in the light-duty sector  
6 that extend the current Advanced Clean Cars program past  
7 2025. Lastly, ARB plans to petition EPA on setting more  
8 stringent standards for locomotives.

9                           --o0o--

10           EXECUTIVE OFFICER COREY: Other regulations will  
11 target the introduction of zero emission technologies in  
12 the heavy-duty sector. These regulations will serve as  
13 the foundation for technology transfer to additional  
14 sectors. Measures in this category include the Advanced  
15 Clean Transit regulation to phase in requirements for zero  
16 emission bus purchase with a goal of full zero emission  
17 transit fleets in 2040. ARB will also consider a new  
18 regulation in early 2016 to facilitate zero emission  
19 heavy-duty technology by providing flexibility for  
20 certification of meeting medium and heavy-duty engines.

21           Finally, ARB will initiate work on the last-mile  
22 delivery regulation to phase in requirements for zero  
23 emission technologies.

24                           --o0o--

25           EXECUTIVE OFFICER COREY: On fuels related

1 measures, the Board will consider a regulation for oil and  
2 gas production, processing, and storage to minimize  
3 fugitive methane emissions from oil and gas operations.  
4 This regulation will also cover well stimulation,  
5 including fracking.

6 Looking ahead, development of a new low emission,  
7 low carbon intensity renewable diesel fuel will begin  
8 providing both NOx and greenhouse gas benefits.

9 --o0o--

10 EXECUTIVE OFFICER COREY: The Board will consider  
11 an update to the SB 375 greenhouse gas emission reduction  
12 targets first established in 2010. ARB is currently  
13 collaborating with MPOs and stakeholders to develop a  
14 proposal for updated targets. Later, during today's  
15 meeting, you'll hear about the activities underway to  
16 develop California's Sustainable Freight Action Plan.

17 --o0o--

18 EXECUTIVE OFFICER COREY: The greenhouse gas  
19 Cap-and-Trade Program continues to be a world example of  
20 climate change regulation. ARB has been in contact with  
21 dozens of jurisdictions around the world about our  
22 program, especially with respect to our successful linkage  
23 with Quebec's cap-and-trade system.

24 At the United Nations climate change conference  
25 in Paris this fall, California representatives were in

1 high demand to discuss its programs. The Board will also  
2 consider amendments to the Cap-and-Trade Program that will  
3 include continuing the program beyond 2020, expiration of  
4 post-2020 caps, and linkages with other jurisdictions.

5 The amendments will also include modifications,  
6 so that the program can be used to comply with the Clean  
7 Power Plan.

8 As part of the Cap-and-Trade Regulation, staff  
9 will also continue implementation of the adaptive  
10 management program to monitor for potential adverse air  
11 quality impacts.

12 --o0o--

13 EXECUTIVE OFFICER COREY: In 2016, you'll  
14 consider approval of funding allocations for several  
15 current programs, including the Low Carbon Transportation  
16 and Carl Moyer programs. Combined, these programs will  
17 provide over 550 million to accelerate the deployment of  
18 cleaner technologies. Funding programs will also continue  
19 to focus emission benefits to disadvantaged communities  
20 throughout the State. And as I mentioned earlier,  
21 implementing the transformation of the transportation and  
22 energy sectors will require continued long-term funding  
23 both for existing programs and innovative new mechanisms  
24 that take advantage of public-private sector partnerships.

25 --o0o--

1 EXECUTIVE OFFICER COREY: Before I wrap-up, I  
2 need to touch on two issues that ARB is deeply involved  
3 with that compound the challenge of achieving emission  
4 reductions needed to meet our air quality and climate  
5 goals. The first is a natural gas leak from the Southern  
6 California natural gas storage facility in Aliso Canyon.

7 Late in 2015, methane began leaking from the  
8 largest natural gas reservoir in the state. As soon as we  
9 were informed of the leak, ARB staff began to coordinate  
10 efforts to measure the emissions from the leak as part of  
11 a multi-agency response. Measurements of the total leak  
12 rate from the facility are being made with the same  
13 monitoring system and technology we've been using to  
14 measure methane emissions as part of our greenhouse gas  
15 emissions research.

16 ARB is posting weekly results from air flights  
17 with methane monitors through the plume of leaking gas.  
18 And to date, we estimate the total emissions to be  
19 approximately two million metrics tons of CO<sub>2</sub>e. This  
20 preliminary estimate will be refined over time with  
21 additional data and analysis by JPL, NASA, UCs, and the  
22 Japanese Space Agency.

23 The Governor has directed ARB to develop a plan  
24 for the gas company to fully mitigate the greenhouse gas  
25 emissions from the leak. The measurements we are making





1 on this project.

2 --o0o--

3 EXECUTIVE OFFICER COREY: There's a lot to be  
4 excited about in 2016. It's going to be a very  
5 significant year for us, and the transformation and  
6 integration of technology, systems, and fuels  
7 infrastructure has already started. My last few slides  
8 highlight just a few of these innovations.

9 --o0o--

10 EXECUTIVE OFFICER COREY: New vehicle  
11 technologies are being rolled out to the public at an  
12 increasing pace. Retail sales of fuel cell vehicles were  
13 launched in California during 2015. In fact, Chair  
14 Nichols just took possession of a Toyota Mirai. Longer  
15 range battery electric vehicles are coming to the market  
16 that are cost competitive with gasoline fueled vehicles.

17 Autonomous and connected vehicle technology is  
18 becoming standard on new car models. This technology has  
19 the potential to delivery enormous gains in safety, while  
20 also reducing traffic congestion, and improving fuel  
21 efficiency.

22 --o0o--

23 EXECUTIVE OFFICER COREY: The firs retail sale of  
24 hydrogen happened in California. We were the first in the  
25 world to certify a station to cell hydrogen fuel to the

1 public. DC fast-charging stations are dramatically  
2 expanding in California, and we're seeing increasing  
3 volumes of renewable fuels.

4 --o0o--

5 EXECUTIVE OFFICER COREY: Smart logistics are  
6 transforming goods movement in California. Examples  
7 include automated shipping terminals, such as middle  
8 harbor at the Port of Long Beach. In the light-duty  
9 sector, more transportation sources are available than  
10 ever before. The option to share a car, use on-demand  
11 mobility services, take transit, ride a bike or walk is  
12 resulting in new choices in personal mobility. The  
13 expanded travel choices are being incorporated into  
14 Sustainable Communities Strategies.

15 --o0o--

16 EXECUTIVE OFFICER COREY: We're entering a newer  
17 era of technology, fuels, and systems that are evolving  
18 more quickly and ever before. And as noted, we're already  
19 beginning to see that transformation occur. Continued  
20 implementation of our core programs will be essential.  
21 Providing a foundation for deploying cleaner technologies,  
22 but also serving as a blueprint for successful approaches,  
23 but we'll also need to take a look at creative new  
24 solutions.

25 Therefore, this will be a pivotal year for

1 mapping out a vision for putting us on a track to meet our  
2 air quality and climate goals and developing an integrated  
3 framework for our planning process. This will provide  
4 tremendous opportunities to continue to lead the nation  
5 and the world on how to achieve clean air, slow global  
6 warming, and thrive economically. We're looking very  
7 forward to working with you to get there.

8 That concludes my remarks.

9 VICE CHAIR BERG: Thank you very much, Mr. Corey.  
10 Once again, a very thorough and impressive review for the  
11 year. And quite frankly, I don't know about my fellow  
12 Board members, but it always gives me pause to take a deep  
13 breath to say, okay, stay calm --

14 (Laughter.)

15 VICE CHAIR BERG: -- we're going to be able to  
16 tackle all of this, as we have more and more complicated  
17 things to look at, more integrated, the need to work  
18 closer with our sister organizations, develop these  
19 relationships. These are complicated times, and we  
20 certainly want to commend you and our staff. We have a  
21 great deal of confidence and a great team up here. We do  
22 have three people that would like to make comments. So  
23 before I go to the Board, I'm going to take those three  
24 speakers. And you'll see your name up here, and we'll  
25 start off with Katie.

1 MS. GARCIA: Good morning. My name is Katie  
2 Valenzuela Garcia. I'm here today on behalf of your  
3 Environmental Justice Advisory Committee. And first, I  
4 just want to say that I do respect your commitment and the  
5 commitment of Executive Officer Corey and staff the  
6 pursuit of environmental justice. And it's out of that  
7 respect and by request of my fellow EJAC members that I'm  
8 here today.

9 I've submitted a letter for your review. This  
10 letter was submitted to staff yesterday regarding the  
11 timeline for 2030 target scoping plan development. This  
12 letter was drafted by me in response to concerns the EJAC  
13 expressed to staff at our first meeting on December 7th,  
14 2015. And it was approved by the entire EJAC at our  
15 January 6th meeting, and has since been joined by many of  
16 our environmental justice partners including Breathe  
17 California, the California Environmental Justice Alliance,  
18 the Central California Environmental Justice Network, the  
19 Coalition for Clean Air, Public Advocates, and the South  
20 Oak Park Community Association here in Sacramento.

21 In short, we are requesting a longer timeline to  
22 allow for sufficient public outreach, and specifically to  
23 allow for the EIR to start after the plan has received at  
24 least two rounds of public comment. We think that this is  
25 a very reasonable request, and that it's actually

1 essential to our ability to fulfill the duty that we've  
2 been charged by you and by AB 32.

3 I've really appreciated the opportunity to  
4 discuss this proposal with staff and with Executive  
5 Officer Corey. And I do believe we can find a solution,  
6 but time is of the essence. Our next meeting is February  
7 5th, and we would appreciate the ability to plan our  
8 activities accordingly. And so we would like a rapid  
9 resolution to this request.

10 And with that, I am available for your questions  
11 or discussion, and I appreciate your time.

12 Thank you.

13 VICE CHAIR BERG: Thank you very much. Before  
14 you leave, I think I'll have Mr. Corey. I know that the  
15 two of you had an opportunity to meet. And if you could  
16 just brief the Board a little bit about our approach, and  
17 certainly thank you very much for your service and the  
18 importance of your committee. So we really appreciate you  
19 getting in touch with Mr. Corey as well.

20 MS. GARCIA: Thank you.

21 EXECUTIVE OFFICER COREY: Yes. Thank you, Vice  
22 Chair, and thank you, Katie. We actually had a very good  
23 conversation. It was an opportunity to walk through, one,  
24 the key role, a really very important role, that EJAC is  
25 playing in this process, and will play throughout with the

1 concern expressed in terms of the timetable for the  
2 scoping plan, which is tight. You know, it laid out at a  
3 time frame that had a draft coming out in the -- prior to  
4 the May time frame.

5           What we're doing, and the commitment that I made,  
6 was recognizing process is going to be key on this thing.  
7 There's just no doubt about that, in terms of EJAC's input  
8 and the range of other stakeholders that are going to have  
9 something to say on this plan. It's going to be a plan  
10 that is comprehensive and tells a clear story to how we're  
11 going to get to a 2030 target.

12           My commitment was to go back to staff, sit down  
13 with Katie and her folks, and look at some adjustments to  
14 the schedule, and go into that conversation recognizing  
15 that adding some additional steps, both the process,  
16 probably another workshop, and some additional time is  
17 something we are committed to do. So bottom line is we  
18 just need to sit down and work through the adjustments to  
19 the schedule.

20           VICE CHAIR BERG: Understanding that in the  
21 process and adding time, along with the EIR, there is,  
22 from beginning to end the more time we add in the middle,  
23 we're going to delay our ability to get this approved, is  
24 that correct?

25           EXECUTIVE OFFICER COREY: That is correct. In

1 fact, the concern of -- thanks for the follow-up question.  
2 The concern, and I was straight up with the group that was  
3 asking for an additional year, I said I think that's too  
4 long, because I actually think it puts off future actions,  
5 but I also believe that there's a compromise that we can  
6 work on that meets the objective of moving forward on a  
7 plan, so we can execute on the measures, making sure that  
8 we have a fair, open, and really a robust public process,  
9 and strike that balance.

10           So that's -- that is where the follow-up  
11 conversation is going to go, where can we make some  
12 adjustment to the schedule, keeping in mind the need to  
13 get the -- a scoping plan in front of the Board.

14           VICE CHAIR BERG: Well, I'm real really  
15 encouraged and really appreciate, Katie, your group, and  
16 the importance it is to this Board. And I really want to  
17 encourage our staff and whatever we can do as several  
18 Board members up here are very in tuned with the goal  
19 here. It's going to be meaning -- doing a little bit more  
20 work, and maybe extending the time, but getting the job  
21 done right.

22           And so we want to make sure to stay in touch with  
23 you. And so however we can do that, please use us. And  
24 I'll leave it to staff that you've got a lot of things on  
25 your plate, but this is an important issue, just as you

1 outlined, Mr. Corey, and we'll get this done.

2 MS. GARCIA: Thank you.

3 VICE CHAIR BERG: Thank you, Ms. Garcia.

4 MS. RASBERRY: Good morning, Board. My name is  
5 Tamara Rasberry. I'm from the Sempra Energy utilities,  
6 SoCalGas and the Southern California Gas Company. I just  
7 wanted to make some brief comments on the Aliso Canyon  
8 natural gas leak. I thank Mr. Corey for his brief update.  
9 A lot of people here have had updates recently.

10 And just for the Board's knowledge and for the  
11 public, that SoCalGas announced that our relief well  
12 project to stop the Aliso Canyon gas leak is proceeding  
13 ahead of schedule. We are looking towards late February  
14 to be able to cap the leak.

15 Recently, ARB monitoring data showed the  
16 estimated emissions had decreased by more than 60 percent  
17 since the previous estimates by ARB on November 28th. And  
18 SoCalGas is working within the community with all State,  
19 local, and federal agencies to make sure that the  
20 community is safe and protected, and the gas leak is  
21 stopped and contained as soon as possible.

22 And I'm available for any questions. Thank you.

23 VICE CHAIR BERG: Thank you for coming.

24 And Shelly Sullivan.

25 MS. SULLIVAN: Good morning, Board. Thank you

1 for having me make a few comments today. I was really  
2 encouraged by Mr. Corey's presentation, and the fact that  
3 cap-and-trade was going to -- is focusing on that, and  
4 that we're moving forward. The Climate Change Policy  
5 Coalition is always very encouraged when we can have a  
6 very broad market.

7 As you know, Washington has recently released its  
8 proposed draft regulation that creates a Cap-and-Trade  
9 Program. However, Washington doesn't have the legal  
10 authority to conduct auctions, and provide allowances in  
11 their draft regulation, so Washington is now telling their  
12 regulated communities that they would be allowed to buy  
13 allowances, California offsets and allowances, and RGGI  
14 allowances.

15 And so by purchasing those, we're wondering what  
16 kind of effect that will have on the California market,  
17 and are we going to have workshops to figure out the  
18 economics and what's going to be going on, and how that  
19 does affect the market?

20 VICE CHAIR BERG: Okay. Great. I will refer  
21 that to staff. But are you done with the rest of your  
22 testimony?

23 MS. SULLIVAN: Yeah, I was just wondering about  
24 are we going to have public workshops, and, you know, what  
25 is, you know, ARB staff thinking on their conversations

1 with Washington and allowing Washington to, I guess, have  
2 a one-way linkage, if you will.

3 VICE CHAIR BERG: Thank you very much, Ms.  
4 Sullivan.

5 Staff. Good morning.

6 DEPUTY EXECUTIVE OFFICER CHANG: So we have seen  
7 the Washington proposal. It's actually sort of for a  
8 facility level cap. And as Ms. Sullivan said, there are  
9 no allowances in the Washington program, but they do look  
10 at some mechanisms to allow reductions to come in from  
11 programs like California and RGGI. We've been in contact  
12 the Washington staff as they've been developing their  
13 program, and we are talking with them about what sorts of  
14 assumptions we could use to estimate what the potential  
15 impacts would be on our program.

16 And I think that as part of the regulatory  
17 development that's something that would come through, as  
18 we look at potential economic impacts on our program as  
19 well.

20 VICE CHAIR BERG: What type of time frame is --  
21 are we looking at on this?

22 DEPUTY EXECUTIVE OFFICER CHANG: Washington, I  
23 think is looking. I'm trying to remember exactly when  
24 they're look to finalize, but it's relatively quickly. I  
25 think it's probably in the next several months.

1           VICE CHAIR BERG: And how are we going to  
2 communicate what we have found out from staff and the  
3 impacts of this?

4           DEPUTY EXECUTIVE OFFICER CHANG: We're in a  
5 regulatory process right now for the Cap-and-Trade  
6 Program. And I think as part of some of those public  
7 processes and workshops, we can have those conversations  
8 with stakeholders.

9           VICE CHAIR BERG: Great.

10          MR. SULLIVAN: So we'll have an economic analysis  
11 and the results of that?

12          DEPUTY EXECUTIVE OFFICER CHANG: We'll look at  
13 what the impact is on our program.

14          MS. SULLIVAN: Great. Thanks, Edie. Thank you.

15          VICE CHAIR BERG: Thank you very much.

16          With that, is there anybody Board comment on this  
17 item?

18          Professor Sperling.

19          BOARD MEMBER SPERLING: I have one big thought  
20 and one little thought.

21          The big thought is I want to add that this is  
22 extraordinarily impressive. What we're doing and what --  
23 you know, everything -- everyone is watching what we do in  
24 terms of climate change, as well as air pollution. And  
25 the list of programs and activities and incentives and

1 regulations it really is a model and shows leadership, but  
2 it's also -- the partnership part of it is so critical as  
3 we just heard with Washington that we are forging these  
4 partnerships with our different programs, as we move  
5 forward.

6           So it really is scary and exciting. What we're  
7 doing here, and it's very impressive how staff has done  
8 such a good job of being careful. You know, we're  
9 analyzing the economic impacts every step of the way, the  
10 other kinds of -- the EJ impacts and other social impacts.  
11 That's the big idea.

12           The little idea is I want to add to the praise of  
13 Chair Nichols as a leader in her actions in getting a  
14 hydrogen car, and note that this afternoon if we end this  
15 Board meeting early enough, I will be getting my hydrogen  
16 car following in her footsteps. And I would note the  
17 Board here, you know, we -- the majority of the Board has  
18 electric vehicles, and I've had electric and hybrid  
19 vehicles since 2000. And so we are walking the talk up  
20 here.

21           VICE CHAIR BERG: Thank you.

22           Supervisor Gioia.

23           BOARD MEMBER GIOIA: I just want to sort of add  
24 to your comments that this is all very impressive, but I  
25 wanted to also add the note that it is important to

1 continue, I'll call it, an aggressive time frame to  
2 continue moving forward with this momentum, because as we  
3 continue to face those who will try to derail this effort,  
4 the quicker we continue this work, and embed this work,  
5 and drive technology change, the harder it is to turn back  
6 the clock.

7           So I know those who have said can we slow down  
8 the process a bit? And I appreciate Mr. Corey said we'll  
9 work with the stakeholders with the comment that was made  
10 from one of the EJ members. And at the same time, we're  
11 continuing this work aggressively, because there are  
12 continual efforts to try to slow it down, and derail it.

13           And we've recognized that the quicker this gets  
14 enacted and implemented, the harder it is to turn it back.  
15 So I just wanted to add that. And, yes, I drove up here  
16 in my fully electric Nissan Leaf.

17           (Laughter.)

18           VICE CHAIR BERG: Thank you very much.

19           Mr. De La Torre.

20           BOARD MEMBER DE LA TORRE: Thank you. I want to  
21 echo those comments. I've twice now gone out and spoken  
22 to the public about our agenda for this year. And, A,  
23 when I got that agenda, I was surprised, you know,  
24 startled. There is so much that we're going to be doing  
25 this year.

1           And the reaction that I get -- that I got both  
2 times in presenting this to those audiences was absolutely  
3 supportive to John's point that we're doing all of this,  
4 that they want us to do these things. And, of course,  
5 we're going to follow all of the steps we need to. And,  
6 you know, the wonderful thing about this Board is when we  
7 see something not quite right, we're always willing to  
8 adjust along the way, always willing to do that.

9           But this agenda for this year, in my time on this  
10 Board, is absolutely the most aggressive that I've seen,  
11 and it's going to be a tough year, but I'm very, very  
12 optimistic we're going to power through most of it, and  
13 we're going to do what needs to be done on GHG, on  
14 criteria pollutants for the people of California. So I'm  
15 very excited, but I'll tell you the first time I saw it, I  
16 was a little bit in shock, but it's worn off now --

17           (Laughter.)

18           VICE CHAIR BERG: We're raring to go.

19           BOARD MEMBER DE LA TORRE: -- and ready to work.  
20 Thank you.

21           VICE CHAIR BERG: Thank you. I'd like to bring  
22 this item to a close by thanking our Executive Director,  
23 Mr. Corey. Your leadership is outstanding. I think I can  
24 speak on behalf of my fellow Board members that we are not  
25 only grateful, but very, very thankful that we have you as

1 our Executive Director. Your team is outstanding. You're  
2 building terrific leadership within our group. And so  
3 this is a great time to say thank you very much for all  
4 you did in 2015. And we look forward to working with you  
5 and supporting all of our efforts in 2016. And so --

6 BOARD MEMBER BALMES: I'll second that.

7 VICE CHAIR BERG: Oh, thank you.

8 Okay. With that, we'll move on to our next item.  
9 Give staff a chance to populate their chairs. And with  
10 that, I'll go ahead and introduce the next item.

11 Item number 16-1-6 is an informational update on  
12 ARB and the State's sustainable freight effort. Governor  
13 Brown's recent Executive Order directing the State to  
14 develop a multi-agency California Sustainable Freight  
15 Action Plan recognizes the essential leadership for the  
16 role of the State. It communicates California's strong  
17 unified commitment to improving our freight transport  
18 system and motivates a broad participation of public and  
19 private entities in the Sustainable Freight Action Plan  
20 development and implementation.

21 I'm firmly convinced that the long-term strategy  
22 and the success of that strategy and the effort should be  
23 judged not only on meeting our public health and climate  
24 goals, but also by advancing our mobility, safety,  
25 economic objectives. These goals and the objectives are

1 interdependent and the success of one truly depends on the  
2 success of all.

3 Efficiency strategies are one of the keys that  
4 can advance all of those goals and objectives. They  
5 provide positive air quality impacts a business benefit to  
6 industry, and improvement for the operation of our  
7 transportation infrastructure.

8 Many of these opportunities fall outside the  
9 purview of government. So we will continue to look to the  
10 freight industry's effort for truly their leadership on  
11 system-wide efficiency improvements.

12 Thanks to Dr. Sperling and his freight efficiency  
13 think tank, we are making progress with the group of  
14 industry and academic advisors to identify potential  
15 system-wide strategies.

16 I'm excited about the progress that our State  
17 partners' work on truly an integrated effort. And as we  
18 all know, when we cross these -- into these partnerships,  
19 this takes a lot of effort.

20 The integrative approach is new and is  
21 challenging, but I'm truly confident that it will be  
22 effective. Working together to find common solutions to  
23 California complex freight transport challenges will  
24 result in crucial improvements that truly address multiple  
25 objectives.

1           Today, our discussion will focus on the progress  
2 ARB has made this year, meaning in 2015, on reducing  
3 emissions from the freight transport system and  
4 alleviating air quality impacts, consistent with the  
5 actions items that ARB's sustainable freight pathways  
6 document stated.

7           Staff will also provide an update on the State  
8 agency's joint effort to meet the Governor Brown's  
9 Executive Order. And I'm sure when we hear the State of  
10 the State address that is happening this morning, that  
11 there will be even more passion behind this effort.

12           In the companion items to follow, staff will  
13 focus on ARB's near-term actions taken last year, 2015, to  
14 strengthen our enforcement and compliance effort in the  
15 communities most affected by freight pollution. This will  
16 really be a two-part update. First, we'll hear an update  
17 under the actual plan, and then we'll hear an update on  
18 the enforcement.

19           Mr. Corey, would you please introduce this item.

20           EXECUTIVE OFFICER COREY: Yes. Thanks, Vice  
21 Chair.

22           With the help of our private and public partners,  
23 we're seeing real world benefits of our efforts. A 75  
24 percent drop in statewide diesel particulate matter  
25 emissions from the freight sector since 2005 and

1 measurably cleaner air in port and railyard communities.

2           Yet, with that, the cancer risks remain  
3 unacceptably high, especially in disadvantaged communities  
4 near major freight facilities. Attainment of federal  
5 ozone and particulate matter standards compels significant  
6 additional emission reductions in the South Coast, San  
7 Joaquin valley and Sacramento. And meeting our 2030  
8 climate target also requires further action from this  
9 growing sector.

10           At the same time, California's ability to  
11 maintain the economic engine of freight transport is  
12 challenged by competition from other regions in North  
13 America. Whether moving consumer goods through the  
14 E-commerce supply chain or bringing California's  
15 agricultural products to market, our transportation  
16 infrastructure needs improvement too.

17           The sustainable freight pathways to zero and near  
18 emission reductions document was presented to the Board  
19 and released this past April. Since then, staff has made  
20 progress on initiating and implementing the immediate and  
21 near-term actions in that discussion document. In  
22 addition to the enforcement actions that you'll hear about  
23 during the following item, incentive programs have  
24 provided immediate air quality and public health benefits  
25 this year.



1 Action Plan.

2 --o0o--

3 MS. LIER: First, I will provide some context for  
4 the State freight system. You may recall from the April  
5 update that the freight dependent industries contribute to  
6 about one-third of the California economy and California  
7 jobs. In addition to providing economic benefits to the  
8 State, freight activities in California are expected to  
9 increase over the coming decade. By 2025, freight  
10 movement is projected to increase in volume by  
11 approximately 25 percent and increase in commodity value  
12 by 60 percent from 2012.

13 --o0o--

14 MS. LIER: In the last Board discussion, there  
15 were questions about where the cargo comes from. To learn  
16 more about this, we have analyzed data provided by the  
17 U.S. Department of Transportation and the freight analysis  
18 framework. This commodity flow database contains freight  
19 movement information by mode, commodity, and origin  
20 destination zones that is characterized as moving from,  
21 to, within, and through California.

22 From this, we have learned that while freight  
23 movement at our ports of entry is important, the majority  
24 of freight movement is happening within California.  
25 Understanding how freight moves now and in the future is

1 key in meeting our air quality objective.

2 --o0o--

3 MS. LIER: The freight industry has made  
4 substantial investments to transition its equipment to  
5 cleaner models. And California is seeing the real-world  
6 measurable benefits of those investments. However, the  
7 scope of emission reductions required to meet California's  
8 mandates is vast. The freight transport system accounts  
9 for about half of toxic diesel particulate matter, 45  
10 percent of the emissions of NOx, and six percent of the  
11 greenhouse gas emissions in the State.

12 Looking ahead, emissions from the freight  
13 transport sectors will continue to decline over the next  
14 decade as adopted controls are fully implemented, and then  
15 begin to increase as growth and activity overcomes the  
16 benefits of the existing controls.

17 This confirms the importance of improving the  
18 system to achieve our public health, air quality, and  
19 climate change goals. We must move towards a sustainable  
20 freight transport system that relies on equipment with  
21 zero tailpipe emissions everywhere possible and near zero  
22 technologies powered by clean, low carbon renewable fuels  
23 everywhere else.

24 --o0o--

25 MS. LIER: To make this change, we need well

1 coordinated actions to transition to a less polluting,  
2 more efficient, and modern freight transport system. In  
3 April of last year, we released the Sustainable Freight  
4 Pathways document to describe ARB's vision and potential  
5 levers to achieve a more efficient, cleaner freight  
6 system. The pathways document identifies immediate  
7 actions, near-term measures, a long-term vision for each  
8 equipment category, and broad based measures under  
9 consideration. Over the next few slides, I will provide  
10 an update on the activities undertaken thus far.

11 --o0o--

12 MS. LIER: I will begin with the immediate  
13 actions. Last year, staff initiated actions to enhance  
14 enforcement and deploy incentives to deliver new emission  
15 reductions, and further reduce health risks in impacted  
16 communities. Enforcement staff will provide an update on  
17 the expanded enforcement efforts during the next item, so  
18 I will focus on incentives.

19 The State funded incentive programs administered  
20 by ARB and the local air districts introduced over 1,400  
21 new trucks and locomotives in 2015. These include zero  
22 emission and hybrid trucks, as well as diesel and natural  
23 gas trucks meeting the latest standards, and locomotives  
24 that are replacing older, higher-emitting models. These  
25 projects cumulatively reduce approximately 10 tons of

1 particulate matter and 980 tons of NOx annually.

2 --o0o--

3 MS. LIER: Next, I will talk about the near-term  
4 actions. They focus on both cleaner combustion  
5 technologies and introduction of zero emission equipment.

6 --o0o--

7 MS. LIER: As Mr. Corey mentioned during his  
8 presentation, there are several regulatory actions  
9 underway. In addition, what we have in the pipeline now  
10 will ensure durability, in-use performance, and  
11 certification flexibility. They are expected to go to the  
12 Board for consideration this year and next.

13 Staff is also in the process of assessing the  
14 State's authority regarding warrantee repair facilities.  
15 There have been a number of exciting developments this  
16 year in relation to trucks. First, ARB has certified a  
17 low NOx natural gas engine that uses a catalyst to meet  
18 0.02 grams per brake horsepower hour emission level.

19 Second, fleets have shown interest in replacing  
20 their engines with cleaner technology. During the  
21 district's Proposition 1B solicitation last year, fully  
22 half of the applications received were for low NOx and  
23 zero emission trucks.

24 --o0o--

25 MS. LIER: In addition, Staff has also been

1 pursuing actions for cleaner truck emission standards, as  
2 discussed by Mr. Corey. To support these efforts, ARB has  
3 contracted with Southwest Research, who is working with  
4 the Manufacturers of Emission Controls Association and its  
5 members to demonstrate both natural gas and diesel-fueled  
6 engines that achieve low NOx emissions. We expect results  
7 at the end of this year.

8 --o0o--

9 MS. LIER: Next, is our work regarding ocean  
10 going vessels. Staff has approved two alternative  
11 technologies to capture and control vessel emissions at  
12 berth. Not only do these new technologies help offer  
13 flexibility to vessel fleets to meet the requirements of  
14 ARB's at-berth regulation, these also support potential  
15 expansion of the regulation to include more vessel fleets  
16 and types.

17 Staff is meeting with stakeholders and is in the  
18 process of developing amendments to the regulation to  
19 address implementation issues, and expand the scope to  
20 capture additional emissions from marine vessels. This is  
21 especially critical in cutting NOx emissions in the South  
22 Coast Air Basin.

23 In addition, we are adding advocacy with other  
24 states and countries to garner support for marine  
25 controls, new international maritime organization tier 4

1 standards, and efficiency targets for existing vessels and  
2 ship energy efficiency management plans. Staff will also  
3 be working to define the criteria for a super low emission  
4 efficient ship and enhance seaport incentive programs to  
5 help increase the number of cleaner ships visiting  
6 California ports.

7 --o0o--

8 MS. LIER: For locomotives, staff will be  
9 preparing a petition to U.S. EPA this year asking for the  
10 next phase of cleaner national emission standards. After  
11 further analysis since the April pathways document, we  
12 will also petition EPA to tighten the requirements for  
13 remanufactured engines, so that they are upgraded to the  
14 current tier 4 emission levels.

15 New developments, such as the compact selective  
16 catalytic reduction system for existing locomotives shows  
17 potential to reduce emissions and supports a remanufacture  
18 requirement to tier 4.

19 In addition to actions that promote cleaner  
20 combustion, staff has also been developing actions to  
21 accelerate the use of zero emission technologies in  
22 freight sectors.

23 --o0o--

24 MS. LIER: We have heard proposals in particular  
25 from our ports, to be early adopters and test out zero

1 emission technology. Staff has been working to provide  
2 resources for stakeholders to implement these  
3 technologies. One mechanism we are using is advocating  
4 for zero emission vehicles at new and expanded freight  
5 hubs during the planning and project development stages.  
6 We are also looking for opportunities to maximize zero  
7 emission technology and potential pilot projects under the  
8 California Sustainable Freight Action Plan, which will be  
9 discussed later in the presentation.

10 In addition to our incentives progress that you  
11 heard about earlier, staff is pursuing demonstration  
12 projects as an avenue to promote zero emission technology  
13 in freight applications. In June 2014, the Board approved  
14 nearly \$50 million for zero emission freight demonstration  
15 projects. The Low Carbon Transportation Program opened  
16 solicitations for a zero emission drayage truck  
17 demonstration project, and a multi-source facility  
18 demonstration project. The objective of these projects is  
19 to demonstrate full zero emission and zero emission  
20 capable drayage trucks, as well as zero and near zero  
21 emission equipment and vehicles at a seaport. Both of  
22 these projects will benefit disadvantaged communities.

23 --o0o--

24 MS. LIER: Staff has also been pursuing zero  
25 emission technology through development of the zero



1 a need to reduce emissions beyond the near-term measures.  
2 As the Board is aware, our risk assessments have shown  
3 that freight hubs are a source of localized health risk.  
4 Most of our regulations focus on a specific type of  
5 equipment like trucks or cargo handling equipment,  
6 regardless of where it operates. The risk assessments  
7 show we need to address the total emissions at hubs.

8 As staff continues to pursue near-term measures  
9 that promote cleaner combustion and zero emission  
10 technologies, we are also working to gather data necessary  
11 to inform new strategies. These may include incentives,  
12 enforceable agreements, stronger fleet rules, efficiency  
13 improvements, and a facility emissions cap-based approach.

14 Staff has identified data gaps for freight  
15 facilities, such as border crossings, seaports, airports,  
16 warehouse and distribution centers, railyards and truck  
17 stops. You will draft a survey and discuss it with  
18 stakeholders prior to release this spring.

19 --o0o--

20 MS. LIER: An integrated State planning effort is  
21 integral to achieving California's public health, air  
22 quality, and climate change goals.

23 --o0o--

24 MS. LIER: Executive Order B-32-15, which was  
25 signed by Governor Brown, provides direction on how

1 California will ensure progress towards a sustainable  
2 freight transport system. The Executive Order calls for  
3 the development of an integrated action plan by July.  
4 This plan must establish targets, include State policies,  
5 programs, and investments to meet the targets, and include  
6 potential corridor level freight pilot projects that will  
7 demonstrate progress towards a sustainable freight system.

8 The Secretaries for Transportation, Environmental  
9 Protection, and Natural Resources are leading ARB, the  
10 California Department of Transportation, the California  
11 Energy Commission, and the Governor's Office of Business  
12 and Economic Development in the development of the  
13 California Sustainable Freight Action Plan.

14 --o0o--

15 MS. LIER: Existing documents will serve as the  
16 foundation for the development of the action plan,  
17 including the sustainable freight: Pathways document,  
18 ARB's technology and fuels assessments, Natural Resources  
19 Agency's Safeguarding California; Caltrans' *California*  
20 *Freight Mobility Plan*, and the California Energy  
21 Commission's *Integrated Energy Policy Report*.

22 Broad stakeholder input is also a foundation for  
23 the action plan development. Since the commencement of  
24 the action plan effort in July of last year, we have held  
25 approximately 80 meetings with stakeholders, and

1 participated in the California Freight Advisory Committee,  
2 industry work groups, and held a public webinar in October  
3 to introduce the effort to the public.

4 --o0o--

5 MS. LIER: In addition, there are several  
6 planning efforts underway or recently completed that  
7 closely relate to the action plan effort. This includes  
8 ARB's mobile source strategy for the State Implementation  
9 Plan, the 2030 Target Scoping Plan Update, and the  
10 Short-Lived Climate Pollutant Reduction Strategy, as well  
11 as Caltrans California Transportation Plan 2040.

12 The transportation plan provides a long range  
13 policy framework to meet future mobility needs and reduce  
14 greenhouse gas emissions. The action plan will include  
15 recommendations that complement and support the goals and  
16 strategies in these State planning efforts.

17 --o0o--

18 MS. LIER: So what exactly will be in the action  
19 plan?

20 Currently, staff is working to include five main  
21 elements: A long-term vision, guiding principles, 2030  
22 targets, potential agency actions, and potential corridor  
23 level pilot projects. Over the next few slides, I will  
24 provide a quick update on the multi-agency team's current  
25 thinking for these elements.

1                   --o0o--

2           MS. LIER: The multi-agency group has worked  
3 together to develop the statewide vision for the  
4 sustainable freight transportation system on this slide.  
5 In addition, the guiding principles will help prioritize  
6 State resources to support actions to achieve the 2050  
7 vision.

8                   --o0o--

9           MS. LIER: The Executive Order also calls for  
10 clear targets on freight efficiency, zero emission  
11 technologies, and competitiveness. Through the  
12 multi-agency work and outreach conducted so far, we have  
13 developed draft targets that address each of these  
14 objectives. The efficiency target builds upon a previous  
15 Caltrans target. Caltrans is also currently developing a  
16 metric that can be used to measure progress toward the  
17 target.

18           The technology target reflects ARB's objectives  
19 in the pathways document for zero and near zero emission  
20 technologies. The 100,000 figure anticipates that  
21 multiple types of vehicles and equipment capable of  
22 operating with zero emissions will be in California's  
23 fleet by 2030.

24           The Governor's Office of Business and Economic  
25 development, or Go Biz, is part of the multi-agency team.

1 The team wrestled with an economic indicator to respond to  
2 the executive order calling for a competitiveness target.  
3 Go Biz concluded that the State cannot influence  
4 competitiveness because that depends on many factors  
5 unique to each individual business. Instead, the priority  
6 should be to clearly identify each proposed State action  
7 and the potential costs and benefits on industry sectors.

8           Go Biz has encouraged freight logistics companies  
9 to carefully review the State's economic analysis, and to  
10 do their own cost estimates for comparison. In addition  
11 to the potential cost, there will be economic benefits  
12 from the State's investment and opportunities to support  
13 local economic development, for example, through the pilot  
14 projects.

15                               --o0o--

16           MS. LIER: Potential actions that will help  
17 advance progress towards the 2030 freight goals will  
18 include State policies, programs, and investments. Many  
19 of the actions will be carried over from existing plans.  
20 Others will be new concepts based on review of gaps in the  
21 State's existing strategies and from outreach conducted so  
22 far.

23           These include: Advanced technologies such as  
24 zero and near zero emission engines and vehicles,  
25 information technology systems, and vehicle to grid





1 Bay ports to facilitate use of advanced technologies, and  
2 a clean truck fast lane at the U.S.-Mexico border to  
3 reduce the miles-long queue of trucks that idle while  
4 waiting to cross the border.

5 Staff expect to include one to three pilot  
6 projects in the final plan along with the actions each  
7 agency can take to support the pilot projects.

8 Those actions may include things like helping to  
9 build partnerships and support technical analysis and  
10 funding. In regards to funding, and we get a lot of  
11 questions about this, to date, no funding has been  
12 dedicated for these pilot projects. However, Caltrans,  
13 ARB, and the California Energy Commission have funding  
14 that may be able to support the pilot projects consistent  
15 with the requirements for each fund source.

16 --o0o--

17 MS. LIER: Moving forward, the State partners  
18 will hold workshops on January 26th, January 28th, and  
19 February 2nd at several locations throughout California,  
20 followed by a webinar on February 5th. During the  
21 workshops and webinar, the team will provide an overview  
22 of the process for preparing the California Sustainable  
23 Freight Action Plan and seek input on its envisioned  
24 content.

25 In particular, we will discuss the current draft

1 of the vision, targets, metrics to measure the targets,  
2 potential actions, and pilot project concepts. Staff  
3 anticipates releasing a public comment draft in the  
4 spring. And we will return in May to provide you with an  
5 informational update.

6 The final plan will be transmitted by the Agency  
7 Secretaries to the Governor's office in July of 2016.

8 --o0o--

9 MS. LIER: Thank you for your time.

10 VICE CHAIR BERG: Thank you very much.

11 First, do Board members have any questions?  
12 We're going to hear our list of witnesses after any  
13 clarifying questions, and then we'll come back for Board  
14 discussion.

15 Ms. Mitchell.

16 BOARD MEMBER MITCHELL: Thank you. Thank you for  
17 a very thorough report. One thing I'm very concerned  
18 about in the port operations is the efficiency issue. And  
19 I'm very proud that next to me is Professor Sperling who's  
20 working on that issue. I'm wondering what ARB will do?  
21 What will our staff be doing to address efficiency  
22 problems at ports?

23 FREIGHT TRANSPORTATION BRANCH CHIEF ARIAS: Good  
24 morning, this is Heather Arias. And I will try to help  
25 answer that question a little bit.

1           As we've talked about, Dr. Sperling has convened  
2 this group of academia and stakeholders. And the  
3 objective of the group is to analyze and be able to  
4 identify various system efficiency opportunities in the  
5 State. They are then going to help us to be able to  
6 identify actions that we can help to implement and achieve  
7 those efficiencies.

8           Those actions could be actions that we as State  
9 agencies can take, it could be actions that they take,  
10 partnerships that are built, a whole gamut of things that  
11 we're discussing with them. So we do hope to be able to  
12 identify some partnership opportunities that ARB can also  
13 help in. Parts of those can be our work with advancing  
14 the engines and equipment technologies and supporting  
15 things like ITS.

16           We'll definitely have a much better layout for  
17 you in the April document, once we've been able to  
18 complete the work with that efficiency group.

19           BOARD MEMBER MITCHELL: Thank you. So I recently  
20 attended the Transportation Research Board's conference in  
21 Washington, of which Professor Sperling was the president  
22 last year. And the South Coast District had a panel there  
23 that included people from the ports. And I've had  
24 discussion with many of those from the ports as well. So  
25 here's one of the problems, and this we have to work this

1 out with the port authorities, because we can't do this  
2 alone.

3           There are a lot of inefficiencies in the Port of  
4 Long Beach and Los Angeles. And a lot of those deal with  
5 the relationship between the truck driver, getting the  
6 chassis for that truck, then finding the container for  
7 that truck, and working it out with the beneficial cargo  
8 owners. There is a program called Cargomatic, which is  
9 like Uber for containers. But the beneficial cargo owners  
10 don't trust just anybody to pick up their container, and  
11 so they want to work with drivers that they know, so that  
12 there is this relationship of trust that has to occur.

13           So just to give you an idea of the logistics  
14 problems that we face in the ports, and it really is a  
15 difficult issue to even work with, because you have these  
16 interpersonal relationships going on too among the port  
17 operators.

18           So I'm imagine that Dr. Sperling has looked at  
19 some of these issues, but it's not going to be easy to do  
20 this.

21           FREIGHT TRANSPORTATION BRANCH CHIEF ARIAS: Yeah.  
22 We completely agree with you. And the ports are key to  
23 all of this process, and have been very involved with us  
24 along with the air districts. And in order to be able to  
25 achieve the efficiency gains in this action and moving

1 forward with all of our actions, building the  
2 partnerships, and being able to have that partnership with  
3 the public-private, as well as the other agencies, is  
4 going to be absolutely critical, especially when we're  
5 talking about things like ITS systems and big data gaps  
6 and being able to figure out how we can all work together.

7           So they are huge challenges, which is exactly why  
8 we asked Professor Sperling to help us convene this group  
9 and bring the best of the best in and help us from all of  
10 the different expertise, and the academia to be able to  
11 help us plow through and figure out how can we do this  
12 together.

13           So we are very optimistic that we are going to be  
14 able to come out the other end of this with the necessary  
15 partnerships and the necessary plan to move us all forward  
16 and achieve those goals.

17           BOARD MEMBER MITCHELL: Thank you. I wish us all  
18 good luck. Thank you.

19           VICE CHAIR BERG: Thank you. Any other  
20 clarifying questions?

21           Well, let's go to our witness list. So if our  
22 witnesses will pay attention to our list here on the back  
23 wall, be ready next person up so we can be very efficient  
24 in going through our list. It looks like we have about 13  
25 people. And good morning.

1 MS. ADEYEYE: Good morning. My name is Adenike  
2 Adeyeye. I'm a research and policy analyst at  
3 Earthjustice. I'm also member of the California Cleaner  
4 Freight Coalition and the Central Valley Air Quality  
5 Coalition. So thank you very much for all the work that  
6 ARB has done, and also for the opportunity to testify to  
7 speak today.

8 We view action on freight as obviously essential  
9 to meet our clean air standards. And as you all know,  
10 there are major issues that the San Joaquin Valley - since  
11 I work with the Central Valley Air Quality Coalition in  
12 particular - has to meet to attain the clean air  
13 standards. So that is the major focus of the work that I  
14 do.

15 And just given the scale of the emission  
16 reductions that we need, it's essential that technology  
17 forcing regulations be the cornerstone of this effort. We  
18 see that heavy-duty trucks are half of the NOx inventory  
19 or the largest source of the NOx in the San Joaquin  
20 Valley. And it's essential that we have regulations that  
21 push us toward the technology that we need for those  
22 trucks and for that part of the freight system.

23 It was really great to see in the ARB  
24 presentation that there is this thought about freight  
25 hubs, and in particular thinking about truck stops,

1 warehouses, distribution centers, all issues that are very  
2 important in the San Joaquin Valley. And we would urge  
3 you all to consider, you know, stronger fleet rules, and  
4 also thinking about the direct source review rules in the  
5 districts, and thinking about, in particular, putting  
6 those into the SIPs, so that they are enforceable, that  
7 they do result in real kind of enforceable tracked  
8 emission reductions in the valley and in other parts of  
9 California.

10           And so just -- in closing, I would just say, you  
11 know, please consider, please remember the communities  
12 that are on these freight corridors that are on 99 and on  
13 5 and that live near these truck stops, and are seriously  
14 impacted by the horrible emissions honestly from all of  
15 these heavy-duty trucks, and live with the health impacts  
16 of those -- of that part of the system. You know, I think  
17 we owe it to them, we owe it to the valley and all the  
18 parts of California that suffer from this pollution to  
19 think creatively, and to push stronger regulations,  
20 particularly for fleet rules, for heavy-duty trucks as  
21 much as we can.

22           So thank you very much.

23           VICE CHAIR BERG: Thank you.

24           MR. MARTINEZ: Good morning, Vic Chair Berg and  
25 members of the Board. My name is Adrian Martinez, and I'm

1 here on behalf of Earthjustice. Don't worry, there are  
2 only three of us testifying today, but I think that's  
3 really just a testament to how important the freight  
4 issues are to our organization. As you know, we're a  
5 public interest law firm. We work with groups throughout  
6 the state trying to tackle freight pollution, so that's  
7 why we have so many people testifying.

8           At the outset, I'm going to -- a lot of my  
9 colleagues are going to address a lot of the issues we  
10 raised in the letter, we submitted, in addition to a  
11 report that our coalition filed.

12           But I want to just address one issue, and that's  
13 related to efficiency. Efficiency gains are -- it's a  
14 very laudable goal. But as we're moving forward, I don't  
15 think we should conflate efficiency with air quality  
16 improvements. To the extent that you can get air quality  
17 improvements from efficiency, we should be seeking those,  
18 but that's not always the case in places like the South  
19 Coast Air Basin where the projections on freight are just  
20 so high that presumably getting more freight through the  
21 system means that there will be more containers.

22           That's what we're from the project developers as  
23 they're building projects that are very large in scope.  
24 There's a continuous flow of freight through the State,  
25 and particularly in Southern California. So as we move

1 forward, I think efficiency is important, but I think the  
2 agency needs to make sure it's really spending the  
3 majority of its time on what it does best. And I think  
4 what it really does best is trying to spur technology and  
5 get the clean technology innovation through regulations,  
6 and then matching it with smart incentive programs to kind  
7 of push the industry along.

8 Another issue just to raise is a lot of the  
9 infrastructure is getting built now, even though, you  
10 know, the economics of freight are moving forward. There  
11 are billions of dollars being spent on expansion projects.  
12 We're seeing a lot of them in the Inland Empire area  
13 through the world logistics center, the largest master  
14 planned warehouse in the world, the 710 project, one of  
15 the largest road freight projects in the nation.

16 So these projects are moving forward. I just  
17 want to reiterate the importance of this agency weighing  
18 in. The agency weighed in on the World Logistics Center.  
19 That was an excellent letter that was filed raising very  
20 important points. The problem is if we spend money  
21 incorrectly now, we could put ourselves in a position that  
22 it's impossible to meet our air quality objectives.

23 And then finally, just -- you're going to hear it  
24 a lot, but reiterate the role that regulations play. This  
25 is going to be critical. It's not just our coalition

1 saying this. Experts note the need for regulatory  
2 frameworks. That's how you send the market signals to get  
3 more technology developers to push this technology  
4 forward.

5 Thank you.

6 VICE CHAIR BERG: Thank you.

7 MR. CORT: Good morning. My name is Paul Cort.  
8 I'm also with Earthjustice and the California Cleaner  
9 Freight Coalition. And to reiterate, we want to just  
10 express our deep support for the actions that ARB has  
11 taken here, for their leadership in the interagency work  
12 that's going on, but we are still concerned that we have  
13 not yet outlined a path that will achieve the  
14 transformation that everyone in this room is saying is  
15 necessary.

16 In order to meet the national ambient air quality  
17 standards, our greenhouse gas targets, and not to mention  
18 to address the air toxics issues related to diesel  
19 emissions, we need to move our freight industry everywhere  
20 possible to zero emission technology. And I would just  
21 ask the Board to really look at the plans that are before  
22 you and be skeptical and ask, you know, is this really  
23 going to get us where we need to go?

24 Right now, the mobile source strategy that the  
25 staff has prepared, most of those emission reductions come

1 from voluntary or undefined further deployment of these  
2 technologies. And what we have heard as Adrian said just  
3 now, from the Port of L.A., from the South Coast Air  
4 District, from think tanks like CalStart, is that in order  
5 for that technology to be developed, we need clear market  
6 signals that come from regulatory requirements. We are  
7 not going to get there through voluntary programs that  
8 wait for these technologies to develop on their own to the  
9 point of cost parity.

10 As Mr. Corey said earlier this morning,  
11 regulatory technology-forcing standards are not enough.  
12 And there's no dispute, but we haven't even outlined a  
13 plan that includes those technology forcing regulatory  
14 measures for the freight sector. There are pieces, there  
15 are elements, but we need to do more.

16 The ARB will need to adopt a State Implementation  
17 Plan this summer outlining how the State will meet the  
18 ozone national standards. We hope that the Board will  
19 take that as an opportunity to fill in the details and the  
20 commitments that are going to be necessary to achieve this  
21 transformation.

22 Those rules don't need to be implemented or even  
23 adopted this year. But having enforceable commitments,  
24 and a clear path that signals to the industry we are  
25 moving these technologies to zero emission technologies.

1 That's -- that will be the key, as well as these public  
2 partner -- public-private partnerships and other  
3 innovative strategies that staff are considering.

4 But without that clear signal, and without rapid  
5 movement, we are not going to be in a position come 2030  
6 to achieve the transformation that everyone says is  
7 necessary.

8 MR. BETO LUGO MARTINEZ: Good morning, members of  
9 the Board. My name is Beto Lugo. I'm with Comite Civio  
10 Del Valle in Imperial County. I'm also the coordinator  
11 for the -- I've been identifying violations in  
12 neighborhoods in environmental justice reporting networks  
13 statewide.

14 And I'm here today, you know, with a coalition --  
15 as part of the coalition to speak on the impacts of the  
16 freight. Imperial County is located at the U.S.-Mexico  
17 border. And the impacts of the area, you know, not only  
18 there, but throughout the communities and throughout  
19 California is still -- the emissions from freight are  
20 causing problems to the environment, the quality of life  
21 for many communities, which are environmental justice  
22 front-line communities to freight corridors, ports,  
23 freight facilities.

24 And, you know, emerging trends now in a lot of  
25 communities are the community air monitoring projects.

1 And they're showing impacts of freight. And I know  
2 earlier you mentioned how maybe the data, the ARB, can use  
3 more data in the border. Our organizations are working on  
4 a 40-year monitoring project in Imperial County. And it  
5 is in the interests of some members of the agency, you  
6 know, that they wanted to look at this data maybe to help  
7 enforce laws, and for making new rules and regulations.

8           Anyhow, I'll move on. Many of these freight  
9 corridors, I see them all across the state. I'm in  
10 Imperial County so we travel up to Sacramento. I didn't  
11 drive up here, but, you know, we travel all along the  
12 I-10, and we see all these expansions everywhere. In  
13 Moreno Valley, the -- Adrian mentioned, you know, the  
14 largest facility for -- new facility.

15           And I also wanted to say that, you know, a lot of  
16 these counties where these facilities are expanding, and  
17 the freight is expanding, they already don't meet the air  
18 quality -- the clean air standards. And the coalition  
19 developed this vision for sustainable freight for the same  
20 reason for the regulatory loopholes that still exist.

21           ARB needs to be present and participate in all  
22 freight -- major freight projects throughout the State,  
23 and needs to insert zero emission technologies and  
24 supporting infrastructure into these facilities, so we can  
25 meet our greenhouse reduction air and climate goals.

1 Thank you.

2 VICE CHAIR BERG: Thank you.

3 MR. WYENN: Good morning. My name is Morgan  
4 Wyenn. I'm a staff attorney with the Natural Resources  
5 Defense Council, the NRDC. And we are also a member of  
6 the CCFC coalition that you're hearing from a lot this  
7 morning.

8 For the past six years, I have worked really  
9 closely with the ports of L.A. and Long Beach to clean up  
10 the harmful pollution from port operations. I also have  
11 the honor of getting to work with and represent in court  
12 the communities living close to the ports bearing the  
13 brunt of this horrible port pollution problem.

14 I am hopeful about the great potential for the  
15 ARB and its leadership with the other State agencies to  
16 finally create the zero emissions freight system we all  
17 need to achieve federal air standards and make the port a  
18 safe neighbor to live next to.

19 I cannot emphasize enough how badly we need  
20 strong ARB leadership on advancing zero and near zero  
21 emission drayage trucks. We are in the middle of a  
22 chicken and egg problem. And really the only way out that  
23 I see is a clear regulation setting a date certain for  
24 when the trucks serving the ports must be near zero and  
25 zero emissions.

1           Only then would the -- will the OEMs have the  
2 certainty they need to push out the life-saving technology  
3 for trucks on the economy of scale that is necessary.

4           Drayage trucks chug along the streets and  
5 highways throughout communities all across the state. And  
6 those communities have been suffering the resulting health  
7 impacts for far too long. Even if the regulatory  
8 requirement date is set several years into the future, and  
9 even if it begins -- it begins only at the shorter routes  
10 like between the ports and the near-dock railyards, the  
11 ports, and the peel off yards, which are increasing, we  
12 need that certainty and we need it urgently.

13           Incentives will, of course, be important to  
14 support early compliance and to ease the financial  
15 burdens. But incentives alone will not be enough. Only a  
16 date certain set by regulation will create the certainty  
17 needed for OEMs to reach the economy of scale needed to  
18 achieve the widespread turnover to protect the communities  
19 near the harbor and to meet our very important clean air  
20 standards.

21           Thank you.

22           VICE CHAIR BERG: Thank you.

23           MR. ERVICE: Good morning, Vice Chair Berg, and  
24 members of the Board. My name is Joel Ervice. I'm with  
25 RAMP, Regional Asthma Management and Prevention, also a

1 member the California Cleaner Freight Coalition. And RAMP  
2 promotes strategies to reduce the burden of asthma. We  
3 see reducing pollution from freight transportation as a  
4 key step to ensuring healthy communities across the State.

5           Approximately, five million Californians have  
6 been diagnosed with asthma at some point in their lives.  
7 And almost three million currently have asthma.  
8 Unfortunately, asthma is not an equal opportunity disease.  
9 Generally speaking, asthma is more common in low income  
10 communities of color, and as, you know, freight  
11 transportation is also more common in low income  
12 communities and communities of color. That's why your  
13 continued leadership is so important. By reducing  
14 pollution from freight, we can help people breathe easier.

15           I'm encouraged by what I just heard about the  
16 ARB's work on sustainable freight, and have several points  
17 I wanted to emphasize. First, as several of my colleagues  
18 have mentioned, voluntary incentive programs are important  
19 to creating change, but our communities also need a strong  
20 and smart regulatory approach to ensure health protections  
21 are in place as soon as possible.

22           It's good to hear that you're starting with the  
23 vehicles and fleets where technology is more developed,  
24 such as airport shuttles, and last mile delivery vehicles.  
25 I also encourage you to include certain heavy-duty

1 vehicles like drayage trucks and yard hustlers. These  
2 regulatory mandates will send a clear market signal and  
3 help provide our communities with needed relief as quickly  
4 as possible.

5           Second, we need more of ARB's guidance for major  
6 freight projects. Throughout the State, there are  
7 substantial proposals to bid and expand freight  
8 infrastructure. We need ARB's involvement and leadership  
9 to ensure we're investing in the cleanest projects that  
10 don't work against our air quality goals. I know staff  
11 capacity to engage in this work is limited, but with the  
12 Board's leadership, I think we can have more of their  
13 time.

14           And then finally, keep talking to the communities  
15 that are most impacted by freight. As an agency, the ARB  
16 has a long and generally positive history of not only  
17 being open to community needs, but to actively soliciting  
18 community input. And while there's always more that can  
19 be done, your track record sets a strong example. So  
20 kudos to the Board and to staff as well.

21           So thank you for your time and leadership.

22           MS. VASQUEZ: Good morning, Board members. I'm  
23 Diane Vasquez, policy advocate for Sierra Club California,  
24 and also part of the California Cleaner Freight Coalition.  
25 I just want to say I fully support what my colleagues have

1 indicated in the coalition, that we definitely need  
2 stronger rule-making. And specifically, it's going to be  
3 a clear indicator to the manufacturers who are actually  
4 settling here in California, and ready to actually deploy  
5 this technology.

6 But they're also afraid that if they create the  
7 technology, it's not going to be actually utilized by the  
8 industry. So we really need the Board and also the other  
9 agencies who have been working on this plan to really  
10 assess the strong plan in the next couple years, given  
11 that this is a critical need for communities.

12 Our members throughout the State are feeling the  
13 impacts. We're constantly hearing that -- you know, we  
14 are hearing that deployment is going to happen, but they  
15 haven't seen the effects. And really looking at a five to  
16 10 year timeline, it's not really feasible right now,  
17 because this is something that we can actually do. We can  
18 actually see the technology being deployed, and  
19 specifically on the bus transit sector, and really seeing  
20 how we can actually utilize that and how do we expand it  
21 throughout the communities, and really the communities  
22 that really need this at this moment, specifically in the  
23 South Coast and San Joaquin Valley.

24 So I really thank you for your time and really  
25 look forward to really working with the Board and the

1 other agencies to really see how we can actually  
2 effectively implement this. Okay. Thank you.

3 DR. O'DEA: Good morning, Board. My name is Dr.  
4 Jimmy O'Dea. I'm an analyst with the Union of Concerned  
5 Scientists. On behalf of our 69,000 supporters in  
6 California, I thank you for advancing policies and  
7 technologies for a cleaner freight system. And as you  
8 continue to formulate policies for sustainable freight,  
9 the Union of Concerned Scientists ask that you prioritize  
10 three areas.

11 First, zero emission technologies. You know, as  
12 well as I do, that the volume of California's freight  
13 system is increasing too much, and the reductions in  
14 emissions are needed too soon to meet health and climate  
15 goals without policies that prioritize zero emission  
16 technologies.

17 In particular, we believe that strategic adoption  
18 of policies for a subset of freight can provide  
19 infrastructure and a market signal for adoption of zero  
20 emission vehicles across the entire freight system. And  
21 specifically centrally located fleets operating over short  
22 distances, including cargo handling at ports, fleets  
23 operating over short distances, including, you know,  
24 drayage trucks, last mile delivery trucks represent  
25 technically feasible sectors to immediately begin pursuing

1 electrification strategies.

2           Second, we ask the Board to follow-up on the  
3 State's significant investment in demonstration projects  
4 with regulations to provide the market signal needed for  
5 vehicle manufacturers and fleet operators to invest in  
6 these technologies.

7           And third, we ask the Board to prioritize  
8 policies that benefit those most affected by emissions  
9 from freight. Communities near ports and major delivery  
10 routes suffer greater health effects of movement of goods  
11 as you know.

12           Along these lines, we ask that ARB also consider  
13 and address any disproportionate economic impact that a  
14 transition to cleaner freight technologies could have on  
15 owner/operators.

16           Thank you for your leadership on this issue  
17 moving -- working with other California agencies to move  
18 this issue forward. And we look forward to working with  
19 you as a plan is developed.

20           VICE CHAIR BERG: Thank you very much.

21           MS. MADUENO: Good morning. My name is Virginia  
22 Madueno, and I am here representing the American Lung  
23 Association. It is truly a pleasure to be here with you  
24 today. I am here not only on behalf of the American Lung  
25 Association, but with my friends that have already spoken,

1 who I personally have not met yet, but with the California  
2 Cleaner Freight Coalition. And again, we appreciate this  
3 opportunity.

4           As noted in the original draft freight strategy,  
5 the pollution caused by this freight sector is casting a  
6 terrible burden on Californians. And I don't need to  
7 belabor this issue. It's already been addressed earlier  
8 today with regard to the health and the impact that it's  
9 having on many Californians, especially those living near  
10 these corridors.

11           I can tell you that this also begs the question,  
12 and as consultant having worked in the last -- I want to  
13 say last couple years with the work that you've been doing  
14 on SB 377 -- on SB 375, it really begs the question what  
15 are we doing to better implement strategies that help  
16 better land-use and transportation planning here in  
17 California, and specifically in my neck of the woods.

18           As a life-long resident of the San Joaquin  
19 Valley, I know that my region is home to the most  
20 difficult air pollution challenges in the nation. And I  
21 can tell you I don't consider myself an environmentalist,  
22 but when I speak to business groups who consider  
23 environmentalists the evil, if you will, I tell them we  
24 have to be very pragmatic.

25           This quality of air that we're talking also has a

1 significant impact on our economy. And they both go in  
2 tandem, so we can't ever dismiss that.

3           The Lung Association's 2015 State of the Air  
4 Report found that Fresno, Bakersfield, Visalia, and my  
5 home town of Modesto are among the top five most polluted  
6 cities in the State of California. We need true  
7 transformation in our transportation system, and in  
8 particular in our freight.

9           We need to go from zero emissions as soon as  
10 possible. And we ask this for the hundreds of thousands  
11 of people that are being impacted on a daily basis. We  
12 appreciate this Board moving forward with the discussions  
13 in tandem with other State agencies, and we urge you to  
14 review our coalition's vision statement and the letter  
15 that was submitted today.

16           The American Lung Association also urges this  
17 Board and the Brown administration to move forward with  
18 climate investment funding as soon as possible. Further,  
19 the American Lung Association urges this Board to note the  
20 American Lung Association recommendation for regulatory  
21 requirements, for zero emission technologies, in addition  
22 to the incentive funding.

23           And again, on behalf of the American Lung  
24 Association, thank you for your time and your dedicated  
25 work to your Board and your staff.

1 Thank you.

2 VICE CHAIR BERG: Thank you. And good morning,  
3 Mr. Magavern. Before you start this morning, can I just  
4 ask if anybody else would like to sign up on this item,  
5 could you please see the clerk right away. Otherwise,  
6 we're going to cutoff our speakers list.

7 And with that, welcome.

8 MR. MAGAVERN: Thank you. Good morning. Bill  
9 Magavern with the Coalition for Clean Air, and the  
10 California Cleaner Freight Coalition.

11 And our overriding message on this issue over the  
12 years has been to protect the health of the people who are  
13 downwind of our goods movement industry. And we know that  
14 the impacts of this important industry in California are  
15 not distributed evenly. They're disproportionate impacts  
16 on low income communities of color. That's who we almost  
17 always find living downwind of the ports, the railyards,  
18 living near the freeways and the large distribution  
19 centers.

20 And I really appreciate the fact that this Board  
21 has made cleaning up the freight system a high priority.  
22 Board members have been very clear about that over the  
23 years, and you've dedicated a lot of staff who are working  
24 very hard and very well on this issue.

25 So we certainly appreciate the work of Cynthia

1 and Heather and the entire team on this issue. And I want  
2 to highlight what I thought were some of the most  
3 important priorities in the staff presentation, the  
4 commitment to zero emissions equipment everywhere  
5 feasible, and where it's not feasible, going to near zero  
6 with low carbon renewable fuels. Very important that we  
7 pursue that aggressively; the highlight on enforcement and  
8 cleaner combustion now, this year, getting to cleaner  
9 combustion for those vehicles that are currently operating  
10 on our roads.

11 And also, I think it's very important that you  
12 continue to have in your plans the facility emissions cap,  
13 which, you know, up till now, you're in the data gathering  
14 phase. I think it's important that we move to making that  
15 a reality.

16 It's crucial that we have incentive funding  
17 available for these technologies. And we have advocated  
18 in the Governor's office and the legislature for that  
19 incentive funding, but we've seen that the money is not  
20 always there in the quantities that we need it to be.

21 For example, this year, when the Governor and  
22 both Houses of the Legislature called for 200 and --  
23 excuse me, called for \$350 million in low carbon  
24 transportation funding, about half of that to go to  
25 heavy-duty, and yet very little of that money has actually

1 been appropriated.

2           So in our planning, we cannot rely on incentive  
3 funding that may not be there. And we can't have a black  
4 box. We need to make sure that we have real commitments  
5 in the SIP that are going to bring us into attainment with  
6 air quality and allow us to meet our goals for climate and  
7 for petroleum reduction.

8           And finally, as you all are very well aware, ARB  
9 can't do this all alone. You're in a multi-agency effort.  
10 And it's interesting this morning, where's Caltrans, where  
11 is the State Transportation Agency? We'll be meeting with  
12 them this afternoon, so we'll have the opportunity to talk  
13 to them, but it's disappointing that they've missed this  
14 opportunity, and this important public forum to talk about  
15 what they're doing.

16           Thank you.

17           MS. THOMAS: Good morning, Board and staff. My  
18 name is Taylor Thomas. I'm with East Yard Communities for  
19 Environmental Justice. We're based in Long Beach,  
20 Commerce, and East L.A., and we're also part of the  
21 California Cleaner Freight Coalition.

22           And I think the first time that I came to speak  
23 before you all was in April of last year. And I've been  
24 here two or three times since then. And I'm back again  
25 today, because the conditions in my community are dire.

1           We live next to railyards and ports that operate  
2 24/7, and we live next to freeways that carry diesel  
3 trucks through our communities and neighborhoods. We need  
4 regulatory action and mandates to spur investment in zero  
5 emission technologies. We are already paying the costs  
6 with our health.

7           There are no incentive programs for us to turn to  
8 for help when our children are born underweight and early;  
9 when another person in our family, in our community, or at  
10 our job gets diagnosed with cancer; or when the cost of  
11 our doctor's visits, hospitalizations, and medications  
12 puts us in debt.

13           Voluntary programs and incentives are not enough.  
14 We need mandates and regulations. We can start with the  
15 vehicles and fleets that -- where the technology is more  
16 developed, such as drayage trucks and on-ground support  
17 equipment.

18           We need to continue on the path towards zero  
19 emissions, because our bodies can't continue to be used as  
20 filters.

21           Thank you.

22           MR. KENNY: Good morning, Madam Vice Chair,  
23 members of the Board. My name is Ryan Kenny with the  
24 Clean Energy. We are the nation's largest provider of  
25 natural gas transportation fuel. And I'd like to make

1 three brief points.

2           The first of which is we agree on the problem and  
3 the scope, I think, and that heavy-duty trucks are one of  
4 the most significant contributors to pollution emissions,  
5 and therefore, we do believe that incentive funding should  
6 be pursued to help meet the State's goals of 40 percent  
7 greenhouse gas reductions, 50 percent reduction in  
8 petroleum, and, of course, the reduction of methane and  
9 black carbon short-term -- or short-lived climate  
10 pollutants.

11           And to do that would be through \$100 million per  
12 year over five years in cap-and-trade auction funds for  
13 technologies that meet the 0.02 NOx engine standard. And  
14 that's one thing that our industry will be pursuing this  
15 year.

16           The second point is we do encourage a discussion  
17 about the use of both renewable natural gas and also  
18 fossil based natural gas. Fossil based, of course, is  
19 cleaner than both gas and diesel. We do believe that that  
20 should be included for consideration in the discussion.

21           And the third point is that we believe the Board  
22 should set clear reduction targets for the industry to  
23 consider the full lifecycle emissions, and not just  
24 tailpipe emissions.

25           Thank you.

1           VICE CHAIR BERG: Thank you.

2           MR. MARQUEZ: Good morning. My name is Jesse  
3 Marquez. I'm the Executive Director of the Coalition for  
4 a Safe Environment. We're also a member of the California  
5 Cleaner Freight Coalition. But more importantly, we're  
6 also a member of the California Communities Against  
7 Toxics. It's a 25-year old organization in California  
8 made up of over 60 environmental justice organizations in  
9 Northern, Central, and South America.

10           We have been the largest voice in advocating for  
11 numerous different policies. We do support the direction  
12 that California is going in returns of freight. However,  
13 I want to point out that in the Governor's Executive  
14 Order, there is a new mandate for California for ARB. And  
15 that is, we will transition into zero emission freight  
16 technologies.

17           I don't see that quite happening. It does not  
18 state anywhere in there near zero. Near zero means  
19 natural gas, CNG gas, or even biogas. It says zero  
20 emission technologies. So we will not support anything  
21 other than a zero emission truck. There are five  
22 manufacturers right now, two of them already have a  
23 commercial class A drayage truck. By the end of this  
24 year, the other three will have been already completed all  
25 their testing.

1           There was one other, Vision Motor Corp, who was  
2 certified by ARB for sale as a zero emission truck in  
3 California. They now went bankrupt, because Port of L.A.,  
4 Port of Long Beach, and government agencies did not  
5 enforce them to use that zero emission truck technologies.

6           In the next 30 days or so, you're going to be  
7 hearing from our CEQA court class action lawsuit against  
8 the Port of L.A. over the BNSF skid project for their  
9 failure to include it when there was a zero emission's  
10 truck certified. Those same five truck manufacturers also  
11 make a yard hustler truck that is zero emissions. And  
12 they are all available for sale right now.

13           Included in the zero emissions is zero emission  
14 capture technologies in the pilot projects. There was one  
15 for locomotive trains. There is no other than that one  
16 that exists for technology. Yet, it's not being listed  
17 here.

18           There's no listing for zero emission trains.  
19 There were two projects submitted for maglev train  
20 demonstration projects. There are three companies in the  
21 United States right now that have maglev train  
22 demonstration tracks. It is a feasible technology and  
23 they do work.

24           So I want to emphasize -- I think they need more  
25 oversight over what's being proposed for the pilot

1 projects, because I already can tell you right now, we  
2 will not be supporting them or vague information like  
3 alternate technologies. Our mandate is zero emission  
4 technologies.

5 I also did distribute a little sheet right here,  
6 which talks about container yards, container  
7 transportation and things of that nature. Because when  
8 we're talking about freight issues, this tells you what my  
9 community in Wilmington faces. We have 59 container  
10 storage yards in Wilmington. And I just counted three  
11 more just in the last five days.

12 So I thank you very much for this time.

13 VICE CHAIR BERG: Thank you.

14 MR. GALLO: Good morning, everyone. My name is  
15 Frank Gallo. I'm with the Ditching Dirty Diesel  
16 Coalition. And we're also a member of the California  
17 Cleaner Freight Coalition.

18 I'd like to commend the Board for the work that  
19 they've done so far in developing this sustainable freight  
20 plan. And at the last meeting, Dr. Sperling, I was very  
21 happy to hear him making the suggestion that there is a  
22 real need for multi-jurisdictional cooperation.

23 So CCFC responded to that, and we wrote our  
24 official letter encouraging that this Executive Order be  
25 passed.

1 I'd like to underscore this need, because  
2 currently among other agencies and municipalities are  
3 ignoring CARB guidelines, specifically the air quality and  
4 land-use guidelines established in 2005 for near roadway  
5 exposure.

6 That guideline recommends that there be a 500  
7 foot separation between freeway and sensitive receptors.  
8 So we've had -- one of the projects that was done in our  
9 area was the HOV installation from San Leandro -- from  
10 Oakland through San Leandro, and for creating that, the  
11 roadway was brought within 20 feet of some residences  
12 right there. And there were no mitigations other than an  
13 extension of a sound wall provided.

14 So we believe in addition to the zero emission  
15 technologies that you're considering, that more work could  
16 be done with the enforcement and guidelines, specifically  
17 when it goes down to the municipal level.

18 Besides the work around the ports, which is  
19 extremely important for that, we're also concerned about  
20 Priority Development Areas in support of the smart growth  
21 program in our areas, both in Alameda and Contra Costa  
22 counties. Some of these priority developments are along  
23 major freight corridors, and we don't see minimal design  
24 standards being established for these high density units  
25 that would help protect the health of the residents -- the

1 future residents there.

2 I'm talking about things like buffer zones and  
3 air filtration systems, or exactly where the air intakes  
4 are going to be sited like that. And we believe that CARB  
5 could be helpful in establishing these guidelines, and  
6 making sure that there is serious consideration at the  
7 local level.

8 I also serve on Metropolitan Transportation  
9 Commission, a committee, that's a technical advisory  
10 committee, where we're looking -- they're evaluating zero  
11 emission and near zero emission pilot projects to apply,  
12 and which ones they're going to consider applying for.  
13 And as part of that, one of them, the hydrogen heavy-duty  
14 trucks, was examined.

15 And I just have this other quick question.  
16 Earlier in the presentation, you talked about the  
17 expansion of hydrogen fuel stations. And my question is  
18 will that be available for heavy-duty trucks?

19 And I think that needs to be established.

20 MR. SCHOTT: Madam Vice Chair and Board, Tim  
21 Schott on behalf of the California Association of Port  
22 Authorities. We have -- our association and the ports  
23 have enjoyed a very long and close working relationship  
24 with your staff in efforts to try to reduce emissions from  
25 the freight sector, and we're very proud of those

1 achievements.

2 Over the last decade, our large ports report  
3 reductions on the order of more than 80 percent in  
4 particulate matter, 90 percent in SOx, 50 percent in NOx,  
5 and significant GHG reduction as well.

6 While we're proud of those achievements, they  
7 have come at significant cost. I think by ARB's own  
8 estimates about \$5 billion in California-only costs. And  
9 so we are facing unprecedented competition currently with  
10 significant investments in Canada, and in Mexico, very  
11 real competition from around the nation, and impending  
12 widening of the opening of the widened Panama Canal that  
13 will allow larger vessels to bypass the west coast  
14 entirely.

15 We want to make sure two things don't happen.  
16 First, is that we don't negatively impact the very  
17 significant economic and job contributions of the freight  
18 sector. And two, that we don't divert cargo away that  
19 would not only damage our economy, but might also lead to  
20 the leakage of greenhouse gas emissions. There is no  
21 cleaner way to bring cargo into the United States than  
22 through California ports, and we would remind you to keep  
23 that in mind as we look forward.

24 We were very happy that the Governor's Executive  
25 Order not only included transitioning to the zero emission

1 technologies, which our members support, we just want to  
2 make sure we do it in a logical way, with enough lead time  
3 to make sure that folks have the opportunity to remain  
4 competitive.

5 We were very happy that he also talked about  
6 increasing competitiveness in California. We think that's  
7 an important thing for the State to focus on.

8 I'm here available to answer any questions. We  
9 would ask for your particular insight and attention to  
10 assuring that we don't strand assets, investments that  
11 have been made to meet the current regulatory regimen, and  
12 to meet our current goals as we go forward and increase  
13 those goals, and to make sure that technologies that are  
14 required are not only technologically feasible, but  
15 economically feasible, and commercially available as well.  
16 Thank you very much.

17 VICE CHAIR BERG: Thank you. I do have one  
18 question for you before you sit down. Thank you so much.  
19 You talk about stranded assets. But understanding that  
20 we're putting these plans together, how do you see the  
21 businesses looking forward before we do have regulatory --  
22 regulations in place that will drive the markets?

23 MR. SCHOTT: We are very hopeful that the ARB,  
24 the other agencies, and the State on the broader level  
25 will look at this as a partnership opportunity.

1           What we are suggesting is that we can get there,  
2 but we're going to need significant help. We're going to  
3 need significant State resources to move the timeline up  
4 to make sure that we can implement the new technologies  
5 that may become available.

6           But if you're asking an individual trucker who  
7 just spent \$200,000 to buy a truck to meet the current  
8 standards to give that truck up when it hasn't used a  
9 portion of its useful life or hasn't been able to have a  
10 return on that investment, and frankly to give it up in a  
11 way that he can't really sell it, we don't want him to  
12 sell it into a marketplace where we're looking for the  
13 advanced technologies, and you're asking him to buy a new  
14 truck in a short period of time, it really begs the  
15 question economic feasibility.

16           And I think that's one of the places where we're  
17 hoping the State can be of great assistance is in those  
18 transitional -- two things, one in helping to develop and  
19 actually run the pilot programs that will develop these  
20 technologies, but two, in helping to fund the transition  
21 in the marketplace to adopting the technologies.

22           VICE CHAIR BERG: I totally understand that  
23 second point that you made. I think I was referring more  
24 to the proactive assets that are being bought today. Are  
25 you seeing in the ports that people are looking in the

1 future and making decisions on assets today on future --  
2 very near zero or zero emission technologies.

3 MR. SCHOTT: Yeah, I think everybody in the  
4 sector is desirous of that and aware of that, trying to  
5 reach to that. We're at a kind of a transitional period  
6 where those technologies are not fully developed, where if  
7 they are feasible, they haven't been ground-tested in real  
8 conditions. And if they are feasible, that doesn't mean  
9 they are economically feasible or commercially available.  
10 And there's some transition that needs to occur that we  
11 believe the State can play a significant role in helping  
12 to -- in helping to achieve.

13 VICE CHAIR BERG: Thank you. Well, that does  
14 bring our witness list to a close. And so I'd like to  
15 turn to my fellow board members for comments and input.

16 Thank you. Ms. Mitchell, will you start us off?

17 BOARD MEMBER MITCHELL: I will.

18 Thank you, Cynthia Marvin, for all the work you  
19 have done on the Freight Sustainability Plan, and Doug Ito  
20 and all of you who have worked on that. This is a really  
21 important project that we've embarked on. One thing that  
22 I would like to suggest is that we move a little bit  
23 faster toward getting a regulation in place. And that  
24 doesn't mean that we require turnover of the trucks  
25 immediately, but that we send a signal into the market

1 that this is the direction that we need to go.

2           There are already available technologies that are  
3 zero and near zero. But what I think we're seeing from  
4 those manufacturers is they need for that market to be  
5 created. They're not willing to stick their necks out and  
6 take a risk of manufacturing these kinds of vehicles,  
7 unless a market is created.

8           We can create that market through beginning a  
9 process of regulation, and through looking for incentives  
10 to get to that market. The regulation I think that we  
11 should be looking at is for low NOx trucks. And I know  
12 that we're already working along those lines. I think we  
13 can look for a measured implementation of any such  
14 regulation. And as we see turnover in existing fleets,  
15 they can turnover to this new market. We have already  
16 certified the 0.028 liter engine. I know we're very close  
17 to getting a certification for the 0.02, 11 liter engine.  
18 So I urge us to keep working along those lines.

19           I would also say that regulation should target  
20 fleets, and I would say drayage fleets. They're  
21 short-haul fleets, where I think we can get some momentum  
22 going, and also, with yard hustlers as well. But I think  
23 by sending a signal to the market, that there -- to the  
24 OEMs that there will be a market for these, and the target  
25 date for implementation can be somewhere in the future.

1 It won't be tomorrow. As we've already seen, we have our  
2 truck and bus rule and we've had a massive turnover in the  
3 existing truck fleets, so we don't want them to have  
4 stranded assets.

5 But as fleet turnover occurs, we want them to  
6 move to the newest technology and we want to give our OEMs  
7 are market for that new technology. So that would be the  
8 goal that I would urge us to be looking for.

9 I also have a concern in our area -- and thank  
10 you, ARB for writing the letter -- on the World Logistics  
11 Center. But, I mean, we do increase emissions when we  
12 build warehouses that are way out in the Inland Empire,  
13 and then trucks go all the way to this distant location,  
14 and they turn around and come back to final distribution  
15 of the goods.

16 And this becomes more problematic as we're seeing  
17 these huge mega ships with 18,000 containers coming into  
18 our ports. We have already seen those in the L.A. Port  
19 legion. One of them has arrived a couple of weeks ago,  
20 and we're seeing more of them now.

21 So this is another area that I think we need to  
22 address, and so would urge us to look into that as well.  
23 I don't know how we address it. I'll leave that to the  
24 experts and to Dr. Sperling, but -- and we talked about  
25 some time ago do we have something like SB 375 for

1 freight. I think that's difficult, but -- and it is a  
2 local land-use issue as well. And I know we can't get  
3 into that sphere, but it is a problem. And I think  
4 whatever help we can develop here would be good.

5 So those are my primary priorities for this  
6 program right now. Thank you.

7 VICE CHAIR BERG: Thank you. I'm going to turn  
8 to Supervisor Roberts.

9 BOARD MEMBER ROBERTS: Yeah. Thank you, Madam  
10 Chairwoman. I, earlier this week, had a chance to talk to  
11 staff on potential freight pilot projects as well as this  
12 whole issue. And I want to make some comments, but I  
13 don't want you to misconstrue in any way, shape, or form  
14 that we're not interested in zero or near zero vehicles,  
15 but I think sometimes we think that's the whole solution.  
16 And when it comes to borders, there's a lot going on, and  
17 I think things staff wasn't familiar with.

18 First of all, Mexico is our largest trading  
19 partner to California, \$34 billion a year, something like  
20 that. We know it in San Diego because we see it, we live  
21 it. It's kind of like the Port of L.A., but it's a land  
22 port, which was a new concept here just a few years ago.

23 When we discussed this earlier this week, there  
24 was something listed zero emission technology fast lane.  
25 And it's been modified now to say advanced technology fast

1 lane on the border. I was calling to staff's attention,  
2 and I think what they'll hear as they go out and have  
3 workshops, there are things that are going on. And one  
4 thing in particular that the Governor's office has been  
5 championing, and the Governor himself has attended  
6 meetings in Mexico City, and we're developing a new  
7 concept for a border crossing.

8 Right now our trucks average -- can average three  
9 to four hours in waits to get across the border. And  
10 we're looking at a system that would reduce that to about  
11 20 minutes. We're looking at a change that would reduce  
12 CO2 emissions by almost 50 percent the first year. A  
13 dramatic change in the way the border is looked at, and it  
14 doesn't have to wait until the technologies and the  
15 acquisition of all these, you know, super efficient  
16 trucks.

17 And I support all that. In fact, I think as some  
18 of our companies are successful in developing the dynamic  
19 recharge of charging of the trucks and buses and other  
20 things, that we're going to see an incredible improvement  
21 in the ability and the desire for companies to switch  
22 over. But we have something that can go -- you know, I  
23 would hope we see in place in 2017. I'd like our staff  
24 when they have their workshop to pay attention to what we  
25 are doing in San Diego. And one of their criteria says

1 opportunity for integrated State agency support.

2 I think if they were -- and check with the  
3 Governor's office, they'll find they are strongly  
4 supportive of this because it not only has emission  
5 benefits that are enormous, it has economic benefits that  
6 are enormous. And I -- you know, I don't want to say  
7 anything, but that's the kind of thing that belongs on  
8 this list.

9 If you can show me something that has enormous  
10 economic -- not projected or hoped for or, you know, based  
11 on some technology that's not here yet, but today's  
12 technology getting those benefits. And in delivering  
13 those, if you look, as I mentioned in front of you before  
14 the community of San Ysidro should be on that list of  
15 impacted and disadvantaged communities, but because of the  
16 number of reasons, partial which is lacking the data, that  
17 it wasn't.

18 So I want to raise this. I'm going to continue  
19 to raise it, if we have a list of pilot projects that  
20 could be helped, that we could get started, and we could  
21 see such enormous benefits from immediately.

22 VICE CHAIR BERG: Thank you.

23 Ms. Riordan.

24 BOARD MEMBER RIORDAN: Yes. I wanted to talk  
25 about the workshops and ask a question. I think the

1 workshops provide us an opportunity to get this kind of a  
2 discussion out across the State of California. And I have  
3 seen your list of locations and it's a good list, but I am  
4 wondering how we are going to go about alerting people,  
5 other than the press, to the workshops and the intent of  
6 the workshops, somewhat of a framework.

7           FREIGHT TRANSPORTATION BRANCH CHIEF ARIAS: Sure,  
8 I will answer that. We have done the traditional meeting  
9 notice that we've put out with the workshops, not only  
10 through ARB's listservs, and we're also using and reaching  
11 out to our partners at the Caltrans and Energy Commission.  
12 They are distributing the meeting notice.

13           A lot of our stakeholder partners are also very  
14 aware. CCFC who spoke with us today, they're very aware  
15 and working to make sure that their membership and  
16 community members will also be participating.

17           We also specifically added the webcast or the  
18 webinar, excuse me, at the end, so that folks that aren't  
19 able to attend the various locations throughout the State  
20 can attend in that manner.

21           But then, of course, we also want to make sure  
22 that we continue to encourage folks that aren't able to  
23 attend those particular meetings to reach out to us, call  
24 us any time, email us. We are launching a website that  
25 will be for the multi-agency effort as more of a single

1 portal for all of these kind of comments. So we are  
2 reaching out in all ways that we can think of to be able  
3 to make sure folks are aware of them.

4 BOARD MEMBER RIORDAN: And you're going to reach  
5 towards organizations that represent groups, correct? I  
6 mean, in other words, if one of the issues that you have  
7 mentioned, which affects the area where I am, and that's  
8 the Inland Empire, you talked -- there was a discussion  
9 today a bit about the warehousing facilities. And I am  
10 going to assume that in their groupings, they must have  
11 some organization. And I think it would be wise for us to  
12 include them, obviously, the California Trucking  
13 Association, and those, as well as the community groups.

14 The community groups actually I think do more  
15 outreach than anyone, but some of these other more  
16 specific professional groups. I'd like you to try to get  
17 some input from them so that they kind of understand what  
18 we're doing in our efforts with this plan.

19 Thank you.

20 FREIGHT TRANSPORTATION BRANCH CHIEF ARIAS: Yeah.  
21 And what I failed to also include is Caltrans convenes the  
22 California Freight Advisory Committee, which also includes  
23 members of the warehouse and distribution center. We  
24 agree very important. So we are reaching out to all the  
25 different groups, the airport, seaports, warehouse

1 distribution centers, trucking, rail, all modes, all  
2 locations as well as the communities groups that we hope  
3 can participate.

4 BOARD MEMBER RIORDAN: Thank you.

5 CHAIR NICHOLS: Don't forget labor --

6 FREIGHT TRANSPORTATION BRANCH CHIEF ARIAS: (Nods  
7 head.)

8 CHAIR NICHOLS: -- while you're listing groups.

9 BOARD MEMBER RIORDAN: That's important. Maybe  
10 more towards the ports, but it is important in our area.  
11 I don't know to what degree, the building trades  
12 certainly.

13 CHAIR NICHOLS: Infrastructure.

14 BOARD MEMBER RIORDAN: Yeah, building trades.

15 VICE CHAIR BERG: Also warehouse.

16 Thank you very much.

17 Professor Sperling.

18 BOARD MEMBER SPERLING: I want to emphasize that  
19 this is probably the toughest challenge ARB has faced at  
20 least in modern history. And it's tough, because we're  
21 dealing with a very complicated sector. There's a lot of  
22 companies, different industries, and different in a sense  
23 systems. And really almost no one really understands the  
24 whole system, neither industry nor government nor  
25 academia.

1           That, by itself, should be a note -- give us all  
2 a note of caution in how we move forward, because unlike  
3 almost everything else we do, there could be large  
4 unintended economic consequences. And so we -- I mean,  
5 it's very admirable and very impressive what -- you know,  
6 what we've done, we the whole community, not just ARB,  
7 Caltrans, the Governor's office, in trying to make  
8 progress and moving forward. And, you know, the efforts  
9 with the efficiency task force group that I'm helping  
10 with -- actually, it's Caltrans that's leading that effort  
11 with -- in partnership with us. So we're doing that.

12           But we -- here, what we have, more than anything,  
13 is regulatory authority. And so, you know, we hear over  
14 and over again, you know, that we should be exercising  
15 that regulatory authority to come up to achieve these zero  
16 emission technologies. And there are complaints that  
17 we're not moving fast enough. We're not adopting those  
18 rules. We don't have a path.

19           I think we've made a lot of progress. I think  
20 the staff has done a great job with a very difficult  
21 challenge, and I want to -- I think we need a little more  
22 sophisticated and nuanced approach as we go forward.  
23 There's a lot of talk about drayage trucks. Well, as  
24 someone pointed out, we've already gone through a very  
25 expensive and time-consuming and, I'll even note, painful

1 experience in that, but an effective one at the same time,  
2 and to go back and tell them they've got to convert now  
3 all these trucks to zero emission.

4           First of all, there's some questions about how  
5 realistic or -- that is in any level you're talking about.  
6 But it's also a question, because -- take the drayage  
7 truck as a good example, is, okay, there are companies  
8 that are making a few of these trucks, but they're not --  
9 they don't have a lot of experience, the costs are very  
10 high, and if we were to regulate it, we are basically  
11 saying we want to spend a huge amount of our incentive  
12 money, our political capital, on something that has  
13 important benefits, but maybe that money and that effort  
14 could be invested better otherwise.

15           And so what we've learned, I think, at ARB over  
16 the years -- what I've learned is that the best  
17 regulations and the best policies are ones that are --  
18 tend to be a little broader, have a little more  
19 flexibility, are performance based, market based. And it  
20 makes me very nervous to think say that we're going to do  
21 regulations on each of these little niche technologies. I  
22 just think that's a bad idea, and -- because we don't  
23 really understand, you know, what the consequences of that  
24 are. The costs are huge.

25           So we need to come up with a more nuanced

1 approach there. And the focus on zero emission technology  
2 is a good one. But even there, this is one time I think  
3 we need to separate between criteria pollutants and  
4 greenhouse gases, because there are a lot of local health  
5 impacts. And maybe we've got to think about this better,  
6 in terms of where do we emphasize low criteria pollutant,  
7 low emission technologies that don't cost very much, and  
8 therefore we can get a huge improvement, you know,  
9 using -- frankly using diesel technology that's clean -- I  
10 hate to use the word -- expression "clean diesel" these  
11 days after the VW experience, but there is clean diesel  
12 technology.

13           And maybe we'll get a lot more bang for our buck  
14 in a health sense for some of these local communities that  
15 do have true health impacts, than this kind of brute  
16 force, you know, zero emission focus or technology. And I  
17 think we need to separate that out, because these criteria  
18 we're talking about some very local impacts for health  
19 impacts, and we're talking about worldwide impacts with  
20 climate. So I think we need to think that through a  
21 little bit more, especially as we think about these zero  
22 emission technologies.

23           So -- and then I'll, I guess, close with a  
24 thought that the letter from the public -- the American  
25 Lung Association has advocated a zero emission technology

1 mandate for freight, and a lot of other people have talked  
2 about it. And I used to be very -- thought that was a  
3 really bad idea, but I'm thinking if we -- if we can come  
4 up with some creative ways of thinking about it, where it  
5 is -- there is a lot of flexibility and trading provisions  
6 built into it in a way that we can use it to target -- to  
7 bring the emission -- zero emission technology in in  
8 certain applications, without us prescribing exactly  
9 where, and how, maybe there's something there.

10           And I confess I haven't thought it through,  
11 because it's far more complicated than what we're doing  
12 light-duty vehicles, and far more expensive as well. And  
13 it's a much more diffuse industry, and it's a more diffuse  
14 application, so -- and that's why we've gone very slow.  
15 And I admire and praise the staff for being cautious  
16 moving forward for this.

17           But, you know, maybe there's something there, and  
18 I'll volunteer to help think about that if --

19           (Laughter.)

20           BOARD MEMBER SPERLING: I don't have the answer  
21 though.

22           MR. MARQUEZ: Volunteer to do a cost-benefit  
23 analysis.

24           BOARD MEMBER SPERLING: And that comment actually  
25 was a very good one. The whole idea there would be to do

1 it in a cost effective, cost beneficial way and figure  
2 that out. And that can be both in terms of on the  
3 technology side as well as on the health impact side.

4 VICE CHAIR BERG: Well, thank you very much.  
5 That's a lot for us to also consider.

6 Supervisor Gioia.

7 BOARD MEMBER GIOIA: Thanks. There's been a lot  
8 of good comments. And I agree with the first comment of  
9 Director Mitchell about trying to move along regulation as  
10 quickly as possible.

11 I wanted to focus on one of the comments in one  
12 of the letters, and by several speakers, which is the need  
13 to participate in planning for major freight projects,  
14 because even if we move quick on regulations, there are  
15 projects already in the planning stage. And we know that  
16 if we don't influence and have impact on those projects,  
17 there will be an investment in capital with technology  
18 that may not be as advanced as we would like to see.

19 And so I'd like to hear a little bit about how we  
20 can be -- what we're doing and how we can be even more  
21 proactive on new infrastructure that's being developed  
22 currently, that's in the planning stage, so that we can  
23 ensure that on the front end, we're getting the best and  
24 cleanest technology, again because -- otherwise we face a  
25 situation where things have been planned, our regulation

1 comes out and doesn't affect those very large and  
2 important projects that are already in the pipeline.

3 GOODS MOVEMENT PROGRAM SECTION MANAGER VERGIS:

4 Thank you for the comments. First, I'd like to  
5 take an opportunity to talk a little bit about what we've  
6 done over this last year with respect to commenting on  
7 projects. So using existing resources, we've been able to  
8 comment on selected large projects and have invited the  
9 environmental communities to also flag projects that are  
10 important to them and their communities.

11 I'd like to highlight that when we comment on  
12 projects, when ARB comments on projects, we're not  
13 necessarily opposing or supporting the project. Instead,  
14 we're trying to flag opportunities to use zero and near  
15 zero emission equipment in that proposed project, as well  
16 as highlight those advanced technologies that we believe  
17 will become commercially available once the project is  
18 built out. Many of the projects that we're commenting on  
19 do have long build-out periods. And so you heard about  
20 the World Logistics Center project that we did provide a  
21 comment letter on.

22 Another example is a 96-acre redevelopment of a  
23 terminal project in San Diego. There, we felt that the  
24 project would lead to an increase in the use of diesel  
25 equipment and an increase in particulate matter that would

1 affect surrounding communities. So in this letter, staff  
2 proposed various zero and near zero emission equipment  
3 that could be used in the context of the project.

4 So that included hybrid electric medium trucks  
5 and zero emission forklifts. Another opportunity that  
6 we're excited about is the freight handbook, which you  
7 probably saw in the pathways document that was distributed  
8 in April, and we expect we'll also be including in the  
9 California Freight Action Plan.

10 So that will help us identify best practices for  
11 siting, design, and operation of new freight facilities as  
12 well as propose potentially air quality mitigation  
13 measures for new proposed projects.

14 BOARD MEMBER GIOIA: So your sense is that we  
15 are being pretty proactive on making these comments. The  
16 issue is if it's not with the force of a regulation, then  
17 therefore -- so how do we follow-up to sort of have the  
18 maximum impact on these projects between the time that a  
19 regulation is in effect, and the time that we're  
20 commenting to follow through?

21 GOODS MOVEMENT PROGRAM SECTION MANAGER VERGIS:

22 So most of what I'm speaking to is part of the  
23 process when a local project is being proposed for the  
24 development. What we're doing is providing a comment  
25 letter that is then part of the legal record that's

1 associated with a proposed project.

2 BOARD MEMBER GIOIA: Right. So it becomes part  
3 of the record and potentially creates -- for those who may  
4 want to see the cleaner technology, it gives them some  
5 leverage in litigating or looking at the project, right,  
6 which gets back, I think, to your comment about how we  
7 move forward on appropriate regulation to move things  
8 along.

9 EXECUTIVE OFFICER COREY: Yes. And Supervisor  
10 Gioia, I just wanted to add a little bit to the comment.  
11 In addition to strategically identifying those projects  
12 that we're going to comment on, and the Worldwide  
13 Logistics Center was, I think, a very important example,  
14 that had an impact, because it identified very clear  
15 opportunities for much lower emissions for a project  
16 that's going to be in place for decades. Finding those  
17 projects, getting that comment out in a very public way  
18 has an impact.

19 The other is, and the conversation that we've  
20 been having with the air districts through CAPCOA, is a  
21 supplement to the land-use guidelines, because as Sydney  
22 indicated, you know, decisions are at the local level.  
23 And from the air quality standpoint, the air districts are  
24 weighing in, and they're working closely with us in terms  
25 of can a supplement strengthen those guidelines, because

1 they're weighing in and commenting on the projects as  
2 well, and partnering with us, and identifying where there  
3 may be opportunities we can have more influence.

4           So, one, identifying strategically those where --  
5 that we can comment on, and send a very clear signal to  
6 through the partnership with the districts to comment as  
7 well. And both of those are playing themselves out that  
8 serve, I think, as the bridge that you're describing.

9           VICE CHAIR BERG: And also when we're looking  
10 at -- can -- is there a way for us to be able to be more  
11 assertive in these comments to let people know that ARB is  
12 very committed to the sustainable freight and regulation  
13 will be coming down the pike.

14           They have a choice now to be able to be ahead of  
15 the regulation. But quite frankly, if they chose not to,  
16 I don't know how my other Board members would feel, but I  
17 wouldn't feel as compelled that they chose to strand their  
18 assets, because they chose not to be proactive.

19           I'm much more sympathetic to people that have  
20 stepped up to be in compliance with current regulation,  
21 and to give them their useful life of that asset. But  
22 people that truly have the choice in these very, very  
23 large projects, they do have choice. And so to stand up  
24 in a couple of years from now and cry the stranded asset  
25 cry, I'd be much less compelled on that, given that we

1 were notifying them, giving them ideas, really, strongly  
2 suggesting be proactive.

3 TRANSPORTATION AND TOXICS DIVISION CHIEF MARVIN:

4 You raise and excellent point, Vice Chair Berg.

5 I just wanted to note that one of the disconnects here is  
6 that our regulations, as you're well aware, are typically  
7 about the owners of the equipment. And the difficulty is  
8 that many of these are facilities that are being built.  
9 Of course, many of the facilities do not own the  
10 equipment. And so that's why we are trying to take a  
11 broader approach both in the comments, and it's also why  
12 we're looking at potentially a facility-cap type approach,  
13 which would require both the facility owner, operator, and  
14 the equipment owner, you know, to all be part of that  
15 solution.

16 VICE CHAIR BERG: And I know that's not popular  
17 from their perspective. So this is a real opportunity for  
18 them to creatively get together and show us what they can  
19 do, because there are solutions that they could come up  
20 with. They obviously lease the property. There's all  
21 sorts of things that if they chose to -- it's complicated,  
22 and I understand that, but to be proactive would be  
23 refreshing, so I'd like to encourage that wherever we  
24 could.

25 And with that, I want to keep moving down the

1 line. Dr. Balmes.

2 BOARD MEMBER BALMES: Thank you, Vice Chair Berg.

3 I would like to take this opportunity to thank  
4 staff for all their hard work and excellent update. I  
5 also want to thank all the witnesses from the California  
6 Clean Freight Coalition for both their support of what  
7 staff has done and they're pushing us to do more.

8 I guess my comments -- I'm going to try to take a  
9 page from Dr. Sperling's book and try to have a big  
10 picture view. As staff pointed out, we have a big job in  
11 front of us. I mean, we're predicting 25 percent increase  
12 in freight over the next few years, and that's a lot of  
13 emissions that we have to control, on top of what we  
14 currently have.

15 And as was pointed out by Mr. Corey in the  
16 first -- or, I guess, second item, in terms of Board  
17 priorities, we've got, you know, an ambitious program  
18 ahead of us. That said, I don't see how we're going to  
19 get there at this point. Not that I have the magic  
20 answer, but I just want to emphasize to, I think, staff  
21 and fellow Board members, and probably most of the  
22 witnesses share my concern about getting there.

23 But we're going to need a lot of resources, in  
24 addition to a lot of creative thinking, to meet our goals  
25 of a sustainable freight system here in California that's

1 also as clean as we need it to be. So I guess I'm  
2 concerned about where all these resources are going to  
3 come from.

4 Like fleet turnover, we've been talking about  
5 how, you know, owner/operators have already invested  
6 heavily, and, you know, what to do if we're going to  
7 mandate zero emission vehicles. You know, but it's the  
8 infrastructure for zero emission vehicles as well. And  
9 again, I'm not telling anything to the group that the  
10 group doesn't know, but I feel it important to step us  
11 back. You know, I really don't think that as good as they  
12 are, the pilot projects and the various ideas that we've  
13 come up with are enough. I mean, they're a start. I'm  
14 supportive of what staff has outlined, but I think we need  
15 much more and that's where I'm concerned.

16 I wanted to thank my colleague, Professor  
17 Sperling, for his work on the efficiency think thank. I  
18 can't think of a better name for what Dr. Sperling might  
19 lead than a think thank.

20 (Laughter.)

21 BOARD MEMBER BALMES: I appreciate his thoughts  
22 both large and small. And also, I think it's very  
23 interesting to learn that he has given qualified support,  
24 at least to thinking about, a freight zero emission  
25 vehicle regulation. Because I think that's where -- in my

1 mind, in my naive mind, that's where we need to go.

2 But I also agree with him that we can't be so  
3 prescriptive, you know, at the nitty-gritty level. It  
4 really has to be more of a performance type of standard  
5 with flexibility.

6 When I was up for confirmation as a Board member,  
7 I stressed that I was both -- my phone is going off,  
8 great -- I stressed that I was both going to try to be a  
9 champion for environmental justice and to be always  
10 mindful of keeping the California economy strong, so we  
11 can afford to be mindful about environmental justice.

12 So I appreciate the testimony we've heard today  
13 about wanting us to do more, and especially to try to  
14 protect the health of impacted communities. I'm  
15 supportive of trying to do that. That's why we need to  
16 move forward at as fast of a pace as possible. But I  
17 challenge us in California to come up with the resources  
18 to properly do the job.

19 VICE CHAIR BERG: Thank you.

20 And Supervisor Serna.

21 BOARD MEMBER SERNA: Thank you, Vice Chair Berg.  
22 First of all, I apologize for not being here to hear the  
23 full presentation by staff. I've yet to perfect the art  
24 of being in two hearings at the same time, and certainly  
25 was looking forward to hearing from members of the public

1 and various advocacy organizations on this important  
2 topic.

3           Obviously, there's kind of little choice but to  
4 be aggressive on the timeline to get us to a final plan  
5 here in five short months. But I do want to state that  
6 I -- you know, I did have an opportunity to meet with the  
7 Coalition for Clean Air and -- recently, and, you know,  
8 they had, I thought, some very valid points about the  
9 substance of the plan being aggressive, not just the  
10 schedule that we have based on an Executive Order, but,  
11 you know -- and I think, for the most part, staff is doing  
12 that, and I agree with that.

13           So, first of all, I want to thank everyone  
14 involved with getting us to this point for keeping a sharp  
15 eye on the ambition of being very aggressive on this  
16 subject. I note that one of the slides in the  
17 presentation outlines the schedule. It suggests there  
18 were, I guess in the midst of, some nine public workshops.  
19 So my question is -- and again forgive me if this was  
20 asked and answered earlier, how, if at all, are we going  
21 to engage early information sharing and feedback from our  
22 Environmental Justice Advisory Committee in conjunction  
23 with the nine public workshops. I'm not sure which staff  
24 person is best equipped to answer that question.

25           FREIGHT TRANSPORTATION BRANCH CHIEF ARIAS: Yeah,

1 I will take that one. We did briefly talk about the  
2 upcoming workshops, which are starting Tuesday, and  
3 throughout the State followed by a webinar. We have been  
4 very fortunate to be able to have lots of opportunities  
5 with all the various stakeholders, including the  
6 environmental group. CCFC has spent a lot of time with  
7 us, in particular offered their time to come and meet with  
8 us and go through their ideas and actions.

9 We have tentatively scheduled a meeting with them  
10 after the workshops to sit down with all the  
11 multi-agencies and then to hear their response to what  
12 they see at the workshop, because obviously what we put  
13 out at the workshop is going to be more extensive, more  
14 details than what we had time to go through today.

15 So we absolutely look forward to hearing from  
16 them and their thoughts on that. I also just wanted to  
17 touch briefly on a few of the comments that have been put  
18 forth in regards to concerns as to whether or not the plan  
19 itself is going to show us how we get to the end game.

20 And ultimately, we are laying out the statewide  
21 vision for 2050, that includes the zero and near zero. We  
22 are going to set the targets as the Executive Order calls  
23 for. The actions and the pilots that are going to be in  
24 the draft document that we hope to get out for your review  
25 soon in the next few months are intended to be able to

1 show how we're going to begin that process.

2           We do not intend to be able to lay out the full  
3 plan, because we are talking about a multi-decade effort.  
4 However, the agencies have unitedly come together and  
5 committed to make this an iterative process. We do expect  
6 to continue to work together as we move forward. Caltrans  
7 has the statutory authority to update their freight  
8 mobility plan every five years. And they fully intend to  
9 be able to take the work that we've put here, continue the  
10 multi-agency effort, track our progress on all the various  
11 friends on meeting the targets, and making progress  
12 towards the 2050 vision.

13           We will have an opportunity to continue to work  
14 with them and adjust accordingly. As we've talked about  
15 earlier today, the Board, as well as the other agencies,  
16 always take the opportunity to learn from what we've done  
17 moving forward, and push new opportunities. And we are  
18 looking forward to starting that, but making sure that we  
19 also understand that we're not done with this plan, and we  
20 have a lot of work ahead of us.

21           DEPUTY EXECUTIVE OFFICER CHANG: I just also  
22 wanted to address your specific question about the  
23 involvement of the Environmental Justice Advisory  
24 Committee. So the Environmental Justice Advisory  
25 Committee has not been specifically involved in this

1 effort, as Heather mentioned. There's been a significant  
2 group of environmental and environmental justice groups  
3 that are working through the CCFC, and that's been sort of  
4 the main contact on the sustainable freight strategy.

5 The strategies that are in the sustainable  
6 freight strategy are going to be incorporated into the  
7 State Implementation Plan, and they're going to form the  
8 foundation of the transportation strategy in the scoping  
9 plan. To the extent that the Environmental Justice  
10 Advisory Committee wants to be involved in that process,  
11 that's another venue. Although, there is some cross-over  
12 in terms of the members of the EJAC and the members of the  
13 CCFC.

14 BOARD MEMBER SERNA: One suggestion I would have  
15 if this hasn't already been set in motion is to, since we  
16 have an EJAC that is comprised of members from across the  
17 State, and I assume the nine workshops are across the  
18 State, in different places in the State, if you haven't  
19 already kind of cross-referenced the general regions or  
20 areas where various EJAC committee members are from,  
21 extend a very deliberate invitation to those EJAC members  
22 in their respective regions to those workshops, so that  
23 they have an opportunity to participate outside of the  
24 context of just a committee meeting.

25 DEPUTY EXECUTIVE OFFICER CHANG: Great. Thank

1 you.

2 BOARD MEMBER SERNA: Thank you.

3 VICE CHAIR BERG: Thank you.

4 And with that, I'd like to welcome our Chair.

5 CHAIR NICHOLS: Thank you.

6 VICE CHAIR BERG: You were at the State of the  
7 State this morning?

8 CHAIR NICHOLS: I was. I was.

9 VICE CHAIR BERG: Welcome.

10 CHAIR NICHOLS: Thank you. I had an opportunity,  
11 of course, to go over the report with the staff. And I've  
12 seen some of the comments the ones that were submitted in  
13 advance of the meeting, so I have a pretty good sense,  
14 especially now that I've listened to my fellow board  
15 members thoughts to see how this is shaping up. But I  
16 would like to add just a couple of things, because it's  
17 irresistible to me to try to stitch together seemingly  
18 disparate comments and points of view, especially where  
19 there may seem to be conflicts.

20 So I want to start off by quoting from the State  
21 of the State Address, since it was just given this morning  
22 while you all were working, and comes from the man who  
23 appointed all of us to this Board. So let me read to you.

24 Quote, "Here at the State Capitol, we often think  
25 we have more control over things than we actually do. But

1 the truth is that global events, markets, and policies set  
2 the pace and shape the world we live in. The challenge is  
3 to solve today's problems without making those of tomorrow  
4 even worse. We face a future that is partly determined  
5 and yet, in many ways, unknown. Our job is to clearly  
6 face the facts we do know and prepare for the many  
7 unknowns as best we can".

8 Now, that obviously was intended to apply to a  
9 variety of different circumstance. I don't think he was  
10 looking at me when he said those paragraphs.

11 (Laughter.)

12 CHAIR NICHOLS: But I felt -- I feel those words  
13 are quite applicable actually to the kind of discussion  
14 that we've just had here, because, you know, freight or  
15 goods movement is not a sector. It's not even sort of a  
16 clearly definable piece of the economy that can be  
17 separated from other things. It is very complex. And so  
18 it would be I think foolish to think that we, at ARB,  
19 especially all by ourselves were going to transform it, in  
20 some way. Not going to happen.

21 On the other hand, we do have some areas in which  
22 we are the experts, in which we do have our hands on the  
23 levers and where we have responsibilities that we have to  
24 carry out. So it's kind of, you know, figuring out how to  
25 balance those two things. It seems to me that the great

1 thing that we have, and I'm sure this was touched on  
2 before I got here with this initiative, is the  
3 participation of the other key agencies that also bring  
4 money and, frankly, power to the table, as well as  
5 influence and relationships with stakeholders that go well  
6 beyond anything that the ARB has ever really attempted  
7 acting all by itself.

8           And I guess as I visualize this thing, the  
9 sustainable freight strategy -- it is an ongoing strategy.  
10 But I remember the last time that something was attempted  
11 that was somewhat similar to this, which was in a previous  
12 administration, where the result of it was a multi-billion  
13 dollar bond act that was passed by a vote of the people  
14 that brought more money into transformative type  
15 activities and technologies than anything ever before that  
16 had done?

17           Now, we have a lot of other tools that we're at  
18 least thinking about that go well beyond just, you know,  
19 direct funding through grants. But clearly, the financing  
20 piece of this has got to be at the center of it all, or we  
21 don't get to move the technologies forward that we all  
22 know about.

23           So I'm pretty excited about the potential here.  
24 And I think that the staff is working in a very creative  
25 way to try to bring to bear all of these -- all of these

1 different tools and resources, while being appropriately  
2 humble about what we get to do all by ourselves.

3           But I think the fact is that, you know, our job  
4 is to do the regulatory piece of it, and to do the plans  
5 that have to be done to meet the air quality standards.  
6 So we can't let ourselves escape that.

7           I would just say one other thing, because I can't  
8 resist it. I hate signing letters or receiving letters  
9 that list a whole bunch of things that you ought to think  
10 about when there's no muscle to back it up. You get  
11 letters from bureaucrats, those of you in local agencies  
12 get letters from State agencies, that sort of have this  
13 kind of vaguely threatening tone to them, but you don't  
14 really know what's going to happen, other than maybe  
15 somebody will file a lawsuit or use it in CEQA litigation.

16           And you -- you know, it doesn't make you feel  
17 good about adopting those strategies, let's put it that  
18 way. I mean, I think if we were to rely primarily on our  
19 comments on projects as a tool for getting people to do  
20 what we think they should do, we really would not be  
21 getting -- we wouldn't be getting very far.

22           So not to say that you don't have to comment on  
23 projects from time to time, but I really do hope that we  
24 adopt a strategy more along the lines of what Ms. Berg was  
25 talking about when it comes to looking at these big

1 projects that are going to live for decades, and that are  
2 going to suck up a lot of funds to intervene earlier, and  
3 be more in the community through our partners at the air  
4 districts, through our own staff efforts, things like the  
5 handbook, so that we're really being part of the solution  
6 and not just part of the problem.

7           But I think we could -- I think we could manage  
8 to do that. So anyway, those are my last thoughts on this  
9 matter, and I'll ask you to take us to the break then.

10           VICE CHAIR BERG: Great. Well, this is an  
11 information update, so no Board action is required.

12           And so we'll bring this agenda item to a close.  
13 We're going to break for lunch now. We will come back at  
14 1 o'clock, and we have three more items this afternoon,  
15 and look forward to seeing everybody at 1 o'clock.

16           Thank you

17           (Off record: 11:55 AM)

18           (Thereupon a lunch break was taken.)

19

20

21

22

23

24

25

## 1 A F T E R N O O N S E S S I O N

2 (On record: 1:04 PM)

3 CHAIR NICHOLS: Welcome back, everybody. Those  
4 who are not actually sitting in their seats are in the  
5 back where they can hear, so I think we should get going.6 And I want to welcome everybody back. This item  
7 is actually a very good follow-on to the one that we were  
8 talking about just before we broke for lunch, because the  
9 Heavy-Duty Diesel Truck and Freight Enforcement Program is  
10 probably one of the few things that everybody agrees is an  
11 essential element of our strategy for sustainable freight.12 And that is companies that are subject to our  
13 rules are anxious to see the rules enforced, because they  
14 know that people who aren't following the rules and  
15 getting away with it are getting away with something which  
16 is anti-competitive and is a problem. And a good  
17 enforcement program is absolutely key to convincing, not  
18 only the regulated community, but the people who look to  
19 us for protection of their health that we're actually  
20 doing the things that we say we're doing.21 So with that, I'm going to turn this over to Mr.  
22 Corey to introduce.

23 EXECUTIVE OFFICER COREY: Thanks, Chair Nichols.

24 And as you said, the immediate actions included  
25 in the sustainable freight strategy discussion document

1 were initiated to deliver additional emission reductions  
2 and further reduce health risks in disadvantaged  
3 communities, and staff has acted and delivered on that  
4 goal. We'll talk about it. Our move made significant  
5 progress.

6 Today's presentation provides an overview of the  
7 Enforcement Division and its approach to compliance with  
8 diesel regulations in its response to commitments in the  
9 sustainable freight strategy April discussion document.

10 And with that, I'll introduce Heather Brown who  
11 will give the staff presentation.

12 Heather.

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

15 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

16 MANAGER BROWN: Thank you, Mr. Corey. Good afternoon,  
17 Chair Nichols and members of the Board. Today's  
18 presentation will provide an overview of the enforcement  
19 division and the ways in which diesel program enforcement  
20 is being enhanced to meet current enforcement challenges.

21 --o0o--

22 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

23 MANAGER BROWN: In addition to providing an overview of  
24 the Enforcement Division as a whole, I will specifically  
25 discuss enforcement of ARB's diesel programs, wherein many

1 cases we have achieved full compliance, and in some cases  
2 we are addressing challenges.

3 I will discuss what we have done to enhance  
4 enforcement in response to the commitments made and the  
5 sustainable freight strategy discussion document released  
6 in April 2015, and also what we have done to improve the  
7 efficiency of diesel program enforcement overall.

8 --o0o--

9 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

10 MANAGER BROWN: The Enforcement Division consists of 136  
11 staff scientists, engineers, and administrators, and 41  
12 intermittent technicians who work closely with ARB's Legal  
13 Office to enforce more than 70 ARB programs.

14 Enforcement Division staff also worked diligently  
15 and in partnership with regulatory staff to provide  
16 training and compliance assistance to the regulated  
17 industry and support to local air district enforcement  
18 programs.

19 --o0o--

20 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

21 MANAGER BROWN: The goal of enforcement is compliance.

22 To achieve compliance, ARB trains the regulated  
23 industry on ARB regulatory requirements and conducts  
24 compliance assistance and outreach among the regulated  
25 community using a variety of innovative mechanisms.

1           The Enforcement Division also conducts field  
2 inspections of individual emission sources, which result  
3 in citations issued and penalties assessed for  
4 noncompliance, and requires compliance before a citation  
5 will be cleared.

6           We also investigate entire companies, which  
7 result in penalties for noncompliance and requires  
8 compliance, and in some instances reporting before the  
9 violations can be cleared.

10           We develop partnerships with other agencies to  
11 expand our enforcement presence and address community  
12 concerns.

13           We use the media to disseminate information about  
14 our programs and settlements.

15           And the Enforcement Division also supports and  
16 develops regulatory amendments to improve implementation  
17 and enforceability.

18                           --o0o--

19           STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION  
20 MANAGER BROWN: Once violations of ARB regulation  
21 requirements are discovered, the responsible party is  
22 notified, given an opportunity to discuss the violations,  
23 and asked to provide additional information necessary to  
24 consider. Violations are then resolved with compliance,  
25 and penalties are assessed in consideration of all of the

1 relevant circumstances listed on this slide, as required  
2 by law. This process ensures the fair and consistent  
3 enforcement of all ARB programs.

4 --o0o--

5 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

6 MANAGER BROWN: As part of ARB's overall enforcement  
7 program, we enforce all of the diesel regulations adopted  
8 by the Board. These regulations apply to a wide array of  
9 vehicles and equipment that operate at ports, railyards,  
10 distribution centers, and disadvantaged communities, and  
11 on the State highway system.

12 --o0o--

13 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

14 MANAGER BROWN: Many of the programs we enforce have high  
15 compliance rates. These programs tend to have relatively  
16 fewer regulated entities or relatively fewer locations  
17 where vehicles and equipment operate. Enforcement staff  
18 can focus effectively on these regulated sources,  
19 providing hands-on compliance assistance and enforcing  
20 when companies do not comply. Other programs have lower  
21 compliance rates and present enforcement challenges.

22 --o0o--

23 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

24 MANAGER BROWN: Many diesel regulations focus on the  
25 vehicle or equipment operator. There may be tens of

1 thousands of regulated entities, many of which are not  
2 based in California. Many are small businesses and many  
3 are not familiar with new technology. Some speak English  
4 as a second language.

5 At the same time, regulatory requirements are  
6 complex and may require significant investment. To meet  
7 the enforcement challenge, our strategies must evolve.

8 --o0o--

9 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

10 MANAGER BROWN: Compliance assistance and outreach efforts  
11 are a key strategy in trying to achieve meaningful  
12 compliance among sources affected by diesel programs. ARB  
13 assists businesses in understanding rule requirements in a  
14 timely, accurate, and plain language format by use of  
15 multiple, innovative, outreach mechanisms.

16 Every year, we reach tens of thousands of  
17 regulated entities directly over-the-phone, in-training  
18 classes, and in special events across the State, and  
19 indirectly through our website, direct mail, and media  
20 campaigns. Outreach efforts help generate goodwill among  
21 the regulated community.

22 --o0o--

23 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

24 MANAGER BROWN: In April 2015, ARB released its  
25 sustainable freight strategy discussion document, which

1 called for enhanced enforcement in four areas: Expanded  
2 presence, focus on freight hubs, increase in efficiency,  
3 and leveraging technology.

4           The Enforcement Division has responded to each  
5 consistent with the needed evolution in enforcement  
6 processes.

7           We have developed partnerships and held media  
8 events. We increased inspections in disadvantaged  
9 communities. We are becoming more efficient, and we are  
10 supporting the development of improved monitoring  
11 technology.

12                           --o0o--

13                   STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

14           MANAGER BROWN: To expand our enforcement presence, we  
15 have extended agreements with various local air districts,  
16 ports, and federal agencies to enforce our diesel related  
17 regulations. Through these partnerships, air districts  
18 and ports can write citations for non-compliant vehicles  
19 and equipment.

20           We have also recently developed a partnership  
21 with U.S. EPA Region 9, which has initiated truck and bus  
22 rule fleet investigations under the federal authority of  
23 the Clean Air Act. In September 2015, Region 9 settled  
24 their first case with an out-of-state trucking fleet for  
25 violations of the truck bus rule.

1           Additionally, staff held three enforcement  
2 related media events this year in the Los Angeles area and  
3 the San Joaquin Valley. These events resulted in the  
4 dissemination of information about diesel truck programs  
5 and enforcement through 13 different media outlets.

6           Lastly, we have expanded outreach to  
7 disadvantaged communities and environmental justice task  
8 forces by assembling a team that is working to develop new  
9 relationships with various community-based grassroots  
10 organizations.

11                           --o0o--

12                           STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

13 MANAGER BROWN: The Enforcement Division's environmental  
14 justice team consists of five members that are assigned to  
15 geographical locations across the State, including the Bay  
16 Area, the Central Valley, the greater Sacramento area, the  
17 South Coast region, and the border region.

18           The team attends community meetings, such as the  
19 IVAN networks, in their assigned area to listen to  
20 community issues. The team then works to address those  
21 issues through education, training, and enforcement  
22 actions. Our goal is to communicate regularly and  
23 effectively with community representatives to understand  
24 and act on community concerns, to use information from the  
25 community to initiate enforcement investigations, and to

1 report back the results of these investigations once  
2 completed.

3 --o0o--

4 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

5 MANAGER BROWN: Field enforcement is an important aspect  
6 of our overall enforcement program. This map shows where  
7 ARB field inspections have occurred from July 2014 through  
8 June 2015. Field inspections include inspections of a  
9 wide array of vehicles and equipment that operate  
10 throughout the State, in and around disadvantaged  
11 communities, at ports, railyards, distribution centers,  
12 major freight corridors, and random road-side locations.

13 --o0o--

14 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

15 MANAGER BROWN: This chart shows the number of truck  
16 inspections and number of citations issued at the roadside  
17 from January to September 2013, 2014, and 2015. The  
18 height of each bar shows the total number of inspections.  
19 The dark blue portion of each bar shows the number of  
20 inspections in disadvantaged communities.

21 As you can see, the number of inspections in  
22 disadvantaged communities increased substantially in 2014,  
23 and again in 2015. The blue line shows the number of  
24 citations issued in each year. The number of citations  
25 also has increased substantially each year, growing from

1 3,000 citations in 2014 to nearly 4,000 citations in 2015.

2 Not shown on the chart is the fact that penalties  
3 from citations have also increased from 2013 to 2015. The  
4 total penalties collected from non-compliant truck  
5 citations issued in the field were approximately 1.3  
6 million in 2013, 1.7 million in 2014, and 2.9 million in  
7 2015.

8 This increase in citations issued and penalties  
9 is possibly due to lower compliance rates in disadvantaged  
10 communities and also possibly due to the growing number of  
11 fleets having compliance requirements under the truck and  
12 bus rule each year, thereby increasing the overall number  
13 of non-compliant fleets operating in California.

14 --o0o--

15 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

16 MANAGER BROWN: Staff conducted 3,799 equipment  
17 inspections at ports and railyards in 2015, all of which  
18 were in disadvantaged communities. As a result of the  
19 relatively fewer number of regulated entities and the  
20 relatively fewer locations where vehicles and equipment  
21 operate, we find that the ports have a very high overall  
22 compliance rate.

23 We find higher noncompliance with drayage trucks  
24 at railyards and with the fewer number of ships using low  
25 sulfur fuel oil to meet fuel requirements. Moving

1 forward, we will be shifting our focus to these more  
2 non-compliant programs, in addition to providing more  
3 focus on shore-power requirements and opacity standards  
4 for cargo handling equipment.

5 --o0o--

6 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

7 MANAGER BROWN: In addition to field enforcement efforts,  
8 ARB staff also performed diesel fleet investigations to  
9 ensure full fleet compliance with all applicable diesel  
10 regulations. It currently takes an average of 12 months  
11 to complete a diesel fleet investigation. Between January  
12 1, 2015 and September 30, 2015, we closed 253 heavy-duty  
13 diesel fleet investigations, collecting approximately 2.9  
14 million in penalties and bringing 2,784 trucks into  
15 compliance.

16 --o0o--

17 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

18 MANAGER BROWN: With the increasing number of entities  
19 subject to the truck and bus rule, the Enforcement  
20 Division began looking at strategies to increase the  
21 efficiency of truck and bus rule enforcement with the goal  
22 of increasing the number of non-compliant fleets audited  
23 each year, thereby bringing more fleets into compliance.

24 Some of the strategies being implemented as we  
25 work toward this goal include: More streamlined citations

1 processing, implementing a new smart audit approach,  
2 increasing our focus on hiring entities such as brokers,  
3 and more streamlined processing for qualifying medium and  
4 small fleets.

5 --o0o--

6 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

7 MANAGER BROWN: In processing citations, the focus had  
8 been on bringing the cited truck owner's entire fleet into  
9 compliance with the truck and bus rule. This was an  
10 effective way of ensuring full fleet compliance, but it  
11 led to extended processing time and a backlog of  
12 unprocessed citations.

13 In order to speed up the citation processing  
14 time, but still ensure compliance, the current approach  
15 will be altered to focus on bringing the cited truck into  
16 compliance and then integrating citations into a smart  
17 audit approach designed to target the most non-compliant  
18 fleets.

19 --o0o--

20 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

21 MANAGER BROWN: The smart audit approach involves the  
22 merging of multiple data sources into one database. These  
23 sources include California and 49 state DMV registration  
24 data, ARB compliance databases, citations and complaints,  
25 safety inspection databases, motor carrier permits, and

1 any available data on high emitters.

2           Vehicles are grouped by fleet, and each fleet is  
3 evaluated using multiple audit indicators. The fleets are  
4 ranked by size and level of noncompliance and are  
5 prioritized for enforcement. This system is currently  
6 being automated for efficiency and will be completed this  
7 summer.

8                               --o0o--

9           STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

10 MANAGER BROWN: The merging of various data sources and  
11 the evaluation of fleets through the smart audit approach  
12 will allow us to better assess overall truck and bus  
13 compliance rates and help inform decisions on where to  
14 focus resources so that we are targeting the most  
15 non-compliant fleets.

16           This process will also reduce fleet investigation  
17 time by identifying fleet vehicles at the start of an  
18 audit, rather than taking additional time to gather fleet  
19 information during an audit.

20                               --o0o--

21           STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

22 MANAGER BROWN: Another strategy being implemented to  
23 increase the efficiency of truck and bus rule enforcement  
24 is to focus enforcement on brokers and motor carriers that  
25 are hiring fleets. The truck and bus rule requires these

1 brokers and motor carriers to verify and maintain records  
2 of vehicle compliance prior to hiring the vehicle.  
3 Focusing enforcement on these entities will ensure that  
4 they are, in fact, verifying and only hiring compliant  
5 fleets, and will therefore significantly increase the  
6 number of fleets we are able to reach. Investigations of  
7 these entities are currently underway.

8 --o0o--

9 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

10 MANAGER BROWN: More streamlined approaches for qualifying  
11 small and medium fleets are also being implemented as a  
12 strategy for bringing more fleets into compliance while  
13 recognizing the unique economic hardship situations that  
14 exist. Most settlements for truck and bus rule violations  
15 involve a finding of economic hardship.

16 Streamlined procedures will reduce processing  
17 time and while still balancing time to comply and  
18 penalties with economic hardship. Fleets will be provided  
19 a final opportunity to comply and will be required to  
20 complete small business training. Further enforcement  
21 action will be taken on any fleet not meeting compliance  
22 requirements.

23 --o0o--

24 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

25 MANAGER BROWN: Lastly, the Enforcement Division is

1 working with ARB research staff to develop advanced  
2 detection systems that will better identify trucks and  
3 ships with high emissions and target them for enforcement  
4 and compliance assistance. Staff has implemented remote  
5 sensing pilot projects for ships and for trucks.

6 For example, we are currently working with U.S.  
7 EPA, Coast Guard, and South Coast Air Quality Management  
8 District staff to determine if such testing could be used  
9 to enforce the federal emissions control area for ships  
10 within 200 nautical miles of shore. Here in California on  
11 the roadside, emissions measurements could be used in the  
12 future to rapidly diagnose trucks operating with damaged  
13 diesel particulate filters.

14 --o0o--

15 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

16 MANAGER BROWN: Moving forward, the Enforcement Division  
17 will continue working to assess compliance rates for each  
18 enforced program to better inform decisions on where to  
19 focus resources and to target less compliant programs.

20 We will continue the development of innovative  
21 solutions to increase our effectiveness, including:  
22 Partnering with other agencies to expand our enforcement  
23 presence, further developing media strategies to increase  
24 visibility and deter noncompliance, supporting the design  
25 of regulations to ensure maximum enforceability, and



1 providing effective compliance assistance, and to create  
2 incentives for compliance.

3 --o0o--

4 STATEWIDE TRUCK AND BUS ENFORCEMENT SECTION

5 MANAGER BROWN: More needs to be done, and we are up to  
6 the taks. This concludes my presentation.

7 Thank you.

8 CHAIR NICHOLS: Thank you. We did not have any  
9 witnesses to signed up to comment on this, so it's up to  
10 the Board members, if they have any questions or comments  
11 about enforcement. This is really an impressive job of  
12 sort of rethinking and restructuring that's going on here  
13 in this program. It's good to hear about it. I suppose  
14 we should be happy that nobody came to testify, because it  
15 means that they think we're dog a good job, right?

16 (Laughter.)

17 CHAIR NICHOLS: We'll take it that way anyhow.

18 VICE CHAIR BERG: I would like to thank the  
19 enforcement staff. That definitely falls under the  
20 category of no good deed goes unpunished most of the time.  
21 And being a regulated party, I have also worked with the  
22 enforcement staff, voluntarily as I did.

23 (Laughter.)

24 VICE CHAIR BERG: But I've --

25 CHAIR NICHOLS: Should we check your record?

1 (Laughter.)

2 VICE CHAIR BERG: Yeah.

3 Actually, under a regulated party, I work a lot  
4 with DTSC too as well. And what I really find is if most  
5 people really want to be in compliance, they either --  
6 especially on small. I can only speak on behalf of small  
7 businesses really, and medium-sized businesses. And they  
8 often find themselves behind the eight ball as to finding  
9 out things, as quite frankly I did sitting on this Board.

10 And having a department where there is  
11 self-reporting, where there is a mechanism to come and to  
12 get into compliance, and to pay your penalty as  
13 appropriate, but allowing you to get back to business is  
14 so important. So I really applaud our Enforcement  
15 Division for your really hard work. And you're very  
16 small, but mighty.

17 I can also -- absolutely, I believe 100 percent  
18 without enforcement, the regulation would be toothless,  
19 because people are kind of like water. They go in the  
20 easiest path forward. And when they find out that there  
21 is going to be accountability, they step up.

22 So it's very important work. I often feel like  
23 you're the unsung heroes. We all have lots of examples  
24 where we can point to where there might have been an  
25 unfairness or heavy handedness. But by and large, you

1 guys are very vital, doing a great job, and I just  
2 personally want to thank you for that.

3 CHAIR NICHOLS: Thank you.

4 I think that may be it. Oh, sorry, excuse me.  
5 Hector.

6 BOARD MEMBER DE LA TORRE: I'll start by echoing  
7 the sentiment of how hard it is to do what you're doing.  
8 And clearly, we're getting results from it, but it's not  
9 enough.

10 And so when I'm driving on the 710 Freeway and  
11 you guys have heard this numerous times, and I'm telling  
12 my son to jot down the license plate number of a truck  
13 that's smoking and then subsequently, you know, going  
14 on-line and reporting it, it is an almost everyday  
15 occurrence. And these trucks are running all over the  
16 place obviously.

17 I think two things. One, building up more  
18 partnerships like you did in Commerce on the truck idling  
19 to have more eyes out there catching these folks doing  
20 these things, so it isn't just all you. Those kinds of  
21 partnerships I think we need to make more robust. I had a  
22 conversation with some staff in the City of Long Beach  
23 mentioning the Commerce work. And they assured me that --  
24 well, they liked the idea, and then they assured me they  
25 were going to do it. I don't think they have. That's not

1 on you. That's on them.

2 But I think going along with 710 corridor to  
3 those cities and partnering with all of them to get them  
4 to help out in this, would be great -- would be very  
5 helpful, and finding other opportunities to do work like  
6 that.

7 And then secondly, I think -- I know during the  
8 briefing that you're thinking up new approaches to be more  
9 efficient, to get more folks monitored, that you're  
10 thinking of ideas. And so I think it's incumbent upon us  
11 to find the resources to fund that additional enforcement  
12 that is needed out there.

13 I'll close with this. I was in San Bernardino  
14 last week. And in talking about some of our  
15 accomplishments, I mentioned the ports, right? There's no  
16 truck that's older than 2007 coming in and out of the  
17 ports. Well, someone in the group shot back, "Yeah,  
18 they're all out here".

19 (Laughter.)

20 BOARD MEMBER DE LA TORRE: And that's not good.  
21 You know, obviously, we've benefited from that in our  
22 area, but we can't have these older, smokier trucks going  
23 to other parts of the state and hurting other people.

24 So I think this is our -- one of our big  
25 challenges as an entity, as an agency to go out and

1 enforce all of the regulations that we all keep voting on.  
2 So thank you.

3 CHAIR NICHOLS: Good comments, both. Do you want  
4 to say anything about the environmental justice aspects of  
5 the enforcement program, of how you target enforcement?

6 ENFORCEMENT DIVISION CHIEF SAX: Yeah. I can  
7 talk a little bit about that. So there's sort of two  
8 aspects to environmental justice that we're working on.  
9 One, is that we have -- we mentioned in the presentation,  
10 we have created a team internally. And they are going to  
11 task forces across the state. We want to get input from  
12 the local communities that are having to deal with these  
13 issues. We think they have good eyes on the ground. We  
14 think they know what the major problems are, and we want  
15 to be able to try to address those.

16 The second issue is trying to ramp up where we do  
17 our enforcement. And you saw from our slide that we're  
18 trying to do more work at roadside locations in  
19 disadvantaged communities. And you've seen from that that  
20 it appears to have borne fruit, at least in terms of more  
21 citations. That's not necessarily a good thing. It's  
22 indicative of what everyone has been saying, which is that  
23 there's more noncompliance in disadvantaged communities.  
24 And that is a challenge for us to deal with.

25 There are -- the compliance rates for the truck

1 and bus program are not where they need to be. We realize  
2 that. When Hector says he goes up and down the 710 and  
3 sees this, I believe him. I see it on Watt Avenue going  
4 up and down the street every day. And when I go to El  
5 Monte, you see it on I-5 all the time.

6 Our challenge, since we can't be everywhere at  
7 once, is to try to find ways to be more efficient. And so  
8 to the extent you have suggestions, to the extent that  
9 organizations in Long Beach want to partner with us, if  
10 you let us know who those are, we will follow through, and  
11 we will try to do the best that we can to get as much in  
12 force as we can in an effort to make our programs as  
13 effective as possible.

14 CHAIR NICHOLS: Great. Any other comments?

15 If not, thank you so much, and carry on. I look  
16 forward to a progress report on this one.

17 And speaking of progress reports, our next item  
18 is also an update, but this is on one of the big items  
19 that Mr. Corey presented earlier today, when he was  
20 talking about his program priorities. We're going to be  
21 looking at a lot of SIPs in the coming year. It's been  
22 quite a long time actually since there's been this much  
23 action on the SIP front. And some of the newer members  
24 may not even have lived through this experience. So no  
25 longer can this group labor away in obscurity.

1 (Laughter.)

2 CHAIR NICHOLS: You're going to get a lot more  
3 face time than you might have wished for. But this is  
4 actually -- it's a terrific group, and it is the core, in  
5 many ways, of our activities, because we are the State --  
6 the agency of the State of California that has the  
7 principal responsibility for SIPs. And the SIP is the  
8 tool that's used to comply with clean air standards.

9 So with that, I will let Mr. Corey introduce the  
10 item.

11 EXECUTIVE OFFICER COREY: Thank you, Chair.

12 This year, the Board will consider, as you noted,  
13 a number of State Implementation Plans for attaining  
14 federal ozone and PM2.5 air quality standards. In  
15 October, staff described the South Coast Region's air  
16 quality needs in the context of the mobile source  
17 strategy. In today's presentation, staff will discuss the  
18 nature of air pollution to be addressed in other regions  
19 of the State and the important role that mobile source  
20 reductions, together the local -- with local controls,  
21 will play in meeting the standards.

22 Today's presentation will also include specific  
23 focus on the unique air quality in the San Joaquin Valley  
24 that along with South Coast presents the greatest  
25 challenge.

1 I'll now ask Dr. Patricia Velasco of the Air  
2 Quality, Planning, and Science Division to begin the staff  
3 presentation.

4 Patricia

5 (Thereupon an overhead presentation was  
6 presented as follows.)

7 STAFF AIR POLLUTION SPECIALIST VELASCO: Thank  
8 you, Mr. Corey. Good afternoon, Chair Nichols and members  
9 of the Board. Today's presentation will provide a preview  
10 of the many State Implementation Plans coming to the Board  
11 over the next year. I will discuss the diverse array of  
12 air quality challenges these SIPs will address, along with  
13 the approaches needed to meet the air quality standards.

14 --o0o--

15 STAFF AIR POLLUTION SPECIALIST VELASCO: The  
16 Federal Clean Air Act sets out requirements for adoption  
17 of air quality standards. EPA is required to periodically  
18 review the latest health research to ensure that standards  
19 remain protective of public health. Based on research  
20 demonstrating adverse health effects at lower exposure  
21 levels, EPA has set a series of increasingly health  
22 protective air quality standards.

23 The SIP process established under the Clean Air  
24 Act has been effective, and an important driver for  
25 California's clean air -- air quality progress. Even as

1 standards become lower, our control programs ensure that  
2 air quality continues to improve and provides increasing  
3 public health protection. New SIPs will build on these  
4 successful efforts. But tighter standards also results in  
5 new challenges, as I will highlight for you today.

6 --o0o--

7 STAFF AIR POLLUTION SPECIALIST VELASCO: Today's  
8 vehicles and the fuels that power them, are significantly  
9 cleaner than they were 25 years ago, as a result of SIP  
10 control strategies. Cars are 99 percent cleaner and  
11 diesel PM from trucks are 98 percent lower. By 2023,  
12 nearly all trucks in California will meet 2010 model year  
13 engine standards. The number of zero emission vehicles is  
14 increasing, and as you heard earlier, over 180,000 are now  
15 on the road.

16 In addition, gasoline and diesel fuel are subject  
17 to stringent specifications, and in-use vehicle  
18 performance requirements ensure that the existing fleet  
19 remains clean. Finally, California has been a leader in  
20 reducing emissions through incentives along with many  
21 other programs.

22 --o0o--

23 STAFF AIR POLLUTION SPECIALIST VELASCO: The  
24 success of these efforts is evident in the air quality  
25 progress seen across the state. Today, more than 20

1 million people live in communities with air quality that  
2 meets current standards. This is providing significant  
3 health and economic benefits, including fewer premature  
4 deaths from -- for people with preexisting heart and lung  
5 disease, reduced hospital emissions, and reduced emergency  
6 room visits. This year's SIPs are a critical step to  
7 bringing healthy air to all of California residents.

8 --o0o--

9 STAFF AIR POLLUTION SPECIALIST VELASCO: This  
10 year, the majority of SIPs address the recent more health  
11 protective standards for ozone and PM2.5. These include  
12 the 8-hour ozone standard of 75 parts per billion, and the  
13 annual PM2.5 standard of 12 micrograms per cubic meter.

14 These SIPs will cover a variety of ozone and  
15 PM2.5 challenges. The nature of contributing sources,  
16 along with the severity and spatial extent of the  
17 remaining problem defines the scope of the control  
18 strategy needed. The strengths of our current programs  
19 will bring many areas into attainment. Other areas will  
20 meet targeted controls to address localized impacts.  
21 Finally, areas such as South Coast and the San Joaquin  
22 Valley will require comprehensive new actions to achieve  
23 clean air mandates.

24 --o0o--

25 STAFF AIR POLLUTION SPECIALIST VELASCO: ARB

1 placed multiple roles in SIP development and approval.  
2 Our research programs and technical work provide the  
3 scientific foundation for determining effective control  
4 approaches. Under State law, ARB is responsible for  
5 developing the control strategy for mobile sources, along  
6 with fuels and consumer products. Because of the critical  
7 role of mobile source controls for attainment, staff works  
8 closely with air districts in development of the overall  
9 SIP strategy.

10 As part of this effort, air districts develop a  
11 corresponding strategy for industrial and residential  
12 sources. Finally, as the lead air quality agency for the  
13 State, ARB must evaluate SIPs to ensure they meet the  
14 State law in Clean Air Act requirements. And SIPs are  
15 considered and approved by the Board before submittal to  
16 EPA.

17 --o0o--

18 STAFF AIR POLLUTION SPECIALIST VELASCO: The maps  
19 on this slide illustrate areas that have been designated  
20 nonattainment for the current ozone and PM2.5 standards  
21 shown in orange. Sixteen areas were originally designated  
22 nonattainment for the 8-hour ozone standard. They include  
23 California's large urban regions, as well as a number of  
24 rural downwind areas. Some of these areas have already  
25 come into attainment since the original designation, as I





1 Bay Area and Butte County, and the small dot in the upper  
2 Sacramento Valley representing the Tuscan-Buttes. The  
3 remaining focus for ozone SIP development is in the  
4 Sacramento and western Nevada County. Portola, in Plumas  
5 County, is the only area requiring a PM2.5 SIP.

6 --o0o--

7 STAFF AIR POLLUTION SPECIALIST VELASCO: Ozone  
8 levels in the Sacramento region have improved  
9 significantly, and the region met the 80 parts per billion  
10 ozone standard last year, two years prior to its  
11 attainment deadline. The far western and eastern portions  
12 of the Sacramento region, including much of the urban  
13 core, also meet the more stringent 75 parts per billion  
14 standard.

15 Winds carry urban emissions, which then react to  
16 form ozone as the air mass moves downwind. As a result,  
17 the highest concentrations occur in the area extending  
18 from Folsom into the foothills. Emissions in the  
19 Sacramento region are dominated by mobile sources,  
20 accounting for approximately 90 percent of all NOx.

21 A focus on continued reductions from the current  
22 mobile source control program is expected to provide for  
23 attainment by the region's 2026 attainment deadline.  
24 Ongoing reductions in the Sacramento region will also  
25 provide for attainment in western Nevada County, which

1 must meet the standard in 2017.

2 --o0o--

3 STAFF AIR POLLUTION SPECIALIST VELASCO: The  
4 remaining nonattainment area in Northern California is  
5 Portola, located in the isolated valley in Plumas County.  
6 Residents in Portola rely heavily on wood stoves for home  
7 heating, and many of these stoves are older without any  
8 type of emission controls. The resulting wood smoke  
9 becomes trapped in the valley contributing over 80 percent  
10 of PM2.5 in the region.

11 Thus, meeting the standard will require replacing  
12 these older wood stoves with cleaner more efficient  
13 models. Because many residents are low income, incentive  
14 funding is critical. EPA has recently proposed --  
15 provided close to \$3 million to fund a wood stove  
16 replacement program that will be implemented by the local  
17 air district. In addition, the Governor's budget proposal  
18 includes \$40 million to reduce residential wood smoke in  
19 rural areas like Portola.

20 --o0o--

21 STAFF AIR POLLUTION SPECIALIST VELASCO: Moving  
22 on to the central portion of California, we also see  
23 continued progress, with Calaveras, Mariposa, and eastern  
24 San Luis Obispo Counties originally designated as  
25 nonattainment now meeting the ozone standard. The focus

1 is therefore on addressing both ozone and PM2.5 in the San  
2 Joaquin Valley. These efforts will provide the reductions  
3 necessary for the remaining ozone nonattainment area in  
4 eastern Kern County to meet the standard.

5 --o0o--

6 STAFF AIR POLLUTION SPECIALIST VELASCO: Looking  
7 first at ozone, the valley tracks progress in reducing  
8 local emissions. This confirms what we have seen in field  
9 studies and air quality modeling, that a majority of ozone  
10 in the valley is generated from emissions within the  
11 valley. The graph at right illustrates this trend over  
12 the last 25 years. While there was relatively modest  
13 progress in the early years, over the last decade, ozone  
14 levels have shown significant improvement in response to  
15 accelerated NOx reductions. Current control programs will  
16 continue this current pace, with a further 50 percent  
17 reduction in NOx expected to bring the valley into  
18 attainment by 2031.

19 Additional reductions from implementation of new  
20 measures included in the mobile source strategy will  
21 further accelerate improvement.

22 --o0o--

23 STAFF AIR POLLUTION SPECIALIST VELASCO: Meeting  
24 PM2.5 standards in the next decade in the valley  
25 represents a tougher air quality challenge than meeting

1 the ozone attainment deadline. In the next few slides, I  
2 will explore why and discuss some of the unique aspects of  
3 the Clean Air Act process for PM2.5.

4 Mountain ranges surrounding the valley, along  
5 with weather patterns that cause extended periods of  
6 stagnation, are conducive to the formation and  
7 accumulation of PM2.5, especially during the winter  
8 months. While annual PM2.5 levels in the valley have  
9 decreased since 2000, year-to-year variability in the  
10 persistence and severity of these weather conditions can  
11 have a significant impact on concentrations.

12 The recent drought has further intensified this  
13 challenge. Extended periods without storm systems prevent  
14 the dispersion and removal of PM2.5 that would typically  
15 occur with more frequent rainfall. The stagnant  
16 conditions associated with persistent dry periods also  
17 allow for PM2.5 buildup over multiple weeks. For example,  
18 nearly two months without rain in the winter of 2013  
19 caused an extended period of elevated PM2.5, which in turn  
20 increased annual concentrations.

21 This impact is illustrated in the figure on the  
22 right comparing annual average PM2.5 design values in 2012  
23 and 2013. The severity of weather conditions associated  
24 with the drought increased annual average PM2.5  
25 concentrations between one and two micrograms per cubic

1 meter, making PM2.5 attainment more difficult.

2 --o0o--

3 STAFF AIR POLLUTION SPECIALIST VELASCO: Both the  
4 nature of PM2.5 in the valley and PM2.5 Clean Air Act  
5 requirements provide an additional level of complexity in  
6 the developing valley SIPs. Unlike ozone, the PM2.5 SIP  
7 planning requirements apply in a step-wise fashion. The  
8 process begins with evaluation of the visibility of  
9 meeting the standard by the moderate area deadline of  
10 2021. This is the SIP due this year.

11 If attainment in 2020 -- by 2021 is not feasible,  
12 EPA will reclassify the region to serious and establish  
13 requirements for a second SIP submittal that must  
14 demonstrate attainment by 2025. That submittal date is  
15 not yet known. Nevertheless, it is important to begin to  
16 define the strategies that will be needed for attainment  
17 now.

18 As part of this process, we will need to consider  
19 the potential for future droughts and plan for the  
20 additional reductions that will be necessary. These  
21 control programs will require focus on key contributors to  
22 PM2.5 in the valley, including NOx from mobile sources, as  
23 well as directly emitted PM2.5 from wood burning and  
24 commercial cooking. In addition, although dust is  
25 typically a small contributor to PM2.5, it's contribution

1 has been increasing in the valley.

2 --o0o--

3 STAFF AIR POLLUTION SPECIALIST VELASCO: Air  
4 quality modeling work is currently underway to evaluate  
5 the magnitude of reductions needed for attainment. Given  
6 the earlier attainment dates for PM2.5 compared to ozone,  
7 accelerating the pace of NOx reductions staff outlined in  
8 the draft mobile source strategy last October will be  
9 necessary. Ongoing mobile source NOx reductions will  
10 provide for significant regional improvement, but  
11 strategic use of incentive funding will be essential to  
12 achieve earlier penetration of clean air technologies.

13 Additional local -- additional local district  
14 controls will also be critical especially in the southern  
15 valley where concentrations are the highest. District  
16 controls will need to target further reductions from wood  
17 burning and commercial cooking. In addition, given the  
18 increasing contribution from dust, the district will also  
19 need to evaluate opportunities to strengthen fugitive dust  
20 rules originally adopted for PM10 SIPs.

21 --o0o--

22 STAFF AIR POLLUTION SPECIALIST VELASCO: Finally,  
23 let's look at the southern portion of California. Given  
24 the severity of the challenge, the primary focus is on  
25 meeting ozone and PM2.5 standards in the South Coast. San

1 Diego County has made substantial progress and is nearing  
2 the ozone standard. Emission reductions in the South  
3 Coast will also provide for attainment in the remaining  
4 four downwind areas, including Mojave Desert and Antelope  
5 Valley, Coachella Valley, and Ventura County. The last  
6 area, Imperial County, has a number of air quality issues,  
7 including cross-border transport from Mexicali and the  
8 Salton Sea that I will discuss further.

9 --o0o--

10 STAFF AIR POLLUTION SPECIALIST VELASCO: As we  
11 briefed you last October, the South Coast region  
12 experiences the highest ozone levels in the nation. State  
13 and local control programs have resulted in significant  
14 progress. Twenty-five years ago, the entire South Coast  
15 region violated the 75 part per billion standard. Today,  
16 40 percent of the population lives in communities in the  
17 coastal region of the basin that now meet the standard.

18 However, modeling conducted by ARB and district  
19 staff indicates that NOx emissions will need to be reduced  
20 further -- a further eight percent from today's levels to  
21 bring the remaining portions of the region into attainment  
22 by 2031. While VOC reductions may provide near-term  
23 benefits in some portions of the basin, the standard can  
24 only be met through significant NOx reductions.

25 The proposed mobile source strategy is designed

1 to provide all of the reductions needed from the mobile  
2 sector, and will require comprehensive actions to deploy  
3 the cleanest technologies. Given the severity of the  
4 problem, a similar scale of reductions will be needed from  
5 refineries, power plants, and other local, large  
6 industrial sources. South Coast staff is working on  
7 defining the needed strategies for these sources.

8 --o0o--

9 STAFF AIR POLLUTION SPECIALIST VELASCO: Meeting  
10 ozone standards will drive overall emission reduction  
11 needs in the South Coast as PM2.5 air quality has been  
12 showing steady improvement. Annual average concentrations  
13 have been cut in half since 2001, and the region met the  
14 15 micrograms per cubic meter annual standard in 2013.

15 California's drought has had a smaller impact on  
16 air quality in Southern California than in the San Joaquin  
17 Valley, but has slowed progress more recently.  
18 Nevertheless, meeting the PM2.5 standard in the South  
19 Coast will rely on the mobile source strategy to reduce  
20 regional concentrations, coupled with targeted district  
21 controls focused on bringing the remaining areas in  
22 Riverside into attainment.

23 --o0o--

24 STAFF AIR POLLUTION SPECIALIST VELASCO: Ozone  
25 concentrations in San Diego County have declined over 20

1 percent since 2000, and the coastal region now meets the  
2 ozone standard. Similar to the Sacramento region, the  
3 highest concentrations occur in the county -- in the  
4 county's rural eastern portion due to emissions  
5 transported from upwind urban areas.

6 Today, the only monitor still violating the ozone  
7 standard is in the community of Alpine. With mobile  
8 sources accounting for over 90 percent of the NOx  
9 reductions in the county, ongoing implementation of the  
10 mobile source program will provide for attainment, with an  
11 attainment deadline in 2017.

12 --o0o--

13 STAFF AIR POLLUTION SPECIALIST VELASCO: I will  
14 close on Imperial County in the eastern -- in the  
15 southeastern corner of the State. This region faces  
16 multiple air quality issues affecting ozone, PM2.5 and  
17 PM10. Elevated ozone levels in th3e country are the  
18 result of transport from several upwind areas, including  
19 the South Coast and San Diego, as well as Mexicali,  
20 Mexico.

21 Ongoing mobile source reductions, both within the  
22 county and in South Coast and San Diego will be key to  
23 attainment. PM2.5 levels are also due to pollution  
24 transported from Mexicali, and therefore the nonattainment  
25 area represents only a small region next to the border.

1 Because of the overwhelming impact of emissions in Mexico,  
2 the PM2.5 SIP will utilize the cross-border transport  
3 provisions on the -- in the Clean Air Act. At the same  
4 time, ARB and the district continue to work on outreach  
5 programs with the Mexican government to improve public  
6 health on both sides of the border.

7 Lastly, the region also experiences periodic high  
8 PM10 levels due to wind-blown dust events and is working  
9 to prevent potential impacts from the Salton Sea.

10 --o0o--

11 STAFF AIR POLLUTION SPECIALIST VELASCO: The  
12 Salton Sea straddles Imperial County and the Coachella  
13 Valley. The lake level has been dropping since 1995, and  
14 beginning in 2018, a water transfer agreement will  
15 drawdown lake levels exposing increasing areas of lakebed  
16 playa.

17 To prevent the potential for wind-blown dust  
18 impacts, the Salton Sea Task Force was established in 2015  
19 to develop mitigation and restoration plans. As part of  
20 the task force, ARB is focused on near-term actions to  
21 mitigate air quality impacts. Current efforts include  
22 providing guidance on air quality modeling and technical  
23 expertise on effective dust mitigation methods. The goal  
24 is to get dust control in place as the playa is exposed to  
25 prevent dust emissions from the outset, and the potential

1 for exceeding the federal standard.

2 --o0o--

3 STAFF AIR POLLUTION SPECIALIST VELASCO: This  
4 will be a busy year for SIP development as we continue to  
5 work with local air districts on bringing 15 plans to the  
6 Board. These SIPs will reflect a variety of control  
7 approaches, with ongoing mobile source reductions key to  
8 the air quality progress throughout the state. As part of  
9 this effort, the Board will be finalizing SIP commitments  
10 for new mobile source measures as part of the  
11 comprehensive mobile source strategy.

12 Looking beyond these SIPs, last October, EPA  
13 further strengthened the ozone standard to 70 parts per  
14 billion. In the fall, we will brief you on proposed  
15 nonattainment area designations. SIPs for this revised  
16 standard will be due in 2021. The actions you will be  
17 considering over the coming years to improve the new  
18 mobile source strategy -- sorry, to implement the new  
19 mobile source strategy will also provide the foundation  
20 for meeting this more health protective ozone standard.

21 This concludes my presentation and we would be  
22 happy to answer any questions you may have.

23 CHAIR NICHOLS: Thanks, Dr. Velasco. I don't  
24 believe we have anybody signed up to speak on this item.  
25 And I know Board members have had an opportunity to look

1 at the report and to ask questions about the process in  
2 general. I think perhaps the only thing that may be  
3 missing from the overall presentation is a little bit of a  
4 picture of how the Air Board works with the local agencies  
5 to integrate the vehicle and stationary source aspects of  
6 the SIPs. This is -- it's a complicated and lengthy  
7 process and it builds on all kinds of exchanges of data  
8 and so forth. But maybe you could just talk a little bit  
9 about how this works.

10 Mr. Karperos.

11 DEPUTY EXECUTIVE OFFICER KARPEROS: Yes, let me  
12 answer that question. As we said in the staff  
13 presentation, the mobile source strategy is the foundation  
14 of attainment throughout the State. In Sacramento, in San  
15 Diego where 90 percent of the emissions NOx emissions are  
16 coming from mobile sources is actually the key part of the  
17 strategy. It's also obviously very much the case in South  
18 Coast, in the San Joaquin Valley, the big lift is from NOx  
19 reductions.

20 Because of that, we work very, very closely with  
21 the local air districts, first, to establish the  
22 scientific foundation for SIPs. And that's the inventory  
23 and the air quality modeling. How much -- what are the  
24 emissions going into the region, and how far do we need to  
25 lower those in order to meet the standards. And that is a

1 back and forth between ourselves and the air districts.

2 We do most of the modeling for the San Joaquin  
3 Valley. We have the capacity and the resources to apply  
4 there. It's much more a partnership in South Coast to  
5 have a substantial effort in the modeling arena there.

6 And we try to make sure that we're actually  
7 leveraging our resources and using those most efficiently,  
8 and arriving at the same answer as to what the carrying  
9 capacity is of the regions.

10 Once we've established that, then it's a matter  
11 of identifying what are the most effective approaches for  
12 reducing NOx emissions. Both the local agencies and  
13 ourselves have a great amount of expertise and a growing  
14 amount of expertise with the local air districts in terms  
15 of what are effective strategies for the unique sort of  
16 business models and sources that are in the regions. So  
17 we, as staff, sit down and -- with the local staff and  
18 talk about what our mutual -- our ideas about what  
19 controls should be, taking into consideration the  
20 technical expertise and input from the local districts,  
21 and their insight in terms of the timing of the controls,  
22 and how they can be applied to, as I said a moment ago, to  
23 the particular business models that exist within their  
24 regions.

25 We also -- and this is -- I'll end here. Because

1 the strategy, as we briefed you in October, is very,  
2 aggressive, the support of the air districts in developing  
3 it, and helping us move that forward to a vote in front of  
4 you is absolutely critical. We would not be able to  
5 develop it nor implement it without their support.

6 CHAIR NICHOLS: Thank you.

7 BOARD MEMBER BALMES: Chair Nichols, could I just  
8 make one comment.

9 CHAIR NICHOLS: Please.

10 BOARD MEMBER BALMES: As Kurt knows, but I don't  
11 know about my fellow Board members, there's already a  
12 stricter ozone standard on the books for 70 parts per  
13 billion, as opposed to the 75 that we're -- the SIP will  
14 be about. And so getting started to meet the 75 part per  
15 billion standard is important in terms of our positioning  
16 to meet even a stricter standard down the road.

17 DEPUTY EXECUTIVE OFFICER KARPEROS: You're  
18 absolutely right, Dr. Balmes. As we develop the plans now  
19 for the 75 parts per billion standard, we use our models  
20 to look forward to what might we need to do, how far will  
21 we need to go in terms of reducing emissions next. The  
22 South Coast AQMD actually includes an element of their  
23 plan explicitly looking forward to the next SIP. And we,  
24 in our staff reports, will do the similar thing for other  
25 areas of the state.

1 CHAIR NICHOLS: Any other comments?

2 All right. Well, thank you. We're now better  
3 prepared for what's ahead. Much appreciated. Thank you.  
4 This is -- January is a good time to get ready.

5 And that will move us to our last update item,  
6 which is also not an action item, but again an update for  
7 the Board. This one relates to an issue which has sort of  
8 evolved in recent years as one of increasing focus, which  
9 is the exposures of people who live near roadways to  
10 pollution and what strategies can be used. When we're  
11 talking about SIPs, we're usually talking -- we are  
12 talking about regional standards, measurements that are  
13 done at a regional -- across a region level, and obviously  
14 strategies that are intended to be broadly applicable.

15 Here, we're talking about things that are, in  
16 many cases, very local. And development, design of land  
17 developments can be critical ingredients here. And we  
18 face, I think, still questions about whether the  
19 strategies that make sense to integrate land use and  
20 transportation, and overall reduce fuel use which involve  
21 integrating different types of land uses, more compact  
22 development, things that I think are now accepted as the  
23 goals for most urban planning can also result in increased  
24 exposures for people who live or go to school and spend  
25 any time outdoors in areas near roadways.

1           So trying to optimize both of these strategies  
2 has proven to be somewhat controversial and an interesting  
3 challenge. And staff is going to give us an update on  
4 some of the exposure reduction strategies that have  
5 come -- have been identified through ARB-sponsored  
6 research, as well as other research that they've reviewed  
7 from the literature and talk a little bit about how we're  
8 proceeding to integrate this information into our ongoing  
9 activities.

10           Mr. Corey.

11           EXECUTIVE OFFICER COREY: Yes. Thanks, Chair  
12 Nichols. You all know that research unequivocally shows  
13 that the exposure to traffic emissions is associated with  
14 serious health impacts. And as a result, California has a  
15 long and successful history of reducing air pollution to  
16 protect public health. California now boasts, as  
17 mentioned many times through the course of the day,  
18 180,000 electric vehicles on its roads. And today's new  
19 cars pollute 99 percent less than their predecessors did  
20 30 years ago.

21           Emissions from trucks and buses also declining  
22 and ambient diesel PM concentrations California has  
23 dropped significantly.

24           But many parts of California are experiencing a  
25 trend towards infill and compact development. While this

1 can be good for reducing vehicle traffic and promoting  
2 active modes of transportation, it means that Californians  
3 are increasingly likely to spend time near roadway  
4 environments, where their potential for exposure to  
5 traffic emissions is greatest.

6 In 2005, ARB released the air quality land-use  
7 handbook to provide guidance on how to minimize the health  
8 effects of exposure through land-use decision making.  
9 Since 2005, new research has identified a variety of  
10 effective strategies that local planners can consider to  
11 reduce air pollution exposure when infill developments  
12 exist or are planned near roadways.

13 I'd now like to introduce Maggie Witt from the  
14 Research Division. She'll provide a description of the  
15 strategies and how they were developed.

16 Maggie.

17 (Thereupon an overhead presentation was  
18 presented as follows.)

19 MS. WITT: Thank you, Mr. Corey and good  
20 afternoon, members of the Board. This update will focus  
21 on the many strategies in an upcoming technical advisory  
22 that can be implemented to reduce near roadway pollution  
23 exposure, particularly in communities with existing or  
24 planned compact, infill development.

25 First, I will provide some background on the

1 challenges of near roadway exposure, and statewide efforts  
2 to address it through air quality policies, regulations,  
3 and land-use guidance.

4           Then I will present the results of research and  
5 literature reviews showing that there are many strategies  
6 that can implemented to protect public health when  
7 developments exist or are planned near busy roads.

8                           --o0o--

9           MS. WITT: Compact and infill development exists  
10 in many parts of California and will become more prevalent  
11 in the future as a result of local, regional, and  
12 statewide efforts to reduce auto dependence and to achieve  
13 other important environmental and public health goals.

14           This pattern of development has many benefits.  
15 It promotes physical activity by facilitating active  
16 transportation and by shortening the distances that people  
17 must travel for their daily activities. It cuts  
18 greenhouse gas emissions by reducing vehicle trips.  
19 Importantly, it also can improve people's quality of life  
20 by facilitating community connectivity.

21           There are challenges that sometimes emerge with  
22 compact and infill development. In some cases, this kind  
23 of development may mean that people spend more time in  
24 near roadway environments.

25           Exposure to traffic emissions is strongly

1 associated with public health concerns, including  
2 worsening of asthma and other respiratory health impacts,  
3 particularly in children, and serious cardiovascular  
4 health effects in adults. This is a challenge that ARB is  
5 addressing through important research into practices that  
6 can be implemented to reduce near roadway pollution  
7 exposure.

8 --o0o--

9 MS. WITT: ARB's air quality and land-use  
10 handbook published in 2005 is built on research that  
11 remains true today, that pollutant concentrations decline  
12 significantly as you move farther away from pollution  
13 sources. This finding motivated ARB's recommendation in  
14 the handbook that new sensitive uses, such as residences,  
15 playgrounds, or medical facilities should be sited at  
16 least 500 feet from freeways, urban roads with 100,000  
17 vehicles per day, or rural roads with 50,000 vehicles per  
18 day.

19 Recent studies continue to support this 500-foot  
20 separation as protective of public health. And as such,  
21 it remains an important starting point for reducing  
22 traffic emissions exposure.

23 --o0o--

24 MS. WITT: Changes in the vehicle fleet will  
25 reduce tailpipe emissions and near roadway exposure.

1 Cleaner engines, particulate filters, and zero emission  
2 vehicles are our most important tool in reducing exposure.  
3 However, it will take time for these changes to occur, and  
4 still some traffic emissions will remain, even when the  
5 full benefits of various programs, policies, and  
6 regulations are realized.

7 For example, non-tailpipe emissions, such as  
8 brake- and tire-wear will continue to pose challenges for  
9 near roadway exposure after fleet changes have occurred.

10 --o0o--

11 MS. WITT: The information in the forthcoming  
12 technical advisory augments the land-use handbook and is  
13 based on research conducted since the handbook was  
14 published. The strategies contained in the technical  
15 advisory are especially important in cases where the  
16 500-foot separation between busy roads and developments  
17 does not exist or is not implemented. They can also be  
18 applied more broadly whenever traffic pollution has  
19 prompted community concerns.

20 --o0o--

21 MS. WITT: ARB's Research Division has long been  
22 involved in studying these strategies through many  
23 Board-approved research contracts and comprehensive  
24 literature reviews. Recently, the division set out to  
25 compile effective and scientifically supported strategies

1 into a technical advisory that planners and other  
2 stakeholders can use as a reference.

3 This technical advisory, which is still in  
4 development not only lists these strategies, but also  
5 describes the scientific basis, tradeoffs, appropriate  
6 context, and other considerations. Our hope is that the  
7 intended audience can use this resource to make a  
8 well-informed decision about a strategy that makes sense  
9 for the local context and site-specific conditions.

10 In addition to appearing in ARB's forthcoming  
11 technical advisory document, these strategies are also  
12 included in the Office of Planning and Research's 2016  
13 update to the general plan guidelines. These guidelines  
14 are being updated for the first time since 2003. This  
15 update creates a timely opportunity for ARB to incorporate  
16 its research findings into a document that is used by all  
17 local government planning agencies.

18 --o0o--

19 MS. WITT: Through a comprehensive process of  
20 examining ARB research findings and published scientific  
21 literature, ARB staff arrived at eight recommended  
22 strategies covering these four categories. It is  
23 important to note that all of these strategies are based  
24 on peer-reviewed research findings. In order to be  
25 included in ARB's recommended list, and ultimately in our

1 technical advisory, the research for each strategy had to  
2 demonstrate three things, considerable emission reductions  
3 or air quality improvements, consistency between multiple  
4 studies, and the use of multiple research methods.

5 In the slides that follow, I will explain these  
6 eight strategies.

7 --o0o--

8 MS. WITT: The first category is urban design.  
9 Here, ARB recommends designing street corridors to promote  
10 ventilation, which increases pollutant dispersion and  
11 therefore improves air quality. Examples of our urban  
12 design that fit this recommendation include buildings with  
13 varying shapes and heights, and incorporation of spaces  
14 that encourage airflow, like parks and wide sidewalks and  
15 bike lanes.

16 --o0o--

17 MS. WITT: Second in this category ARB suggests  
18 setting offices, parking lots, and daytime uses closer to  
19 roads for two reasons. First, research shows that  
20 pollutant concentrations decline with distance most  
21 sharply during the day. Therefore, pollution  
22 concentrations are likely to be lower at times when people  
23 will be exposed.

24 Also, daytime uses like offices often have better  
25 ventilation systems to remove particles, and they

1 typically have sealed windows that cannot be opened.

2 --o0o--

3 MS. WITT: Roadside features is the next  
4 category. It includes the use of solid barriers and sound  
5 walls adjacent to freeways to reduce near roadway  
6 exposure. Research shows that these barriers can increase  
7 the vertical dispersion of pollutants. This reduces  
8 pollutant concentrations experienced by people just beyond  
9 the barriers.

10 Additionally, barriers dissipate noise, and  
11 therefore benefit public health by mitigating noise  
12 related health effects.

13 --o0o--

14 MS. WITT: Vegetation, if correctly installed,  
15 can also help improve air quality by altering pollutant  
16 transport and facilitating dispersion. Additionally,  
17 vegetation may promote particle removal, but this is still  
18 under study in California locations and conditions.

19 --o0o--

20 MS. WITT: The next category involves street  
21 design and traffic management, and the final strategy we  
22 call speed -- and the first strategy we call speed  
23 reduction mechanisms.

24 Much of the research examined here relates to the  
25 use of roundabouts, typically in place of stop-controlled

1 intersections, which can be hot-spots for traffic  
2 emissions because of idling and stop-and-go driving. When  
3 a around about is implemented under the right conditions,  
4 which are discussed in detail in the technical advisory,  
5 it can reduce emissions by up to 85 percent.

6 --o0o--

7 MS. WITT: Similar to the previous strategy,  
8 traffic signal management, such as signal coordination,  
9 can also reduce emissions and pollution concentrations by  
10 cutting back on stop-and-go driving and idling. Studies  
11 show that when implemented correctly, signal coordination  
12 can reduce emissions up to 50 percent.

13 --o0o--

14 MS. WITT: The next street design and traffic  
15 management strategy addresses traffic speeds and emission  
16 rates. The literature shows that per mile emissions and  
17 fuel consumption are minimized in an average speed range  
18 of 35 to 55 miles per hour. For this reason, ARB  
19 recommends that on high-speed arterials, speed limits  
20 within this optimal range be considered.

21 Of course, this strategy may not work in all  
22 jurisdictions, but it may be something that a community  
23 can consider where near roadway pollution exposure is  
24 influenced by nearby high traffic speeds.

25 --o0o--

1 MS. WITT: The last category, pollutant removal,  
2 focuses on indoor high-efficiency filtration to remove  
3 particles from the air inside buildings. Research shows  
4 that installing high-efficiency filtration or using  
5 high-efficiency portable filters can be extremely  
6 effective. These systems can remove between 50 and 99  
7 percent of the airborne particles.

8 --o0o--

9 MS. WITT: ARB staff recommends that these  
10 strategies be considered for near roadway developments  
11 wherever the 500-foot separation isn't feasible, either  
12 because the development is existing or because the project  
13 cannot achieve this separation. Additionally, these  
14 strategies may be considered when other factors, besides  
15 proximity, raise community concerns about traffic  
16 emissions.

17 In these instances, we envision that planners or  
18 others involved in land-use planning processes will look  
19 to ARB's technical advisory for options of strategies.  
20 There are several important factors that we suggest  
21 technical advisory users keep in mind when consulting this  
22 document.

23 First, local context and project-specific  
24 considerations are important, and not all strategies are  
25 appropriate for all situations. Local expertise is

1 essential for selecting a strategy that makes sense and  
2 results in the desired exposure reduction outcome.

3           Second, combinations of strategies often optimize  
4 their effectiveness. And finally, we recommend that local  
5 planners and other users consult relevant, local, and  
6 regional partners, like air districts and metropolitan  
7 planning organizations, before implementing a strategy.  
8 Many other agencies have region-specific programs and  
9 helpful expertise.

10                           --o0o--

11           MS. WITT: To emphasize the comprehensiveness of  
12 the input we have received, this table shows the many  
13 expert reviewers and stakeholders that were consulted over  
14 the last several months, as we developed our recommended  
15 strategies and the supporting technical advisory. We  
16 would like to take this opportunity to express our thanks  
17 to the numerous individuals, organizations, and agencies  
18 that provided valuable input.

19                           --o0o--

20           MS. WITT: The Office of Planning and Research's  
21 draft general plan guidelines also provided a valuable  
22 avenue for collecting input on ARB's recommended  
23 strategies. The draft guidelines document was widely  
24 distributed for public comment in the fall of 2015. The  
25 recommended strategies were included in the document's

1 near roadway siting section, and therefore received a  
2 broad audience through this public review process. The  
3 general plan guidelines are expected to be finalized later  
4 this year.

5 --o0o--

6 MS. WITT: Our next steps on this effort begin  
7 with the finalization of our technical advisory, following  
8 our latest stakeholder review. We expect that the  
9 document will be made publicly available in the next few  
10 months. Upon completion, our priority will be to make  
11 sure that the document is widely available as possible,  
12 and to help users understand that this is a resource meant  
13 to complement the existing land-use handbook. We plan to  
14 share the document on ARB's website and email it to  
15 relevant listservs. The OPR general plan guidelines will  
16 list the strategies and provide a link to ARB's website  
17 and the technical advisory documents.

18 As emphasized, we have been closely coordinating  
19 with other agencies, stakeholders, and partners throughout  
20 this process. We will continue to work with them to  
21 ensure that this document is as useful as possible.

22 --o0o--

23 MS. WITT: On the research side, we will continue  
24 to study exposure hot-spots and additional mitigation  
25 opportunities that span a broader set of locations and

1 situations than those considered in our technical  
2 advisory. We also hope to analyze the effectiveness of  
3 combinations of strategies on real-world air quality and  
4 public health improvements.

5 As previously mentioned, combining strategies can  
6 optimize their effectiveness. The technical advisory  
7 highlights an example of this, which was observed during  
8 the 1996 Olympics in Atlanta. As a result of  
9 simultaneously implementing multiple strategies, the  
10 region observed significant reductions in ozone pollution  
11 and childhood asthma events.

12 We will also continue coordinating with key  
13 research partners. For example, the U.S. Environmental  
14 Protection Agency has conducted much research on this  
15 topic, and their findings help to inform the strategies in  
16 our technical advisory. We will continue to align with  
17 them and others on research that complements and furthers  
18 our common health protection goals.

19 Overall, we remain committed to this important  
20 area of research and look forward to making future  
21 strides. Thank you so much for your time, and I would be  
22 happy to answer any questions.

23 CHAIR NICHOLS: Thanks. This is also quite a bit  
24 to absorb, and obviously an overview of a complicated  
25 topic, but it's one that really cries out for more

1 technical information that can be directly used by people  
2 who are planning projects and developments.

3 Supervisor Serna.

4 BOARD MEMBER SERNA: Thank you, Chair Nichols,  
5 and thank you, Maggie, for that very thorough  
6 presentations.

7 As I mentioned during our briefing, I have some  
8 outstanding concern that the assessment of risk to health  
9 based on traffic volumes, number one, and certainly kind  
10 of the topology of the roadway being mostly about  
11 freeways, has me concerned, because it sounds like we're  
12 not taking into account the pollution profile of  
13 start-and-stop traffic that may occur on arterials and  
14 collector streets with traffic volumes below 100,000.

15 And so I was wondering if you can respond to  
16 what, if anything, this agency is doing to promote a  
17 similar assessment of health risks associated with that  
18 particular element of urban design, or Annalisa.

19 (Laughter.)

20 CLIMATE ACTION AND RESEARCH PLANNING SECTION  
21 MANAGER SCHILLA: Thank you for the comment and for  
22 bringing this up. So we are continuing to look at what  
23 appropriate thresholds in terms of vehicle volume are out  
24 there. As you've noted, there are some -- there is some  
25 evidence of health effects at vehicle volumes lower than

1 this threshold.

2 But for this purpose in this document, we have  
3 selected this 50,000 for rural roadway volume and 100,000  
4 vehicle volume for urban roadways as the threshold, since  
5 it's consistent with State law relating to school siting,  
6 and also is consistent more in the handbooks. So were  
7 trying to provide complementary recommendations to that.

8 BOARD MEMBER SERNA: The concern stems from the  
9 fact that as a local decision maker for an agency that  
10 does have land-use authority, thankfully we see more and  
11 more interest in the promotion of infill development and  
12 looking at our urban cores and our corridors to try and  
13 promote alternatives to traditional suburban sprawl. But  
14 if we're not being as honest with ourselves in terms of  
15 the -- all the environmental health risk assessment that  
16 goes on with that topology of urban design and development  
17 as we are with suburban growth and development, I think  
18 we're really missing the mark, because, as you well know,  
19 there is a lot of justifiable rhetoric out there about the  
20 health benefits of living in a more densely populated  
21 urban area where you might have closer proximity to  
22 schools, commercial areas, parks, which is great. That's  
23 fine. That's something that I think we can all agree we  
24 support, but you also may be a lot closer to that  
25 start-and-stop traffic.

1           And as I mentioned during our briefing, I used  
2 the example of 16th Street here right in mid-town  
3 Sacramento, Highway 160, where you do have a lot of recent  
4 development along that particular arterial. And, you  
5 know, I can't tell you what the health risk assessment or  
6 conditions are like for the folks that are living in newly  
7 constructed lofts along that arterial, as much as I can  
8 tell you about development proposals out in the north part  
9 of the county I represent, based on the fact that we  
10 routinely look at the health risk assessment, when we're  
11 talking about development near freeways.

12           And so it's a little frustrating. I think that  
13 it's somewhat disingenuous that we don't kind of hold it  
14 to the same standard that growing interest in urban infill  
15 and understanding the health risks that come with that  
16 again as we do for standard suburban development and  
17 growth.

18           CHAIR NICHOLS: It's an interesting point. It  
19 seems as though what you're asking for is a sort of a  
20 baseline that then other things could be compared to, is  
21 that --

22           BOARD MEMBER SERNA: Well, Chair Nichols, the  
23 concern really stems from the fact that while I certainly  
24 understand the rationale of using traffic volumes to  
25 determine a cutoff of what you're going to analyze, I

1 would argue that in addition to that, looking at  
2 start-and-stop traffic conditions in addition to that is  
3 worth exploring, because of the unique pollution profile  
4 that comes with acceleration from dead stops. All the air  
5 scientists in the room can attest to it much better than I  
6 can that that is certainly something we need to be  
7 concerned about as an air resource agency.

8 But we're not looking at that start-and-stop  
9 condition in areas where there continues to be more and  
10 more promotion of urban design and growth, which is our  
11 urban centers.

12 CHAIR NICHOLS: Yes, I think you've explained  
13 that clearly. I guess what I'm thinking though is that  
14 everybody lives somewhere.

15 (Laughter.)

16 CHAIR NICHOLS: So it seems like it would be good  
17 if we had some sort of a background that was agreed on,  
18 and then new projects could be assessed relative to that.

19 Dr. Balmes, help me out here.

20 BOARD MEMBER BALMES: Well, just to point out,  
21 traffic density is only a surrogate for the pollution  
22 exposure. And so actually knowing what the pollution  
23 exposure is on the kind of arterials that you're talking  
24 about is really the issue in terms of health. And so  
25 there could be more exposure than the traffic density

1 reflects.

2           And remember, traffic density again is just a  
3 surrogate for the exposure. It's used in a lot of  
4 studies, because it's easier measuring everywhere.

5           So this is a thorny issue. You know, you hit the  
6 sort of nail right on the head with regard to urban  
7 infill, which we're trying to encourage for multiple  
8 reasons, but do we -- are we exposing people to greater  
9 amounts of pollution.

10           And, you know, in San Francisco, there's been  
11 efforts with health impact assessments to actually put in  
12 or mandate as part of the health assessment HEPA filters  
13 in vertical infill that are right along major roadways.

14           As somebody who's contributed to the research in  
15 terms of distance of roadway and health effects, you know,  
16 there's one study that I was the first author on, that we  
17 found effects with secondary roads, you know, within 30  
18 meters of a secondary road, which a lot of people do  
19 actually.

20           I wanted to say that I think staff is trying to,  
21 you know, approach a way to handle this thorny issue right  
22 now. One of the things I get most asked about, and I said  
23 this during my briefing, is about this issue. You know,  
24 how close should one -- can one live to a roadway. And,  
25 you know, the 500 feet -- is it 500 feet? I'm mixed up.

1 The 500 foot rule we currently have precludes, you know, a  
2 lot of people from thinking about urban infill in a health  
3 positive way.

4 So I think staff is making an effort to do the  
5 appropriate research to help us. And this new technical  
6 advisory, in the meantime, before we get some of this  
7 research -- these research results back, is better than  
8 what we currently have. But, you know, it's not perfect.  
9 And I think your points are well taken.

10 CHAIR NICHOLS: Ms. Riordan.

11 BOARD MEMBER RIORDAN: Just a comment. We might  
12 want to direct our thoughts to mitigation. And I think  
13 there's opportunity for mitigation when you have to make  
14 that decision between, you know, something further out or  
15 some infill. For instance, traffic management  
16 signalization is, you know, an opportunity. So maybe a  
17 project could contribute to some signalization on the  
18 corridor where they want to develop.

19 And also, just -- even though it's not my  
20 favorite thing, but these roundabouts, if they're  
21 constructed appropriately, can be very helpful. But the  
22 little key is when you do it in an older area and it  
23 wasn't designed for a roundabout in the beginning, then I  
24 think you some other difficulties that -- you know, but I  
25 think it's a great opportunity and we might make these

1 suggestions for infill, because we do want to support  
2 infill. I think that's a good thing for our areas, but we  
3 have to mitigate that somewhere.

4 BOARD MEMBER GIOIA: Madam Chair?

5 CHAIR NICHOLS: I wonder though in terms of  
6 comparative exposures, given what I think is still true  
7 about the relative importance of the start-up, the cold  
8 start, first start of a vehicle versus its ongoing  
9 emissions, whether it even makes a lot of sense to be  
10 focusing so much on the traffic flow versus where the cars  
11 are when they actually get started.

12 Dr. Ayala.

13 DEPUTY EXECUTIVE OFFICER AYALA: Thank you for  
14 the chance. I was waiting for my opportunity to jump in,  
15 because --

16 CHAIR NICHOLS: I knew I was going to tee this  
17 up.

18 DEPUTY EXECUTIVE OFFICER AYALA: Well, I do want  
19 to say something about technology, right? And that is  
20 this is one of many factors that we have to consider. And  
21 as you all pointed out, this is a complex issue, but let's  
22 think about the fact that technology -- car technology  
23 specifically is getting better. So, you know, the high  
24 emitters of yesterday are much higher emitting than the  
25 high emitters of today. That's one thing.

1           The other thing is our certification and  
2 compliance program also plays a role. These starts and  
3 stops that you talk about is something that we care about  
4 and we check for. So it's not completely, you know, a  
5 free-for-all kind of situation.

6           And then, of course, as we move into the future,  
7 advanced technologies like hybrids and EVs are going to  
8 help us, right, because you don't have an engine to worry  
9 about. So these are some of the factors I think that  
10 we're going to have to consider. And, I agree, I think  
11 the urban design in the context of what we do with 375 has  
12 to consider how these factors play a role.

13           But, you know, to the extent that we can do  
14 better when we look at certifying cars, when we look at  
15 testing cars, let's not forget that the State, and  
16 specifically our friends at the Bureau of Automotive  
17 Repair, we work very hard to make sure that we are  
18 retiring the vehicles that could potentially be  
19 disproportionately contributing to these high exposure  
20 events.

21           So it's a combination of factors, I think, that  
22 we need to keep in mind. And understanding the overall  
23 exposure, I think it is in the context of what else can we  
24 do to just essentially get people to not take the car and  
25 take alternative transportation.

1           BOARD MEMBER SERNA: Yeah. Your point is  
2 obviously very well taken about the technology of cleaner  
3 engines or zero emission vehicles becoming a broader part  
4 of the overall market. That will be true for whether  
5 you're talking about 100,000 benchmark for suburban growth  
6 versus urban. So that market is going to be present -- my  
7 point is it will be -- the changes in that market will be  
8 present everywhere.

9           BOARD MEMBER GIOIA: Madam Chair?

10          CHAIR NICHOLS: Supervisor Gioia.

11          BOARD MEMBER GIOIA: I've been waiting to comment  
12 on this, because the Bay Area has done more on this  
13 rule -- on this issue than any other part of the state.  
14 So let me offer some thoughts on some of the challenges  
15 and obstacles we faced, because it's the subject of a  
16 recent California Supreme Court case.

17                 So about five, six years ago, we adopted CEQA  
18 standards to require health analysis of stationary sources  
19 and roadway sources when you locate new residential  
20 development. Under the concept that exactly as we're  
21 saying, we want to figure out what the risks are when new  
22 housing is placed next to sources of pollution that have  
23 higher rates of cancer.

24                 And we got sued by home builders. They didn't  
25 disagree that this should be looked at. They disagreed

1 that we put it in a CEQA guideline. And the California  
2 Supreme Court just ruled a few weeks ago, partial win,  
3 partial loss. It's going to go back to the trial court on  
4 some issues, because the challenge -- I think the League  
5 of Cities sued saying it was a reverse CEQA issue that  
6 you're looking at the effect of the environment on the  
7 project.

8 Our goal here was saying, look, planners at  
9 cities and counties need to consider the health risks when  
10 you locate housing next to sources of pollution. And the  
11 start and stops, our experience is not really a big issue.  
12 The bigger issue is traffic volume and the technology. I  
13 mean, if it was a diesel roadway with lots of trucks,  
14 there were higher cancer risks. If there were less  
15 trucks, there were low -- the cancer rates weren't as  
16 high.

17 For example, some of you may be familiar with  
18 Highway 24 through central Contra Costa County, where  
19 there's Orinda and Lafayette BART stations, we want to see  
20 housing at those BART stations. But they were smack in  
21 the middle of the freeway, so there were some health risks  
22 to place the housing in the middle of Highway 24. But  
23 what we also found is in 10 years from now, the cancer  
24 rate is going to be less because emission standards are  
25 better, diesel truck rule, car standards. So what's

1 actually driving this is the change in the technology,  
2 and, yes the volume.

3           And then ABAG, the Association of Bay Area  
4 Governments, wasn't happy with the air district's rule,  
5 because as some of you have said, they say, gee, we want  
6 to see more development in infill next to rail stations in  
7 old industrial sites. It's better than suburban sprawl.  
8 So this tension that we've had in the Bay Area between two  
9 regional agencies is we want to see more infill  
10 development, but many of the good infill sites are near  
11 highly polluting sources.

12           So this is going to continue to be, I think,  
13 statewide a big issue. We've been dealing with it for six  
14 years, and it's been controversial. And I -- but I -- so  
15 what we're going to -- what we're seeing now is the city  
16 planners and county planners are now adopting, even though  
17 the CEQA guidelines have been put on hold because of the  
18 lawsuit, it's the standard that they have to use when they  
19 look at a development.

20           And it's -- so I think it -- what it does is it  
21 suggests, in addition to how we do our design, is we need  
22 to continue to drive lower emissions, because some of the  
23 sites where we want to build, which are great sites, just  
24 are near polluting sources, and some of them are roadways.

25           So it's sort of -- anyway, that's -- and I assume

1 you've been working with the Bay Area district, because we  
2 have -- we have, in a system itemized -- sort of  
3 inventoried every source of emission in the Bay Area.  
4 We've -- stationary sources, and what's the cancer risk  
5 from those? And then roadway improvement, looking at  
6 traffic volumes, looking at the kind of traffic. And  
7 that's going to get updated over time.

8           And BART wasn't happy that they're saying, gee,  
9 we're going to build less units if we get to build housing  
10 at this BART station. And we're saying, well, maybe in  
11 five years you can do more, because risks are down. But  
12 I -- so this is really at the forefront, and it's not an  
13 easy, issue, right?

14           It's an issue that is -- puts two very good goals  
15 potentially in conflict, infill development and not  
16 putting new residents next to sources of pollution that  
17 impair their health.

18           BOARD MEMBER BALMES: I just have to add one  
19 point.

20           CHAIR NICHOLS: Yes.

21           BOARD MEMBER BALMES: It's not just cancer. I  
22 understood why you used cancer --

23           BOARD MEMBER GIOIA: Yes, that was what we used  
24 as the -- as sort of the proxy.

25           BOARD MEMBER BALMES: Yeah, because kids with

1 asthma and adults with asthma, for example, also --

2 BOARD MEMBER GIOIA: Right, right.

3 BOARD MEMBER BALMES: -- are impacted by being in  
4 those areas.

5 BOARD MEMBER GIOIA: And those filters you  
6 mentioned, that's -- the mitigation that some of you  
7 talked about, that's what you're required to do under  
8 these rules we adopted. So if you -- if you wanted -- if  
9 that high rise next to the Bay Bridge in San Francisco,  
10 they were required to put in -- they have closed windows,  
11 a better filter system, because they're living next to the  
12 bridge and the freeway, and they don't get circulation of  
13 air into the house.

14 Likewise, it's required developers to setback  
15 their -- some of their developments away from the freeway,  
16 so that they don't have as high of a risk, because diesel,  
17 right, doesn't extend out that far. And so -- but it's an  
18 issue admittedly for developers who want to do some more  
19 infill affordable housing.

20 In fact, the folks who really were at the  
21 forefront were the nonprofit housing developers who said,  
22 look, the sites we want to build at are the sites your  
23 identifying have higher health risks.

24 CHAIR NICHOLS: So isn't this -- what started all  
25 of this was a report on research. And it just seems to me

1 that there could be -- that this is a topic. Given how  
2 important it is and given the competing policy objectives,  
3 that there should be a way to design some better research  
4 on this topic, yes?

5 BOARD MEMBER SERNA: I agree.

6 CHAIR NICHOLS: So what are we doing about that?  
7 Dr. Balmes.

8 BOARD MEMBER BALMES: Well, you know, I think one  
9 issue, which I alluded to, and unfortunately it tends to  
10 be expensive, but I think we need better exposure data.  
11 You know, traditionally, for enforcement purposes as  
12 everyone here knows, we sited monitors away from polluting  
13 sources.

14 Now, there are rules that EPA put in place -- I'm  
15 actually partially responsible for those -- with regard to  
16 the NOx standard, and it's been extended to PM2.5 to do  
17 near roadway monitoring. But, you know, we only have a  
18 few sites at this point.

19 You know, just taking from what Supervisor Serna,  
20 you know, mentioned, I think we could do more to  
21 understand exposures in urban areas where there's less  
22 than 100,000 vehicle, you know, in terms of traffic  
23 volume, but there is still a potential for stopping and  
24 starting. And so I -- you know --

25 BOARD MEMBER SERNA: Very close proximity.

1           BOARD MEMBER BALMES: Yeah, very close proximity.  
2 And I'm glad that Chair Nichols gave me the opportunity to  
3 give the, you know, famous line that all researchers say,  
4 yes, we need more research.

5           (Laughter.)

6           CHAIR NICHOLS: Well, but, you know, sometimes  
7 it's really true.

8           Mr. De La Torre.

9           BOARD MEMBER DE LA TORRE: Not related to all of  
10 these, you know, very important decisions for the Board to  
11 make with regard to research and what needs to be looked,  
12 at, it's more of an anecdote. When I was in local  
13 government and an environmental government board, we were  
14 looking at the 710 expansion early on. This was late  
15 1990s.

16           And we had a public hearing, and it was packed.  
17 And I was the one who raised the 500-foot rule, because  
18 they were all complaining about, you know, all -- you're  
19 going to expand the freeway, et cetera, et cetera, and all  
20 of the problems that the freeway is causing us and our  
21 health, et cetera.

22           And so, you know, a modest proposal I said, well,  
23 you know, that harm is greatest within that first 500  
24 feet. So the real answer to the health problem that  
25 you're raising is that we do a buffer of 500-feet, buy out

1 all the houses 500 feet out from the freeway on either  
2 side, and knock them down and create a green belt or  
3 something. The people went nuts.

4 (Laughter.)

5 BOARD MEMBER DE LA TORRE: So notwithstanding the  
6 health issues that they had just expressed, they did not  
7 want to lose their house. So that was, I think, just a  
8 cautionary tale about where all the research leads.

9 CHAIR NICHOLS: Well, because public health isn't  
10 the only thing people care about.

11 (Laughter.)

12 CHAIR NICHOLS: Right?

13 BOARD MEMBER RIORDAN: They want their houses.

14 CHAIR NICHOLS: Okay. Well, this has not led us  
15 to anything ready definitive.

16 (Laughter.)

17 CHAIR NICHOLS: But I would encourage actually  
18 the Research Division staff to be working with our  
19 screening committee and others and with users of this data  
20 to see what kinds of additional information they really  
21 need?

22 Yes.

23 BOARD MEMBER GIOIA: I just wanted to add an  
24 addition caution. One of the things we heard from  
25 residents in communities that had higher cancer rates, as

1 a result of this analysis, was the concern, and it was a  
2 legitimate one, that they were being sort of green-lined.  
3 That they're saying -- they said we want to see more  
4 development in our neighborhood, and by publicizing these  
5 risks, and putting up these barriers, you're potentially  
6 making it harder to put new development into our  
7 neighborhood, which will improve our neighborhood, and  
8 we're stuck here.

9           And so you -- and then the response was, which  
10 was the right response, they said you need to do something  
11 about lowering the health risk. They said, if you're  
12 going to put this out and make it harder for new  
13 development by saying there's a higher health risk, then  
14 you better do something for the people who already live  
15 here and lower the health risks, right?

16           So it's a tough issue. It's a really tough issue,  
17 and it's not as simple as it seems. I mean, having the  
18 good data is important, but it doesn't -- and we need to  
19 look at it for siting new development and how we design  
20 our communities, but we need to be conscious of the people  
21 who already live in some of these communities, who will  
22 feel that they're now being impacted negatively by being  
23 branded with this higher risk of preventing development,  
24 so -- and they always come back to the notion make our  
25 existing community healthier.

1 CHAIR NICHOLS: Supervisor Roberts.

2 BOARD MEMBER ROBERTS: Yeah, thank you. You  
3 know, included within this report were mitigating ideas  
4 that I think really deserve as much study as the problems  
5 itself, the solutions. I don't want to invest heavily in  
6 500-foot green belts or at least the time of that, because  
7 I don't think it's likely to be productive.

8 But if I remember correctly, there was  
9 indications that landscape, and sound walls, and other  
10 things actually mitigate. And I suspect that when we talk  
11 about 500 feet, if we actually start measuring, we'll find  
12 there's a difference -- there might be a significant  
13 difference depending on the side of the freeway you  
14 actually live on.

15 And so, yeah, the -- at the end of the day, this  
16 may be we get to a situation within an Environmental  
17 Impact Report, and we say, okay, there are these impacts,  
18 but there are significant overriding reasons why we want  
19 to do it anyway. And I know that some of these  
20 communities -- disadvantaged communities where we are  
21 trying to rebuild the community, we're going to be in  
22 violation of some of these rules.

23 So I think if there's a warning in here, it's  
24 that there's no absolutes here. And to the extent that we  
25 can identify things that can be done to mitigate the

1 impacts -- and you have some of those. And I was really  
2 encouraged when I saw those, and you keep this in  
3 perspective, I think we're not going to lose site of what  
4 we're trying to achieve, but we do know that the  
5 transportation on those high arterial roads and freeways,  
6 at least per car, the impact is going to go down. The  
7 volumes aren't increasing significantly. The situation  
8 may be getting better. And along with the mitigations  
9 that you talk about, the whole issue may be lessened to  
10 the point where it's not quite the health risk or a  
11 significant health risk in the future.

12 CHAIR NICHOLS: Okay. Well, there we are.

13 (Laughter.)

14 CHAIR NICHOLS: Yes. What can I say? More to  
15 come. That's a good one. Okay. More to come. Thank  
16 you. Thanks for the presentation. It was very helpful  
17 and interesting and provocative. And this is a topic that  
18 will keep coming back.

19 Did we have anybody signed up for public comment  
20 today, general public comment?

21 BOARD CLERK JENSEN: (Shakes head.)

22 CHAIR NICHOLS: We did not. All right. Then I  
23 think we are able to be adjourned.

24 Thanks, everybody.

25 See you next month, if not before.

(Thereupon the Air Resources Board meeting  
adjourned at 2:46 PM)

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## C E R T I F I C A T E O F R E P O R T E R

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

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

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of February, 2016.



JAMES F. PETERS, CSR  
Certified Shorthand Reporter  
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