

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

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JAMES F. PETERS, CSR
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Ms. Emily Wimberger, Chief Economist
Ms. Veronica Eady, Assistant Executive Officer
Ms. La Ronda Bowen, Ombudsman

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

STAFF:

Ms. Shirin Barfjani, Air Pollution Specialist, Zero Emission Truck and Bus Section, Mobile Source Control Division (MSCD)

Mr. Michael Benjamin, Division Chief, Air Quality Planning and Science Division (AQPSD)

Mr. Tony Brasil, Branch Chief, Transportation and Clean Technology Branch, MSCD

Mr. Pippin Brehler, Senior Attorney, Legal Office

Mr. Mike Carter, Assistant Division Chief, MSCD

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Mr. Dave Edwards, Assistant Division Chief, AQPSD

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Mr. Adam Gomez, Air Pollution Specialist, Statewide Truck and Bus Enforcement Section, ED

Ms. Jennifer Gray, Air Pollution Specialist, Compliance Assistance and Outreach Section, Mobile Source Control Division (MSCD)

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Mr. Jack Kitowski, Division Chief, MSCD

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Ms. Sha-Juana Proctor, Air Pollution Specialist, Criteria Pollutant and Air Toxics Reporting Section, AQPSD

Ms. Heather Quiros, Branch Chief, Diesel Program Enforcement Branch, ED

Ms. Annmarie Rodgers, Branch Chief, Compliance Assistance and Outreach Branch, MSCD

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

STAFF:

Mr. Todd Sax, Division Chief, ED

Mr. John Swanson, Manager, Criteria Pollutant and Toxics Reporting Section, AQPSD

Mr. Daniel Whitney, Senior Attorney, Legal Office

ALSO PRESENT:

Mr. Alan Abbs, California Air Pollution Control Officers Association

Mr. Eddie Ahn, Brightline

Mr. Sam Appel, Bluegreen Alliance

Mr. Thomas Ashley, Greenlots

Dr. Alberto Ayala, Sacramento Metropolitan Air Quality Management District

Mr. Nate Baguio, Lion Electric

Mr. Will Barrett, American Lung Association of California

Ms. Abhilasha Bhola, Jobs to Move America

Mr. Nico Bouwkamp, California Fuel Cell Partnership

Mr. Bill Boyce, Sacramento Municipal Utility District

Mr. Jack Broadbent, Bay Area Air Quality Management District

Mr. Bob Brown, Western States Petroleum Association

Mr. Todd Campbell, Clean Energy

Mr. Jon Costantino, Trillium

Ms. Noelle Cremers, California Farm Bureau Federation

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

ALSO PRESENT:

Mr. Jorge DeGuzman, Sacramento Metropolitan Air Quality Management District

Mr. Jake Donahue, Tahoe Transportation District

Ms. Alejandra Duran, BYD

Ms. Emily Fieberling, Environment California

Dr. Philip Fine, South Coast Air Quality Management District

Ms. Ericka Flores, Center for Community Action and Environmental Justice

Mr. Kenneth Folan, Metropolitan Transportation Commission

Ms. Genevieve Gale, Central Valley Air Quality Coalition

Ms. Hannah Goldsmith, California Electric Transportation Coalition

Ms. Christine Heckerroth, Soletrac, LLC

Mr. Steve Heckerroth, Soletrac, LLC

Ms. Emily Heffling, Union of Concerned Scientists

Mr. Norm Hickling, Antelope Valley Transit Authority

Mr. Paul Jablonski, San Diego Metropolitan Transit System

Mr. Dan Jacobson

Mr. Vazken Kassakhian, Southern California Edison

Ms. Anne Katten, California Rural Legal Assistance Foundation, Californians for Pesticide Reform

Mr. Bhavin Khatri, San Francisco Municipal Transportation Agency

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

ALSO PRESENT:

Mr. Bernie Kotlier, National Electrical Contractors Association, International Brotherhood of Electrical Workers

Dr. Amy Kyle

Mr. Kent Leacock, Proterra

Mr. Jamie Levin, Center for Transportation and the Environment

Mr. Sal Llamas, AC Transit

Mr. Randal MacDonald, Sierra Club

Mr. Bill Magavern, Coalition for Clean Air

Ms. Wendy Mitchell, L.A. County Metropolitan Transit Authority

Mr. Greg Nudd, Bay Area Air Quality Management District

Ms. Kathryn Phillips, Sierra Club

Mr. Michael Pimentel, Santa Cruz Metro

Mr. Ray Pingle, Sierra Club

Mr. William Quinn, California Council for Environmental and Economic Balance

Ms. Corinne Ralph, Los Angeles Department of Transportation

Mr. Sasan Saadat, Earthjustice

Mr. Tim Sasseen, Ballard

Mr. Ryan Schuchard, CalStart

Mr. Nick Segura, International Brotherhood of Electrical Workers

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

ALSO PRESENT:

Mr. Joshua Shaw, California Transit Association

Ms. Emma Shumway, Environment California

Ms. Paula Torrado, Physicians for Social Responsibility,
LA

Ms. Stephanie Tsai, California Environmental Justice
Alliance

Ms. Iris Verduzco, Urban and Environmental Policy
Institute

Ms. Andrea Vidaurre, Center for Community Action and
Environmental Justice

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

2 CHAIR NICHOLS: Good morning. Good morning,
3 ladies and gentlemen. If you could get ready, we are
4 assembling here on the dais.

5 I want to welcome everybody to the December 14th,
6 2018 public meeting of the California Air Resources Board.
7 We will begin the meeting before you all get too
8 comfortable with the Pledge of Allegiance.

9 So please rise.

10 (Thereupon the Pledge of Allegiance was
11 recited in unison.)

12 CHAIR NICHOLS: The clerk will please call the
13 roll.

14 BOARD CLERK DAVIS: Dr. Balmes?

15 BOARD MEMBER BALMES: Here.

16 BOARD CLERK DAVIS: Mr. De La Torre?

17 Mr. Eisenhut?

18 BOARD MEMBER EISENHUT: Here.

19 BOARD CLERK DAVIS: Senator Florez?

20 BOARD MEMBER FLOREZ: Here.

21 BOARD CLERK DAVIS: Assembly Member Garcia?

22 Supervisor Gioia?

23 Senator Lara?

24 Ms. Mitchell?

25 BOARD MEMBER MITCHELL: Here.

1 BOARD CLERK DAVIS: Mrs. Riordan?

2 BOARD MEMBER RIORDAN: Here.

3 BOARD CLERK DAVIS: Supervisor Roberts?
4 Supervisor Serna?

5 BOARD MEMBER SERNA: Here.

6 BOARD CLERK DAVIS: Dr. Sherriffs?

7 BOARD MEMBER SHERRIFFS: Here.

8 BOARD CLERK DAVIS: Professor Sperling?

9 BOARD MEMBER SPERLING: Here.

10 BOARD CLERK DAVIS: Ms. Takvorian?

11 BOARD MEMBER TAKVORIAN: Here.

12 BOARD CLERK DAVIS: Vice Chair Berg.

13 VICE CHAIR BERG: Here.

14 BOARD CLERK DAVIS: Chair Nichols?

15 CHAIR NICHOLS: Here.

16 BOARD CLERK DAVIS: Madam Chair, we have a
17 quorum.

18 CHAIR NICHOLS: Thank you.

19 A couple of announcements before we begin this
20 morning. First of all, interpretation services will be
21 provided today in Spanish for Item number 18-10-8, the
22 Proposed Innovative Clean Transit Regulation. This is a
23 replacement of the fleet rule for transit agencies; and
24 18-10-3, Regulation for the Reporting of Criteria Air
25 Pollutants and Toxic Air Contaminants. Headsets are

1 available outside the hearing room at the attendant
2 sign-up table, and can be picked up at any time.

3 And I will now ask the interpreter to repeat my
4 remarks in Spanish.

5 (Thereupon the interpreter translated
6 in Spanish.)

7 CHAIR NICHOLS: Thank you.

8 For safety reasons, please note the emergency
9 exits to the rear of the room. In the event of a fire a
10 alarm, we're required to evacuate this room immediately,
11 and go down the stairs, and out the building. When the
12 all-clear signal is given, we will return to the hearing
13 room and resume the hearing. Anyone who wishes to testify
14 should fill out a request to speak form. These little
15 cards are available in the lobby outside the Board room.
16 Please turn it into a Board assistant or Clerk prior to
17 the commencement of the item you want to speak on. Also,
18 speakers should be aware that the Board will impose a time
19 limit. We usually give three minutes, but if we have many
20 speakers on the same topic, and basically many saying
21 similar things, we will reduce it to two minutes. So we
22 hope you will simply summarize your views and not read
23 your testimony, because that way we can follow you more
24 easily.

25 And the only other announcement I want to make

1 before we start is that because it is Friday, and the
2 second day of a two-day Board meeting, we're going to roll
3 through the lunch hour without taking a break, so people
4 can make flights that they've scheduled to go to different
5 places. And so if Board members get up from time to time
6 and go to the back room for a few minutes, it's because
7 they're grabbing a bite of lunch. But the good news is
8 that the sound system back there is actually better than
9 the sound system out here --

10 (Laughter.)

11 CHAIR NICHOLS: -- I discovered yesterday, and so
12 they will be able to follow the proceedings inside the
13 auditorium even if you can't see them out here.

14 So with that, our first item this morning is the
15 proposed amendments to the Innovative Clean Transit
16 regulation, a replacement of the Fleet Rule for Transit
17 Agencies. Last week, our joint meeting -- at our joint
18 meeting with the California Transportation Commission, we
19 heard about declining transit ridership. We also heard
20 strong support by many of the Board members on the
21 importance of this mode for providing mobility to all
22 Californians by improving access to an efficient system,
23 especially for low-income communities.

24 SB 1 provided historic increases in transit
25 funding. And so there are some opportunities, but also a

1 lot to do here. We support transit and we need to work
2 collaboratively to counter the declines in ridership as
3 part of meeting our sustainability goals. That work is
4 ongoing and overlaps with the regulation we are
5 considering now. Of course, this regulation will not
6 exacerbate the decline in transit ridership, given the
7 flexibilities built into the regulation. Rather, in the
8 proposed Innovative Clean Transit regulation, we're making
9 sure that the buses on the road are the cleanest available
10 and setting the stage for other clean, efficient, and
11 innovative transportation solutions going forward.

12 Back in September, we heard the initial proposal.
13 The regulation, as proposed, is structured to be
14 consistent with normal bus purchases with the goal of
15 making a successful and orderly transition to a
16 zero-emission bus fleet by 2040. So in other words, it
17 phases in over a number of years, but it starts with the
18 message and the reality that there is money for new buses.
19 And when old buses are replaced, they should be replaced
20 with the cleanest possible vehicles. It's part of
21 California's historic plan to address climate change and
22 to reduce community and regional air pollution.

23 As you may recall, there were a number of
24 comments made by the public and Board members. Staff
25 modified the original proposal to address the concerns

1 while helping us to move forward with the cleanest and
2 most efficient transit systems possible. And they
3 obviously are back, and we will be hearing again to make
4 sure that they did what we asked them to do.

5 As a result of these efforts, we have a proposed
6 resolution today that the Board will be asked to vote on.

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

8 EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

9 And as you noted, staff is proposing that the
10 Board amend the Fleet Rule for Transit Agencies and adopt
11 the Innovative Clean Transit regulation. The proposed
12 regulation is identified in the State strategy for the
13 State Implementation Plan, as well as the 2017 scoping
14 plan as a necessary component for California to achieve
15 established near- and long-term air quality and climate
16 mitigation targets, while resulting in benefits in
17 disadvantaged communities and to transit-dependent riders.

18 In a report you heard last month, heavy-duty
19 vehicles continue to be the largest sector contributing to
20 NOx emissions, as well as a significant GHG source. More
21 effective actions and maximizing electrification where
22 feasible are needed. Zero-emission buses serve as a
23 foundation for electrification of the heavy-duty vehicle
24 sector. And during the initial September public hearing,
25 many Board members, as you noted, transit agencies, and

1 members of the public supported the overall goal of the
2 program, but concerns were raised about potential
3 unintended consequences.

4 The proposal before you today has been updated
5 and includes expanded safeguards to ensure transit service
6 is not adversely affected, but rather encouraged. We're
7 also committed to providing periodic updates to the Board
8 and to conducting a comprehensive review of transit fleet
9 experiences and the future that includes assessments of
10 cost, performance, and reliability before any
11 zero-emission bus purchase requirement is scheduled to
12 begin.

13 The enhancements to the proposal before you help
14 to ensure transit agencies will continue to provide
15 critical services to Californians, including
16 transit-dependent riders, while leading technology
17 innovation and improving mobility and air quality.

18 Having a strong partnership with transit agencies
19 will continue to be a priority to ensure a successful
20 deployment of zero-emission buses, while continuing to
21 improve transit services.

22 I'll now ask Shirin Barfjani of the Mobile Source
23 Control Division to give the staff presentation.

24 Shirin.

25 (Thereupon an overhead presentation was

1 presented as follows.)

2 AIR POLLUTION SPECIALIST BARFJANI: Thank you,
3 Mr. Corey. Good morning, Chair Nichols and Board members.
4 This is the second of two hearings on this item.

5 In the first hearing back in September, staff
6 presented the original proposal and recommended
7 modifications based on the stakeholders' comments.
8 Additional changes that reflected the Board direction were
9 made available for a 15-day comment period, and are
10 reflected in the proposal we are bringing to you today.

11 --o0o--

12 AIR POLLUTION SPECIALIST BARFJANI: In today's
13 presentation, I will first highlight the leadership of
14 transit agencies, then provide a short summary of proposed
15 modifications, information on available incentives, and
16 potential benefits of the proposed regulation will follow
17 later. This presentation will conclude with the staff
18 recommendations to the Board.

19 --o0o--

20 AIR POLLUTION SPECIALIST BARFJANI: A robust and
21 sustainable public transit system, along with affordable
22 transit-oriented housing is key to accomplishing
23 California's transportation and air quality goals.

24 Transit agencies are the State's long-term
25 partners in leading the way with innovative heavy-duty

1 vehicle technologies. They provide safe and reliable
2 public transit services to reduce light-duty passenger
3 vehicle miles traveled and congestion on roadways. They
4 have played and will continue to play an important role in
5 helping California meet air quality standards and climate
6 protection goals by deploying the cleanest technologies
7 and adopting innovative mobility options to increase
8 ridership. Their leadership continues today with multiple
9 transit agencies operating zero-emission buses in their
10 regular revenue service.

11 This is important since zero-emission
12 technologies and the experience developed for transit
13 buses can be transferred to other heavy-duty applications.

14 --o0o--

15 AIR POLLUTION SPECIALIST BARFJANI: As you know,
16 a successful zero-emission bus deployment program faces
17 many challenges. However, as highlighted on this slide,
18 transit agencies, bus manufacturers, utilities, related
19 industries, and other government agencies are all working
20 hand-in-hand to support transit agencies in overcoming
21 barriers.

22 Along with increasing momentum, continued
23 technology improvement, and cost reductions are also
24 needed to meet our long-term goals.

25 --o0o--

1 AIR POLLUTION SPECIALIST BARFJANI: In working
2 closely with transit agencies, we established overarching
3 principles that are reflected in the ICT proposal. We
4 have a shared goal with the California Transit Association
5 and environmental groups on achieving a zero-emission
6 transit system in California by 2040. We believe this
7 proposal maximizes emissions reduction benefits while
8 providing flexibility and sufficient time for transit
9 agencies to address potential challenges and take
10 advantage of available funds.

11 The proposal strives to not just maintain, but
12 enhance service through increased mobility options. And
13 the proposal has built-in technological and financial
14 safeguards.

15 Finally, staff is committed to report back to the
16 Board annually and to conduct a comprehensive review,
17 which I will discuss in later slides.

18 --o0o--

19 AIR POLLUTION SPECIALIST BARFJANI: This slide
20 recaps major elements of the ICT proposal. You have heard
21 the details of these elements in the September hearing.
22 However -- therefore, I'm providing only high-level
23 overview today.

24 As you may recall, each transit agency would be
25 required to submit an individualized rollout plan on how

1 they would deploy a zero-emission bus fleet that would
2 meet the 2040 goal. These plans are not binding, but they
3 help shape future funding decisions and utility planning.

4 The zero-emission bus purchase requirements are
5 phased in starting in 2020 -- starting in 2023, but may be
6 discharged until 2025 with early actions. Some types of
7 buses such as cutaways and motor coaches have a later
8 phase-in date of 2026, because their technology is not as
9 advanced as the common 40-foot bus. And all small fleets
10 would be exempt until 2026. The regulation also includes
11 a number of credit options and compliance pathways.

12 Finally, the regulation includes requirements for
13 low NOx engines and renewable fuels, if available, when
14 purchasing combustion buses.

15 With that as background, I will now describe key
16 changes made during the 15-day comment period in the next
17 few slides.

18 --o0o--

19 AIR POLLUTION SPECIALIST BARFJANI: We briefed
20 you back in September on the proposed updates to the fleet
21 size definition and threshold for early compliance. And I
22 will recap those in more details on the next slide.

23 In response to Board comments, we also expanded
24 exemptions to guard against potential adverse service
25 impacts. These will also be discussed in more detail in a

1 later slide.

2 In addition, we made small changes to expand
3 zero-emission bus bonus credits to include electric
4 trolley buses. This inclusion would recognize their
5 contribution in advancing zero-emission technology by
6 allocating one-third of a credit for each trolley bus
7 placed in service in 2018 and 2019. These credits would
8 expire by December 31st, 2024.

9 --o0o--

10 AIR POLLUTION SPECIALIST BARFJANI: Back in
11 September, staff proposed to make modifications in a
12 15-day notice to include, among others, the following two
13 changes:

14 The first change, as proposed by the California
15 Transit Association, is to update the fleet size
16 definition to be more consistent with one that is commonly
17 used by transit agencies.

18 The second change is to update the thresholds for
19 early compliance in 2023 and 2024. Specifically, relaxing
20 the first threshold to 850 and increasing the second
21 threshold to 1,250. These thresholds were updated based
22 on survey results from transit agencies.

23 Staff believes these targets are likely to be met
24 and would result in early emission reductions benefits.
25 Further, they would provide flexibility for transit

1 agencies and would increase access to available
2 incentives.

3 --o0o--

4 AIR POLLUTION SPECIALIST BARFJANI: To ensure the
5 proposed regulation does not have -- does not have
6 potential adverse impact on transit service, staff has
7 expanded exemptions on zero-emission bus purchases. These
8 exemptions are designed to address the circumstances that
9 are beyond transit agencies' control and will be granted
10 upon request if supported by required documentation.

11 These safeguards address a wide variety of
12 potential operational, technological, and financial
13 concerns. They provide availability of a battery electric
14 bus to meet the transit agency's daily mileage needs or
15 gradeability. They also include specific concerns with
16 funding the upfront cost or higher electricity cost, and
17 they include delays related to infrastructure
18 construction.

19 Overall, they allow the strong push towards
20 zero-emission buses in a way that ensures no un -- no
21 unintentional consequences on transit agencies.

22 --o0o--

23 AIR POLLUTION SPECIALIST BARFJANI: Even though
24 zero-emission bus technologies have advanced rapidly in
25 recent years, continued improvement are still needed for a

1 complete transition. As described in the resolution,
2 staff is committed to provide the Board with a
3 comprehensive review of program readiness at least one
4 year prior to initiation of any zero-emission bus purchase
5 requirements.

6 With the first two years of the purchase
7 requirements like to -- likely to be discharged, the
8 comprehensive review is most likely to occur in 2023 based
9 on what we know of zero-emission bus planned, deployed,
10 and delivered.

11 A successful tran -- a successful transition
12 requires continued collaboration and coordination among
13 CARB, transit agencies, bus manufacturers, and technology
14 providers, utilities, and other State agencies. We plan
15 to evaluate over 20 different metrics and different bus
16 types to address at least the following areas:

17 First, battery and fuel cell performance.
18 Batteries and fuel cells will degrade over time. This
19 review will help identify how degradation may affect daily
20 operate -- operating range as vehicles age.

21 Second, performance and reliability.
22 Measurements could include bus availability, parts
23 availability, road call frequency, and other performance
24 metrics such as fuel efficiency.

25 Third, operating range. Understanding real world

1 operating range is essential for a transit agency to plan
2 for its routes. Range assessment will take into
3 consideration various factors, such as energy storage
4 capacity, HVAC, passenger loading, and grades.

5 Fourth, costs. Costs include infrastructure and
6 vehicle capital, as well as operating and maintenance
7 costs for both battery and fuel cell electric buses.

8 And finally, workforce programs and job creation.
9 An analysis of the impact of the regulation on job
10 creation and the effectiveness of the State's programs and
11 standards to provide high-quality green job training
12 opportunities.

13 --o0o--

14 AIR POLLUTION SPECIALIST BARFJANI: A thorough
15 economic analysis was developed to help form the proposal
16 in front of you today. This economic analysis includes
17 potential economic impact, and where the assumptions came
18 from. Staff also understands there are indirect costs
19 associated with the proposed regulation, such as
20 workforce -- such as workforce training and development,
21 and considered them in economic analysis of staff report.

22 The analysis shows there could be an overall cost
23 savings from the regulation due to operational and
24 maintenance savings of electric buses that offsets the
25 higher upfront costs. Although, each fleet is different,

1 the analysis shows that transit buses could have a
2 positive payback over their life even without incentives.
3 However, funding is still important, especially in early
4 years to help reduce or eliminate the higher upfront
5 costs.

6 When funding opportunities are considered, these
7 upfront costs can be reduced or eliminated and total
8 savings for transit agencies would be substantial.

9 --o0o--

10 AIR POLLUTION SPECIALIST BARFJANI: As shown in
11 this slide, there is broad financial support for
12 zero-emission buses from multiple State programs. Not
13 counting federal or local program funding, State programs
14 currently have available more than \$1.6 billion in
15 competitive funding for zero emission -- for zero emission
16 and clean technology, for which transit projects may
17 apply.

18 These funds are not limited to vehicle purchases.
19 To highlight -- to highlight a couple of these programs,
20 the California Public Utility Commission program funds
21 infrastructure and the low carbon fuel standard, also
22 known as LCFS provide ongoing revenue that can be used for
23 workforce development, operations, maintenance, and other
24 needs.

25 --o0o--

1 AIR POLLUTION SPECIALIST BARFJANI: Shown here
2 and in the following slide is the potential emission
3 reductions from the proposed ICT regulation. It improves
4 public health by providing -- by reducing air pollution,
5 and mitigating climate change. The majority of these
6 benefits will be in the state's most populated and
7 impacted areas.

8 For tailpipe emissions, between 2020 and 2050,
9 cumulatively, we can expect a total of over 7,000 tons of
10 NOx and nearly 40 tons of PM2.5 emissions reduction.

11 --o0o--

12 AIR POLLUTION SPECIALIST BARFJANI: In addition,
13 the proposed regulation is expected to reduce GHG
14 emissions by 19 million metric tons of CO2 equivalent from
15 2020 to 2050 cumulatively. While the transit bus
16 population is relatively small, these emissions -- these
17 emissions reductions are important, because they're
18 occurring in the heart of the communities.

19 In addition, the regulation will help advance
20 zero-emission technology development in other heavy-duty
21 sectors to further the emission reductions goal identified
22 in the State SIP strategy and achieve carbon neutrality.

23 --o0o--

24 AIR POLLUTION SPECIALIST BARFJANI: Staff
25 previously prepared a draft environmental analysis for the

1 proposed ICT regulation, and released it in August for a
2 45-day comment period. The draft EA concluded that
3 implementation of the proposed regulation could bring
4 beneficial impacts to energy demand and greenhouse gases.
5 It also concluded there could be some potential
6 significantly adverse impacts primarily related to
7 short-term construction activities.

8 While staff previously circulated proposed 15-day
9 regulatory modifications for public review that they
10 are -- that they are before you today, those modifications
11 do not change implementation of the regulation in any way
12 that is anticipated to affect the conclusions of the
13 environmental analysis.

14 Staff prepared written responses to all comments
15 raising environmental issues on the draft -- on the draft
16 EA. These -- these comments were received during the
17 45-day comment period, the previous Board meeting, and the
18 15-day comment period. The written responses were posted
19 on ARB's website on December 4th. And the final EA was
20 posted as a companion document on December 7th.

21 --o0o--

22 AIR POLLUTION SPECIALIST BARFJANI: The proposed
23 ICT regulation would provide a significant number of
24 benefits as listed here. After thorough analysis of costs
25 and benefits of the proposed regulation, we found the

1 following:

2 First, the ICT regulation is a necessary program
3 for meeting the State's goals and requirements to reduce
4 emissions.

5 Second, no alternative would be more effective
6 and less burdensome in carrying out the purpose for which
7 the regulation is proposed.

8 And third, the proposed amendments are consistent
9 with the Board's environmental justice practices, and do
10 not disproportionately impact people of any race, culture,
11 or income.

12 Among the benefits, transit workforce training
13 and green job creation will provide foundations for this
14 technology transition. CARB is committed to work with
15 transit community and other sister agencies, such as
16 California Workforce Development Board and Employment
17 Development Department to invest in workforce training and
18 development in the operation and maintenance of
19 zero-emission heavy-duty vehicle technologies.

20 Staff effort in this area will seek to leverage
21 existing and scalable curriculum, such as Sunline Transit
22 Agency's Center of Excellence, that have been utilized by
23 early adopters of zero-emission buses.

24 --o0o--

25 AIR POLLUTION SPECIALIST BARFJANI: Staff

1 recommends that the Board approve the resolution, which
2 would include approval of the written com -- written
3 responses to comments, certification of the final EA, and
4 adoption of the proposed amendments.

5 The ICT resolution includes the commitments to
6 provide an annual update to the Board and conduct a
7 comprehensive review as described in earlier slides.

8 --o0o--

9 AIR POLLUTION SPECIALIST BARFJANI: Moving
10 forward, we will keep monitoring the status of
11 zero-emission buses and market developments. We will also
12 continue working with transit agencies, manufacturers,
13 other State agencies to implement the ICT regulation
14 smoothly. We will annually report back to the Board, and
15 we will conduct a comprehensive review before the initial
16 zero-emission bus purchase requirements start.

17 This concludes my presentation. Thank you for
18 your attention.

19 CHAIR NICHOLS: Thank you. We have an initial
20 list of 32 people who have signed up to testify on this
21 item. If you think you're going to testify, please turn
22 your card in now, so we can get a better sense of how much
23 time we will need to allocate here.

24 I'm going to start off this morning with Norm
25 Hickling from the Antelope Valley Transit Authority. And

1 for others, if -- you probably know the drill, but if you
2 can be ready to speak at either one of these microphones
3 when your turn comes up, it will save us all time. Thank
4 you.

5 MR. HICKLING: Thank you, Chair. Thank you
6 members of the Board. And on behalf of the Antelope
7 Valley Transit Authority, it's a pleasure to be here. And
8 thank the Board and the staff for all the work that
9 they've done over the years to bring this forum together
10 and bring this regulation. And Antelope Valley Transit
11 Authority fully supports this measure that's before you
12 today.

13 We find it is bold, but it's reasoned. It's been
14 made reasonable over the course of the process, and we
15 fully support it. As a transit agency, some years ago
16 we've already made the commitment. And by next year at
17 this time, we will be 100 percent zero emissions all
18 battery electric bus fleet. So we're very proud of that.
19 We think that we -- what we've found though is that the
20 regulation that you have it's very doable. To make that
21 commitment, you can -- you can change over and be zero
22 emission as a transit agency.

23 We've had many challenges. But working with our
24 public and private partnerships throughout different
25 agencies like Southern California Edison and other private

1 agencies, we've been able to overcome those challenges.

2 So again, on behalf of Antelope Valley Transit
3 Authority, and just to keep the remarks somewhat short, we
4 fully support this.

5 Thank you all.

6 CHAIR NICHOLS: Thank you so much. Your agency
7 does have a reputation, at least in Southern California,
8 for innovation and leadership. So thank you. You were up
9 first.

10 Good morning.

11 MR. KASSAKHIAN: Good morning.

12 Thank you, Chair, Board and staff. My name is
13 Vazken Kassakhian with Southern California Edison. We
14 strongly support the Innovative Clean Transit Rule. We
15 think it's an important driver of improving air quality
16 and cutting greenhouse gases.

17 And I will keep my comments short, but just want
18 to talk about how we, as a utility, stand ready to help in
19 this transition. As you know, many transit agencies who
20 are early leaders, like Antelope Valley, are -- who are
21 transitioning to zero-emission bus fleets are in our
22 service territory, and we stand ready to help.

23 And we're principally helping transit agencies in
24 three ways: Through our charging infrastructure programs
25 to help offset the cost of necessary infrastructure and

1 providing rebates for charging stations; favorable
2 time-of-use rates for electric vehicles that waive demand
3 charges to help reduce the cost of charging; and then also
4 support from our customer-facing teams who offer
5 assessments and consultative support from vehicle choices
6 to charging options and analysis on rates and avail --
7 information about available incentives.

8 So just want to say that we stand ready to help.
9 Funding is here today. There are programs here today.
10 And we strongly support the rule and think it's an
11 important driver, again, of air quality and greenhouse gas
12 emissions. And we want to do our part to work with you
13 and our customers throughout implementation to ensure that
14 we have, as you said, a successful and orderly transition
15 to zero-emission fleets.

16 Thank you.

17 CHAIR NICHOLS: Thank you.

18 MR. RALPH: Good morning, Board and staff. My
19 name is Corinne Ralph. And I'm the Chief of Transit at
20 the Los Angeles Department of Transportation. And I'm
21 here this morning again to offer support to the -- this
22 regulation -- this Innovative Clean Transit regulation.
23 We think it's a very important step forward.

24 Just to give a little brief background about L.A.
25 DOT. We are the second largest provider of transit

1 services in L.A. County. We have over 370 buses. And our
2 city council has committed us to being a fully electric
3 fleet by 2030. We have four buses in operation right now,
4 electric buses, since 2017. And we are getting ready to
5 buy another 155 buses as part of a TIRCP grant.

6 So we know there are challenges, but we know it
7 can be done. And we stand committed to making sure that
8 we have clean buses in the street that will provide clean
9 air for the environment as well as for riders. So again,
10 we want to -- appreciate this opportunity to be able to
11 say and to support the efforts of the Board and the staff.

12 Thank you.

13 CHAIR NICHOLS: Thank you.

14 MR. CAMPBELL: Good morning, Madam Chair and
15 members of the Board. Happy Holidays.

16 As you -- as you would expect or could
17 appreciate, the rule before you is troubling to us, not
18 just because we earnestly believe that near-zero buses
19 powered by renewables is a cost effective and comparable
20 solution that is available and ready today, but also
21 because the substantial public investments that have been
22 made to ready transit systems on renewable gas operations.

23 Transits will now be asked to make significant
24 investments again, but on a significantly great scale
25 requiring an enormous dedication of resources by State,

1 local, and State utilities, which we believe is still not
2 fully understood.

3 Anticipating the unimaginable challenges to this
4 rule with -- and what it will present to transit agencies
5 statewide, Clean Energy stands ready to support our
6 transit customers in whatever capacity we can as we
7 ultimately are a clean energy provider to transit systems.

8 Further, it is not lost upon us as to why the Air
9 Board is pushing transit agencies to go zero. Transit has
10 traditionally been used as a test bed for new
11 technologies, and we get that. But we also hope that you
12 will direct staff to backstop this rule with the cleanest
13 available technologies near-zero buses at 0.02 grams NOx,
14 if zero emission bus technology falls short.

15 We are encouraged that Board members are
16 receptive to the continuous evaluation of the proposed
17 rule before you -- before you to evaluate daily operation,
18 reliability, range, cost, overall impact, and especially
19 impact on fareboxes. We believe this will be critical.

20 And finally, we must stress to you the importance
21 of the Air Resources Board's support to provide broad
22 policy more akin to the ICT for near-zero trucks in the
23 Advanced Clean Transit proposal that ARB staff are
24 currently considering.

25 Hopefully, and I'm sure you do, can appreciate

1 the hesitancy of owners and of fleets to choose clean
2 options today, if the Air Resources Board is continually
3 focusing on zero exclusively in broader policy mandates.
4 We believe that it's going to be critical for us to meet
5 our air quality goals, not just throughout the state, but
6 in the South Coast and the San Joaquin, by ensuring that
7 we have a future that brings all clean technologies
8 forward and requires them, and also, obviously, shows your
9 approval.

10 With that, I want to thank you, and I appreciate
11 your time and consideration.

12 CHAIR NICHOLS: Thank you.

13 MR. LEVIN: Madam Chair, members of the Board,
14 Jamie Levin with the Center for Transportation and the
15 Environment. We are a nonprofit organization that is
16 involved presently deploying battery electric and fuel
17 cell electric projects throughout the state and the United
18 States. We are funded with CARB funding to deploy the
19 largest fuel cell electric bus program here in California.
20 We'd like to acknowledge the hard work that staff has put
21 into this effort for this regulation, and we do endorse
22 it.

23 But we are not only involved in implementing
24 these on-the-ground projects, but we are working with a
25 number of major transit agencies here in California in

1 developing their transition plans. And it is extremely --
2 I think this -- your staff and the Board recognizes the
3 logistics that transit agencies have to incur in order to
4 deliver service day-in day-out.

5 And what we see, as we develop these transition
6 plans, there's a significant issue related to financing --
7 the ability to finance these new technologies, and also
8 there's the challenge of ensuring that the technology will
9 actually be able to provide the kind of service that these
10 agencies presently provide.

11 That said, I want to emphasize that there are two
12 electric drive technologies that are going to help us
13 achieve the CARB regulations. One we all know is battery
14 electric, and the other, as I said, is fuel cell electric
15 bus transportation.

16 Fuel cell buses are more expensive. The hydrogen
17 fueling technology has some significant investment
18 requirements. But we have seen over millions of miles of
19 fuel cell buses in day-in day-out operation performing
20 quite successfully as a one-for-one replacement for
21 conventional vehicles.

22 There are challenges with the hydrogen fueling
23 infrastructure. But the capability of hydrogen fueling to
24 scale up to large fleet numbers is very significant. And
25 we want to emphasize that it is so important for this

1 Board and your staff to fund that additional cost
2 associated with fuel cell technology, so that we will
3 reach parity with these two technologies to ultimately
4 achieve our objectives here.

5 Thank you very much for your time.

6 CHAIR NICHOLS: Thank you.

7 MS. PHILLIPS: Kathryn Phillips with Sierra Club
8 California. Thank you, Chairwoman Nichols and the rest of
9 the Board for sticking with this issue for so many years.
10 And thank you to the staff for the hard work you've
11 invested in it.

12 I think what was most telling was that you had a
13 couple of very important transit agencies coming up early
14 and noting that this rule is bold, but reasoned, and that
15 there are challenges, but we know it can be done. I think
16 that suggests how hard your staff has worked to come up
17 with a rule that the transit agencies believe they can
18 work with, that will ultimately get us to zero-emission
19 buses throughout our transit agencies by 2040, and that
20 will satisfy the environmental interests.

21 I want to point out just a few reasons this is so
22 important. One, it's about health. While we talk a lot
23 about climate change when we talk about emissions these
24 days, it's important to remember that the reason we
25 started the drive to get to zero-emission vehicles in the

1 first place was to protect public health. And that's
2 still a very important reason. And this will deliver
3 public health benefits.

4 We need this rule now in 2018, not later. We
5 have all heard the most recent reports about climate
6 change from the National Assessment, the IPCC report, et
7 cetera, et cetera. And there's no time to lose.

8 Zero-emission technology is here. It is cost
9 effective. It is becoming even more cost effective.
10 Ranges are expanding. And we -- you'll hear more about
11 that later.

12 Zero-emission buses are creating jobs in the
13 manufacturing industry in California. There is a real
14 huge, huge opportunity here to advance California's
15 manufacturing ability. We can become the center for these
16 buses -- the center of manufacturing for these buses,
17 providing good jobs, family-sustaining jobs.

18 And California needs to maintain our leadership
19 in clean vehicles. We've seen reasons for that over and
20 over and over again.

21 Finally, I want to say something about methane.
22 You know, there was a time when methane was considered the
23 bridge fuel. Well, that's no longer the case. We've
24 moved to a place where the technology has advanced enough
25 that we can go straight to renewable energy. We can go

1 straight to zero-emission vehicles.

2 Methane is no longer a bridge. It's part of the
3 problem. It's one of the most potent climate change
4 gases, and we want to make sure that what we do in
5 California is move as far away from that as we possibly
6 can, as soon as we can. And this new rule will help us do
7 that.

8 Thank you

9 CHAIR NICHOLS: Thank you.

10 MR. PINGLE: Hello, all. My name is Ray Pingle.
11 I'm with Sierra Club California. We support the ICT rule
12 and urge you to approve it today.

13 More than adequate funds are available to assist
14 transit agencies in paying for the capital costs of the
15 transition to ZEBs. The total cost of ownership for this
16 transition is positive without any grant funds, and then
17 the -- but in early years, additional capital is needed.

18 On electrical infrastructure, it's being paid for
19 by utility programs under SB 350 and combined with HVIP
20 incentive covers the majority, if not all of these costs.
21 The difference in cost between electric and conventional
22 buses is continuing to decrease as battery costs decline,
23 and electrics are likely to reach parity with CNG buses in
24 the next several years.

25 In the interim, there are a host of incentive

1 programs to pay for the incremental cost of electric
2 buses, including SB 1 is providing \$750 million per year
3 for the next ten years. HVIP has averaged \$150 million a
4 year for the last two years. The TIRCP program provides
5 300 million, and LCTOP offers 150 million per year. And
6 there are many other programs.

7 And with the additional revenue the transit
8 agencies will receive from these programs, the total cost
9 of ownership, which already started out positive, becomes
10 even more positive, producing even more savings for
11 agencies. If the agencies cannot get adequate incentive
12 funding, which is highly unlikely, they can lease the
13 buses and pay for them with operating savings.

14 And finally, if agencies still can't pay the
15 extra costs, they can apply for an exemption from the
16 rule. So agencies are well protected from financial
17 concerns caused by this rule.

18 Finally, we would like to recommend that CARB
19 develop several educational programs through the years to
20 help transit agencies learn how to do this transition.
21 Two subject areas of importance are what are all the
22 incentive programs available and how can we take advantage
23 of them, and how do we go about designing and implementing
24 the optimal charging infrastructure systems.

25 Our sincere thanks to you, the members of the

1 Board, and to the staff for all your hard work, for
2 listening and coming up with a rule that can move us
3 forward towards urgently needed climate mitigation,
4 healthier air, more jobs, and a growing economy.

5 Thank you.

6 MR. LEACOCK: Good morning, Chairman Nichols,
7 members of the Board. My name is Kent Leacock, and I'm
8 with Proterra, a battery electric bus manufacturer.

9 First of all, I'd like to thank the staff for
10 their hard work over these many years to come to a
11 rulemaking that, as stated before, many transits are now
12 able to support because they believe it's very doable.
13 Proterra stands poised to continue to work with State and
14 federal level officials to facilitate funding to help the
15 transit industry make this historic transition from fossil
16 fuels to zero-emission vehicles.

17 Furthermore, Proterra has pioneered innovative
18 financing tools that allow transit agencies to lease
19 batteries, to lease buses, all with the hopes of negating
20 the impact to their capital budgets.

21 We continue to drive down costs of these
22 zero-emission buses. And in addition, we continue to
23 innovate. The technology is keeping pace. Proterra has
24 recently introduced new high-powered charging options that
25 deploy universal industry standards, so they are not any

1 one OEM specific.

2 Proterra continues to build, design, and
3 manufacture the battery systems and the buses here in
4 California, and create jobs, good jobs, for all
5 Californians. Let me reiterate. We will continue to work
6 to secure public funding opportunities, such as the FTA's
7 low or no emission grant to help offset the cost for
8 battery electric transit fleets.

9 States across the U.S. are watching this
10 rulemaking, so I would say thank you for leading the
11 nation in the transition to zero-emission vehicles.

12 CHAIR NICHOLS: Thank you.

13 Before you leave the podium, at the risk of
14 prolonging the discussion, I just want to ask you quickly,
15 because you referenced your work with agencies on helping
16 to facilitate getting charging. You're a bus
17 manufacturer, right? But you -- and so that's your
18 interest here, but you've also been involved on the
19 charging side. So could you just say a word about what
20 you're doing in that regard?

21 MR. LEACOCK: Well, we've established our own
22 line of actual chargers, of 60, 120, and even up to 500
23 kilowatts. We're looking at solutions to allow for
24 charging at scale, working with charge management
25 software, working hand-in-hand with the utilities on the

1 infrastructure to design whether utility -- whether the
2 transits should become distribution level customers,
3 depending on their load.

4 So there's a lot of intricacies involved with the
5 charging infrastructure, which is now be -- going to be
6 the next challenge. And so we've been working hard to
7 respond to what we consider is the next challenge on the
8 horizon for electric buses at scale.

9 CHAIR NICHOLS: Thank you.

10 Okay. Mr. Bouwkamp

11 MR. BOUWKAMP: Good morning, Madam Chair, Board
12 members. I'm only going to give a few comments. I am
13 neutral in this case, because of our membership. We are
14 in support of fuel cells, because of the California Fuel
15 Cell Partnership. But I wanted to urge to -- urge you to
16 consider both of the options, as was mentioned earlier by
17 Mr. Levin from CTE to consider both battery and fuel cell
18 options equally. Especially, we're looking at a longer
19 timeline. We're not looking at the coming two years, but
20 we're looking at 2030.

21 With regards to funding support on the
22 infrastructure side of things, the challenge is that there
23 are a lot of unknowns, the cost of infrastructure,
24 especially for the fleets you're talking about is
25 significant. And I urge ARB to consider dedicated funding

1 for heavy-duty fueling infrastructure, both for hydrogen
2 as well as for fast charging for buses, because there lots
3 of unknowns at this point, because there are not really
4 any large fleets in the state that operate like transit
5 agencies do today.

6 Then the other thing is a dedicated person on the
7 side of GO-Biz. They've been very supportive on the
8 light-duty side of things. But now we're moving into the
9 heavy-duty side of things, be it now buses and then later
10 trucks, there is not a dedicated person in that area that
11 can support transit agencies or infrastructure providers
12 to address things that they run into with regards the
13 implementation of the infrastructure.

14 So one consideration - I realize it's most likely
15 not part of the language, but something to think about for
16 the future - that a person dedicated to -- on the
17 heavy-duty side of things full time.

18 Then one last point. I did notice in the staff
19 presentation that there were -- were comments related to
20 the incentives available. Yes, that is true, but that is
21 today, and we're looking at 12 years ahead and possibly
22 beyond that. That may not be a good indicator. And the
23 needs for heavy-duty infrastructure and buses may be
24 larger than we anticipate at this point, because we're
25 only looking at buses, and we can only wait and see what

1 happens when the truck industry also gets motivated by
2 this Board, and by this organization to move towards zero
3 emission.

4 Thank you very much

5 CHAIR NICHOLS: Thank you.

6 MR. AHN: Good morning, Board members. Eddie
7 Ahn, Executive Director of Brightline, an environmental
8 justice organization dedicated to local communities and
9 nonprofit service providers. Our issues are really about
10 local hiring, workforce development, as well as cleaning
11 our environments with technologies that are hopefully
12 equitably distributed.

13 To that end, we believe transitioning the bus
14 fleets across the state of California are incredibly
15 important. Brightline, throughout the summer of 2018, has
16 worked directly with youth in Bayview-Hunters Point and
17 the A. Philip Randolph Institute of San Francisco, for
18 instance, to talk about green zones, and make sure that
19 bus routes are aligned with battery electric buses.

20 So we appreciate the intent of this rule, and
21 believe that it will increase equitable access to our
22 communities in cleaning the air of our communities, as
23 well as more importantly perhaps increasing workforce
24 opportunities.

25 So we appreciate staff's focus on that as it

1 relates to disadvantaged and underserved communities, and
2 would like to urge the Board for its immediate passage of
3 this rule today.

4 Thank you.

5 CHAIR NICHOLS: Thank you.

6 MR. KHATRI: Good morning. My name is Bhavin
7 Khatri from San Francisco Municipal Transportation Agency.
8 I'd really like to take this opportunity to thank the
9 staff for working really closely with us on adding bonus
10 credit for our zero-emission trolley coaches and also
11 including the language for gradeability. We really
12 appreciate that.

13 The reg -- the proposed regulation has come a
14 long way. And I'd like to applaud the staff again for
15 integrating many of the feedback and addressing concerns
16 of many of the transit agencies.

17 We'd also like to thank the environmental groups,
18 particularly the Union of Concerned Scientists,
19 Earthjustice, and Brightline Defense for listening to our
20 concerns and providing the necessary support.

21 San Francisco Mayor London Breed and SFMTA fully
22 supports the proposed ITC regulation. We've been national
23 leaders in zero-emission technology, and -- due to our
24 zero-emission trolley buses. We've also released our RFP
25 to purchase nine battery electric buses as of November.

1 The proposed regulation also aligns with our
2 transportation climate action strategy, which establishes
3 a framework for reducing greenhouse gas emissions from the
4 San Francisco transportation sector and increasing the
5 resilience of San Francisco transportation system for
6 future climate impacts.

7 In May 2018, our Board of Directors adopted a
8 zero-emission policy, which includes the initial
9 procurement of zero-emission buses starting 2025 with the
10 goal of achieving 100 percent battery electric vehicle
11 fleet by 2035.

12 This proposed regulation will allow us to
13 implement our own plan -- zero emission plan. So we
14 really want to, once again, thank the staff for all their
15 work. Excellent.

16 Thank you.

17 CHAIR NICHOLS: Thank you.

18 MR. SASSEEN: Good morning, Chair Nichols and
19 esteemed Board members. I'm Tim Sasseen with Ballard
20 Power Systems. And I'd like to tell you a Christmas story
21 this morning.

22 (Laughter.)

23 MR. SASSEEN: It's Christmas time again in
24 Wilmington California in the year 2044. My little
25 granddaughter Maria has hailed us a bus to ride down to

1 the port to spend the afternoon. The air is cool and
2 sweet with flowery smells from rooftop gardens. And the
3 vast parks that we pass reclaimed from immense parking
4 lots of long ago.

5 We take our seats on the bus and I can hear my
6 grinning granddaughter quietly humming an old U2 song. It
7 takes my mind back from all this abundance, the days of
8 scarcity long ago, back when what we now call the energy
9 wars kept us in constant conflict and fear. And it seemed
10 all -- we all had a dire sense of what the future would
11 bring.

12 We worked hard back then to grab the sun from the
13 desert, the wind from valleys, and the waves from the
14 ocean to save us from the choking excrement caused by
15 liberating millions of years of carbon in just a little
16 over a century.

17 We mined lithium, split water, turned mountains
18 of garbage into fuel to liberate our neighborhoods and
19 communities from the grips of petroleum addiction, and to
20 avert a downward spiral of climate disasters, conflicts,
21 war, famine, and global suffering. It still makes my eyes
22 water when I think of what we might have lost had we not
23 had the courage to act then.

24 Maria grabs my hand and snaps me out of it,
25 pointing excitedly out of the broad windows. We've

1 arrived, and we hop out of the immense container -- to see
2 the immense container ships and great hydrogen tankers
3 returning from the floating wind farms far over the
4 horizon, sun glints off electric scooters and bicycles
5 that whiz by the green paths and the lawns of the
6 waterfront filled with picnicking families and hustling
7 buskers.

8 We pass a small museum on the way and pictures in
9 the window grab Maria's attention, crowded highways, dingy
10 parking lots, and abandoned neighborhoods. Maria asks me,
11 "Grandpa, how did we clean up the cities"?

12 I stop to recollect and I tell her, "Well, Maria,
13 it all started with people who believed that a little bus,
14 just like the one we road this morning, could change the
15 world, and it did".

16 Maria smiles at me and says, "I love you,
17 grandpa". "I love you too, Maria. Merry Christmas".

18 (Laughter.)

19 MR. SASSEEN: Thank you.

20 CHAIR NICHOLS: Thank you.

21 (Applause.)

22 MR. BOYCE: That's a pretty hard one to follow.

23 (Laughter.)

24 CHAIR NICHOLS: Yes, it is. You could sing.

25 (Laughter.)

1 MR. BOYCE: Good morning. My name is Bill Boyce
2 of SMUD. Greetings to the Board and the Chair.

3 SMUD supports the ICT regulation. We have a long
4 history of supporting electrification in the Sacramento
5 community and our various transit agencies, and even
6 outside agencies that come to Sacramento. We stand ready
7 to support the transportation electrification that will
8 come from this regulation.

9 In fact, dialogue is already taking place with
10 some of those customers with regards to detail planning on
11 distribution grid and other things to support the charging
12 infrastructure.

13 In addition, we've already been supporting
14 customers with proposals, trying to acquire different
15 types of rolling stock. And Sacramento also will have an
16 early chance to actualize some of that with regards to
17 some of the activities that were actually discussed
18 yesterday with VW's Electrify America's Green City
19 project.

20 SMUD looks forward to working with transportation
21 electrification, commitment to zero-emission transit, and
22 the benefits it will bring our community.

23 The last thing I'll say is we're also in the
24 process of developing new rates to help address demand
25 charges which we know are one of the key barriers for this

1 market to be successful.

2 Thank you.

3 MR. LLAMAS: Good morning, Chair Nichols and
4 members of the Board. I am Sal Llamas, Chief Operating
5 Officer at AC Transit. We serve 13 cities in
6 unincorporated areas in Alameda and Contra Costa counties.

7 I want to express my sincere appreciation to the
8 Air Resources Board members, and specifically to staff who
9 have spent a significant amount of time really
10 collaborating and working with transit agencies. And I
11 can attest of the amount of time and effort that they put
12 in, and the serious consideration to understand the
13 complexity of a transit system, and how it operates and be
14 able to merge this regulation into it. So I want to thank
15 you for -- staff for doing that for us.

16 And I want to also reaffirm that AC Transit is
17 committed to transition its fleet to a 100 percent
18 zero-emission bus. In fact, AC Transit has been a pioneer
19 and leader in deploying zero-emission buses for over 18
20 years. AC Transit is committed to continuing to
21 collaborate efforts with CARB to move forward with
22 implementing this regulation.

23 However, we believe that this partnership needs
24 to include a funding commitment for infrastructure
25 investments in fueling, charging, and maintenance

1 facilities, and storage capacity.

2 AC Transit also appreciates including a
3 performance review one year before the start of the
4 purchase requirements, and we urge the Board to continue
5 to periodically conduct performance reviews of
6 zero-emission bus technology, the status and the
7 advancements of the technology.

8 Lastly, AC Transit supports the clarifications
9 made to the exceptions provisions with respect to
10 financial hardship, the recent amendments allowed for
11 exemption based on the inability to offset the electricity
12 cost.

13 However, this does not include the potential high
14 cost of electricity to produce hydrogen or the cost of
15 purchasing hydrogen for fuel cell buses. We urge you to
16 expand this exemption to recognize the fiscal impacts of
17 both electricity and hydrogen costs.

18 On behalf of AC Transit, we support the proposed
19 regulation, and we look forward to working together to
20 implement it.

21 Thank you very much.

22 CHAIR NICHOLS: Thank you.

23 MS. DURAN: Good morning, Chair Nichols and
24 members. I'm Alejandra Duran with the Weideman Group here
25 behalf BYD. BYD is a California-based manufacturer of

1 battery electric buses and trucks. And we have several
2 deployments -- excuse me -- across the state.

3 First of all, we would like to thank the Board
4 and staff for the opportunity to comment here today on
5 this, and express our strong support for it. This rule we
6 believe is a critical step in California's fight to reduce
7 greenhouse gas and criteria air pollutants emissions, and
8 creates a template for other states that can follow.

9 From BYD's experience, California is primed and
10 ready for the transition to zero-emission buses. In
11 California alone, BYD has delivered 79 buses to public
12 transit agencies with another 122 orders on the way.

13 Beyond providing buses for public transit fleets,
14 we have provided more than 100 buses of other fleets to
15 LAX and several tech companies in the Silicon Valley. But
16 we're especially proud of being a partner with California
17 universities. For example, we've partnered up with
18 Stanford, which has 40 of our buses, UCI, which is going
19 100 percent electric, UCLA and UCSF as well.

20 With adoption of this rule, we believe the
21 enormous potential of battery electric buses will be truly
22 realized while also creating a strong beachhead for other
23 market segments like trucking to transition to zero
24 emission.

25 Once again, thank you for the opportunity to

1 comment on this milestone rulemaking.

2 MR. SEGURA: Good morning, Chair Nichols, members
3 of the board, and ARB staff. My name is Nick Segura. I
4 am the business manager of IBEW Local 569 in San Diego,
5 California. I traveled to attend this meeting so I could
6 express our strong support of my 3,500 members for the
7 zero-emission bus rule.

8 Your yes vote is very important to IBEW members
9 for many reasons, including:

10 Reducing greenhouse gases; the health of our
11 greater San Diego community; and all of California, and
12 three categories of jobs:

13 First, California has become the capital of
14 electric bus building in the U.S. and a considerable
15 number of good manufacturing jobs have been created. With
16 a yes vote today, thousands more will gain a ticket to the
17 middle class. While not IBEW jobs, they are important to
18 the people who get them and the economic health of the
19 state.

20 Second, the additional electric infrastructure
21 needed to charge electric buses will put thousands of IBEW
22 electricians to work. And there will be even more
23 electrical training, apprenticeship opportunities and jobs
24 for disadvantaged communities. The IBEW is making sure
25 that the communities that need -- that most need good

1 paying jobs will benefit.

2 With a substantial part of zero-emission --
3 zero-emission bus infrastructure workforce IBEW recruits
4 members of disadvantaged communities, women, veterans, and
5 into the 21st century California apprenticeship
6 training -- or, I'm sorry to the 21 California
7 apprenticeship training programs and turns out to be --
8 they turn out to be great electricians who have more than
9 a job, but a valuable career and a great trade. They will
10 play a major role in building the zero-emission bus
11 electrical infrastructure.

12 Finally, there is enthusiastic IBEW support for
13 the zero-emission bus rule all across California that
14 could be expressed by a number of IBEW speakers lining up
15 behind me, but we are conscientious of the time and the
16 concern about the long agenda you have that you're trying
17 to get through. Therefore, at this time, I'd like to ask
18 IBEW and NECA members here today from around California to
19 stand up in an expression of their enthusiastic support
20 for a yes vote.

21 Thank you.

22 (Applause.)

23 MR. SEGURA: Thanks for your time.

24 CHAIR NICHOLS: Thank you. That's an impressive
25 show of support.

1 MR. JABLONSKI: Good morning. My name is Paul
2 Jablonski. I'm the CEO of the San Diego Metropolitan
3 Transit System.

4 I guess in light of the Christmas season, what
5 would it be without a Grinch, right? So I find myself in
6 that --

7 (Laughter.)

8 MR. JABLONSKI: -- unenviable position.

9 But, you know, I want to thank Richard Corey and
10 staff for continuing to collaborate with the transit
11 industry throughout, I guess, it's been at least three
12 years in this. And there's been a lot of hard work on
13 each side. And that's important, because the consequences
14 of not getting this right are very high. You know, we
15 don't have unlimited subsidies. You know, I sat three
16 hours yesterday through raising fares in San Diego, both
17 in North County and with MTS, and it was heart-wrenching.
18 And we don't want this issue to create a situation where
19 we have to raise fares again or cut service.

20 You know -- and I have to take exception with the
21 statement in the staff presentation that this technology
22 will produce substantial savings to transit industry. As
23 someone who operates over 800 vehicles and his operated a
24 number of fleets over my career, this will not produce
25 substantial savings to us.

1 (Holding cell phone up.)

2 MR. JABLONSKI: This has not gone down in price
3 for me over the last five years. In fact, it continues to
4 go up every time I change it out.

5 I'm very happy that the resolution calls for a
6 review by this Board of the technology. It's vitally
7 important that we not jeopardize transit service to our
8 community as an unintended consequence of this regulation.
9 And I know most of my colleagues are planning to implement
10 this technology, but no one has yet figured out how to
11 charge a fleet of 800 buses in an urban environment
12 operating scenario.

13 I truly hope that the ZEB technology reaches the
14 effectiveness and reliability that the manufacturers of
15 them continually purport, as well as the CARB staff. And
16 I really worry about how much it's going to cost us in
17 terms of our electricity rates, which seem to go up every
18 year.

19 Once again, I want to thank you for the degree of
20 security that the resolution provides and the Board
21 looking at this, because as I said, the stakes are very
22 high.

23 Thank you and Happy Holidays.

24 CHAIR NICHOLS: Thank you, and we understand.

25 MR. SHAW: Madam Chair, members, Joshua Shaw,

1 Executive Director of the California Transit Association
2 representing the public transit agencies that will be
3 subject to this regulation.

4 As Shirin told you in her opening remarks, my
5 association does support the goal of converting
6 California's transit bus fleet to 100 percent zero
7 emissions by 2040. And, in fact, the regulation before
8 you today is significantly better than the regulatory
9 concept that staff released last December. And it's even
10 an improvement on the draft regulation you all looked at
11 three months ago in this room.

12 So we thank you, Madam Chair, the Vice Chair,
13 Board members, the staff for continuing to work with us to
14 improve the mechanics of the regulation and for your
15 assurances today that this ambitious plan to electrify
16 transit fleets will not adversely impact transit services.

17 When I say transit services, forget about my
18 public transit agencies that pay me to talk like this.
19 I'm talking about the people that rely on public transit.
20 Madam Chair said it's well documented, unfortunately, that
21 we're in a period of transit ridership decline. We need
22 all the help we can get to turn that around. That's more
23 important, what the people who rely on transit need,
24 rather than what the transit systems need.

25 Having said that, we do see several challenges on

1 the horizon for this regulation that could undermine the
2 electrification plans of even the most bullish transit
3 systems. And several of my dues-paying members came up
4 and told you they support this regulation.

5 They're professional staff -- many of the
6 professional staff at some of those agencies still share
7 concerns with us about implementation. These challenges
8 include, but are not limited to, the availability of
9 funding to purchase ZEBs and install related
10 infrastructure, the high cost of electricity as a fuel,
11 the scalability of charging infrastructure, and the cost
12 and performances of zero-emission bus technology relative
13 to conventional fuels that we use today.

14 To protect transit agencies, and more importantly
15 the riders who rely on this service from these challenges
16 and any unintended consequences of this regulation, we had
17 called for establishing cost and performance benchmarks in
18 the regulation. We had called for mandating a regulatory
19 assessment in the regulation. We had called for funding
20 for transition, meaning compliance funding, not just
21 incentive funding. Most of those things are not in the
22 regulation itself.

23 While we think that's a grave mistake, we are not
24 taking for granted the fact that language has been put
25 into the resolution you're going to adopt today that

1 demonstrates your commitment. We thank you for those
2 changes very, very much. We're going to need your help,
3 when and if, those challenges we predict come on line.
4 You just heard a speaker who talked about the practical
5 challenges. We are going to rely on you and your staff to
6 be realistic, if the cost isn't there, if the performance
7 isn't there, and if the funding isn't there.

8 Please help transit systems serve the people who
9 rely on public transit after today's adoption of this
10 regulation.

11 Thank you.

12 CHAIR NICHOLS: Thank you. Could you stay for
13 just a sec. Thank you. I think I understand your
14 position, and you represent a broad range of districts
15 with different needs, and different sizes, and funding,
16 and all the rest. And so I'm not going to challenge you
17 in terms of your position, but I am going to ask something
18 of you.

19 As I read this rule, there are so many escape
20 hatches, if you will, that it is frankly somewhat
21 questionable from -- if you look at it from a purely
22 regulatory enforcement perspective, how effective this
23 rule is going to be. It cannot be effective if the
24 agencies don't cooperate. And while I appreciate the
25 support from the districts that have come up, your

1 comments, frankly, make me very nervous. Because clearly
2 if an agency wants to find reasons why they can't get the
3 buses, or they're -- the current buses aren't working the
4 way they wanted them to, or the money wasn't quite as much
5 as they thought it was going to be, they could make a
6 case, and I think it would be hard for an agency like ours
7 to resist, that they can't possibly comply with the goals
8 of the regulation.

9 So how are we going to get to a point where we're
10 all working together to try to make this thing a success?

11 MR. SHAW: Sure. Madam Chair, a couple points.
12 First, early this year, we proposed a set of concepts for
13 a regulation to get us there in a way that we thought
14 would work. So as a whole, our industry has been
15 cooperating with you this entire year. I simply this
16 morning documented two major asks that we didn't get in
17 the regulation. But I thank you for the pieces of that
18 that went into the resolution, and I'm -- and that's on
19 the assessment and the degree to which you're directing
20 your executive officer and staff to come back and tell you
21 about things we wanted documented in the regulation.

22 And then I also said, you haven't changed your
23 stance on compliance funding. And I get why in a
24 regulation you can't do that. We're going to ask you
25 later when you do things like plan your next three years

1 of Cap-and-Trade funding to help us get there. We are
2 asking for your help. We're not saying we're not going to
3 do that.

4 You've also heard there are bullish transit
5 systems who are already there or who will be there.
6 That's happening. I stipulate to that. That -- I hope
7 all of our agencies take that approach. Then, there are
8 those who are going to struggle. There are smaller
9 agencies who aren't going to be able to get their at least
10 on the -- ahead of the incentive funding based timelines
11 that are in this regulation. But they're still going to
12 have to get and we're going to ask them and the
13 legislature to work together with you on funding sources
14 to get there.

15 And then at the end of the day, if you don't
16 trust me, it's been demonstrated that my friends in the
17 environmental community can get to the political
18 appointees and electeds who run the transit systems who
19 are forcing their staff to get there. So we're going to
20 get there one way or the other.

21 We've just simply talked about how to get there
22 in the way that does the least potential harm to transit
23 riders. New costs, that's going to be scary. We're going
24 to have to deal with that together. We are not
25 recalcitrant. I didn't say we opposed the regulation

1 today. I just said please help us implement it the day
2 after you adopt it.

3 CHAIR NICHOLS: It's not exactly a partnership,
4 but I'm going to take it as an offer to have one.

5 (Laughter.)

6 MR. SHAW: Thank you.

7 CHAIR NICHOLS: Thank you. Appreciate it.

8 Okay. Before we take up the next speaker, we are
9 up to 40 people. We're not going to take anymore sign-ups
10 at this point. And I am going to ask -- sorry, more than
11 40.

12 BOARD CLERK DAVIS: There was one late addition.
13 We'll get you the card.

14 CHAIR NICHOLS: Excuse me?

15 BOARD CLERK DAVIS: There was one more addition.

16 CHAIR NICHOLS: Oh, okay, so 41. Thank you.

17 Thanks for the correction.

18 And so I am going to ask people at this point,
19 voluntarily if they can try, to limit their comments also
20 to two minutes, if you can do that. It's going to be much
21 appreciated, before we actually start, you know, buzzing
22 you or anything like that. Okay. Thanks.

23 MR. FOLAN: I will. My name is Kenneth Folan,
24 and I'm with the Metropolitan Transportation Commission
25 staff. And we certainly at MTC share the broad vision of

1 the regulation. And we -- it's been mentioned a couple
2 times about partnership and working together. We want to
3 make sure that the meeting last week between the CTC and
4 the CARB can serve as an example of how we can work
5 together with State agencies as well as partner with MPOs
6 and the transit agency.

7 We also share concerns on the funding side.
8 We're in the middle of a capital replacements for BART
9 cars for CalTrain electrification, Muni light rail
10 vehicles. So there's a lot on our plate down in the Bay
11 Area.

12 One thing I'd mention on the new information that
13 we received this morning is that operators usually start
14 planning for their purchase two years in advance, so I
15 would encourage your staff to start the review as soon as
16 you can, so that that can inform that process. The sooner
17 you get started with the review I think the better.

18 Thank you.

19 CHAIR NICHOLS: Thank you.

20 MS. SHUMWAY: Good morning. My name is Emma
21 Shumway. And I'm with Environment California. And I'm
22 also speaking on behalf of the thousands of UC students
23 who submitted photo petitions in support of this rule.
24 Outside of the U.S., other cities are already
25 demonstrating the immediate feasibility of these

1 large-scale electric bus transitions.

2 In December 2017, Shenzhen, China became the
3 first city in the world to operate entirely electric
4 buses. And their fleet is 16,000 buses, which is three
5 times larger than New York City's bus fleet, which is the
6 largest in the U.S.

7 And here in the states there's no doubt that
8 California is taking the lead on the nationwide transition
9 to electric buses with San Francisco, L.A., and other
10 leaders in California making the zero emission commitment
11 for their buses already, and the California Public
12 Utilities Commission making the historic \$760 million
13 investment in electric charging infrastructure, including
14 charging for electric buses. And today, we have the
15 opportunity to continue this momentum with the passing of
16 the Innovative Clean Transit Rule.

17 The time is right for pioneering rulemaking.
18 Industry experts predict that the sound production of
19 electric buses will skyrocket in the next decade. But the
20 transition to electric buses is not inevitable, so in
21 order to get the most benefit for our health and the
22 environment, we need to start now and rapidly accelerate
23 towards an all electric bus future.

24 Thank you.

25 CHAIR NICHOLS: Thank you.

1 MR. JACOBSON: Hello. My name is Dan Jacobson.
2 And I'll keep my comments really brief. I am actual bus
3 rider, and I take the E14 on ETran every day from Elk
4 Grove in here. And I'll tell you one thing, we should
5 thank the bus drivers, because they really are the unsung
6 climate heroes, who are keeping thousands, if not hundreds
7 of thousands, of cars off the road every single day, and
8 our doing us a great service, and we can't forget that.

9 The second thing I'll say is while this rule is
10 great, we're going to come back to you fairly soon and say
11 we need to do more. We've got to look at the delivery
12 trucks. And I think really most importantly for the
13 health and safety of our kids, we've got to look at the
14 school buses. And so we're talking about transit here,
15 but we're going to come back and talk about school buses,
16 and we want to do that as quickly as we can.

17 And finally, I'll just say it was just a couple
18 months ago where the Governor signed a bill to get 100
19 percent clean energy, and we should be applauding that.
20 But at the same time, we should be setting a goal for zero
21 percent childhood asthma and saying that we're going to
22 get to there by 2030. And I would encourage all of us to
23 adopt that as a goal as well.

24 Thank you.

25 CHAIR NICHOLS: Thank you.

1 MR. SAADAT: Good morning, Chair Nichols and
2 members of the Board. My name is Sasan, and I'm here on
3 behalf of Earthjustice. And we've been working with
4 partners across several coalitions to move California's
5 transit buses to zero emissions. Years in the making,
6 this rule builds in flexibility for transit agencies and
7 still provides the overdue relief to communities burdened
8 by some of the worst air quality in the country.

9 And while we feel this rule missed an opportunity
10 for much more decisive action, it's essential that we move
11 forward. The surest risk we face now is inaction. For
12 the health of our communities and the safety of our
13 climate, further delay is far more damaging than the
14 rule's limitations. What we need is to build momentum.
15 And to do that, the immediate adoption of the ICT is
16 essential.

17 CARB's own reports have shown the stubbornness of
18 transportation emissions. The great news is that as soon
19 as the ICT rule passes, the benefits amplify with time.
20 The proposed rule has already spurred proactive measures
21 from transit agencies here today demonstrating their bold
22 leadership. And that early adoption is going to make
23 existing trends of declining costs, and increasing range
24 even more dramatic. Those technological developments will
25 be able to be leveraged across the transportation sector,

1 for example, with heavy-duty trucks.

2 And unlike natural gas buses, electric buses get
3 cleaner over time as California closes in on 100 percent
4 renewable energy. With zero tailpipe emissions, there's
5 no asterisk next to the enormous public benefit that these
6 transit buses provide. Health advocates fighting for
7 clean air, environmentalists fighting for a safe climate,
8 and communities fighting for affordable mobility, we will
9 all find our common champion in California's transit
10 agencies.

11 And done thoughtfully, this transition will
12 provide employment for under-resourced communities, and
13 develop the workforce that's critical for our broader
14 energy transition.

15 Earthjustice really appreciates the work that
16 CARB staff have done to address these urgent concerns, and
17 we thank you for the opportunity to underscore the need
18 for this rule.

19 We look forward to applauding California's
20 continued leadership and this agency's role in it.

21 CHAIR NICHOLS: Thank you.

22 MS. HEFFLING: Good morning, Chair Nichols and
23 the Board. My name is Emily Heffling. I'm an outreach
24 coordinator and policy advocate with the Union of
25 Concerned Scientists. I'm also a bike commuter in

1 Oakland, so I'm really personally excited to be here to
2 support this rule and appreciate AC Transit's further
3 underlining of their commitment as well.

4 And on behalf of our 75,000 supporters in
5 California, and 3,000 scientists, public health experts,
6 and technical experts, we're here to thank you for your
7 three years of really hard work and leadership on the
8 innovative clean transit rule, and your commitment to
9 cleaner air and healthier people in California.

10 I interface with our supporters regularly as part
11 of my job on a variety of topics. And I can say that the
12 messages that we got from people on this rule were some of
13 the most excited, and enthusiastic, and highest rates of
14 action that we've seen in a really long time. So people
15 are really excited about this.

16 This is also a historic step for California,
17 as -- as far as we know, it's the first legally binding
18 transition to 100 percent zero-emission fleet. So while
19 this is a huge step for California, we also recognize the
20 impacts that this rule will have on other states and the
21 rest of the country, and just the ripple effects that this
22 leadership here today will have at a time that we really,
23 really need it nationally. So thank you, and we strongly
24 support the adoption of this rule today.

25 CHAIR NICHOLS: Thank you.

1 MR. DONAHUE: Good morning, Madam Chair and
2 members. Jake Donahue on behalf of the Tahoe
3 Transportation District. While we do not take a formal
4 position on this proposed regulation today, we do want to
5 express our gratitude to the Board and staff for taking
6 steps to transform California's transportation system.

7 Tahoe Transportation has always been a proponent
8 and leader in initiating clean technology in public
9 transit. And we are pleased to see the Board taking up
10 that causes as well. We do though want to stress the
11 importance of funding being dedicated to support this new
12 rule, and the importance that that funding be administered
13 in a way that is truly technology neutral.

14 As many of you likely know, in the Tahoe region,
15 we face cold temperatures, high and varying altitudes,
16 long-range routes, steam terrain and other unique
17 situations that make an array of technologies, including
18 hydrogen, necessary to achieve our shared goals as
19 outlined in this proposed regulation.

20 We look forward to engaging with staff and the
21 Board as we move forward together to implement this new
22 rule.

23 Thank you very much.

24 MS. GOLDSMITH: Hi. Good morning. Nice to see
25 you all again today. Hannah Goldsmith with the California

1 Electric Transportation Coalition. And today, we want to
2 briefly offer our support for adoption of the Innovative
3 Clean Transit measure, and its principal goal of achieving
4 a zero-emission transit system in California by 2040.

5 We find the rule and its flexibilities
6 conservatively ambitious, reasonable, and necessary to
7 meet our State's air, climate, and economic targets. Our
8 members, including utilities, zero-emission bus
9 manufacturers, charging station providers, and others see
10 the transit agencies as our partners, and have been and
11 will continue to work with them to make the transition to
12 zero-emission buses as smooth as possible.

13 Many of our utility members have in place or are
14 in the process of getting approved -- I have to make those
15 caveats -- programs to cover a large portion of the
16 charging infrastructure costs. They also are undergoing
17 beneficial adjustments or seeking approval for adjustments
18 to rates that will better serve transit agencies.

19 And I do want to highlight that CalETC's biggest
20 priority in the legislature every year is securing funding
21 for transit buses, trucks, light-duty vehicles, all
22 zero-emission technologies. And so we will continue to do
23 that with the gusto that we have in the past.

24 And I do want to say that CalETC does not oppose
25 allowing this funding to continue through compliance of

1 the regulation.

2 We thank staff for the numerous meetings, phone
3 calls, and opportunities to provide feedback during this
4 regulatory process, and recognize staff's diligent work to
5 strike an appropriate balance on this rule. We urge your
6 approval today.

7 Thank you.

8 MR. COSTANTINO: Good morning. Jon Costantino on
9 behalf of Trillium. They are a innovative provider of
10 infrastructure for hydrogen, electricity, and renewable
11 natural gas. So as a private infrastructure provider, we
12 are agnostic to the fuel, and we believe this regulation
13 provides enough flexibility, but would like to make sure
14 that the operational needs of all our customers, which are
15 the transit fleets, is -- are always satisfied.

16 We're happy to see the resolution have the annual
17 number -- the annual review, as well as the performance
18 review. One thing I will note is that the annual to the
19 Board requirements do not discuss cost. And we can't wait
20 four, five, six years to talk about that. So love to see
21 some of those cost numbers brought back to the Board every
22 year.

23 And with that, we look forward to working through
24 some of these infrastructure issues as the years go by.

25 Thank you.

1 MR. BARRETT: Good morning. I'm Will Barrett
2 with the American Lung Association in California.

3 I wanted to first start by saying we strongly
4 support moving forward with this rule today. We've been
5 working on it with your staff and members for quite some
6 time, and think it's in a really good place to move
7 forward and continue the advancement of public health
8 through zero-emission technologies.

9 We think that setting the course to 100 percent
10 zero-emission transit is a critical step for public health
11 in California, and for climate protections that we know we
12 need to achieve as quickly as possible.

13 The transportation sector is the leading source
14 of harmful air and climate pollution in our state. And
15 your direction today to zero emission will improve air
16 quality and climate across California communities.
17 Especially important for our disadvantaged communities to
18 see that cleanup happen as rapidly as possible.

19 The staff have taken real care with the
20 development of this rule, and we appreciate it advances
21 zero-emission technologies across the heavy-duty sector,
22 community mobility -- that discussion at the CTC meeting
23 last week was so important on, you know, ways that we can
24 really advance community mobility options and clean up the
25 air at the same time.

1 Hitting our SIP commitments. This is an
2 important rule for making sure that we are making those
3 commitments and meeting those commitments made in the
4 implementation plan.

5 And then also the cross-agency partnership. We
6 see this as very important on, you know, making sure that
7 the state is moving in lockstep with our local public
8 agencies to make sure that we are achieving our clean air
9 goals.

10 So on behalf of the 100 or more health
11 professionals who signed the letter that the Lung
12 Association submitted, gathered some of those signatures
13 with the Union of Concerned Scientists and their outreach
14 program, we urge you today to move forward to reduce
15 dependence on harmful fuels that impact public health in
16 California, and really make sure that we're moving forward
17 as quickly as possible.

18 I think the transit agencies have made
19 significant commitments already, and will continue to do
20 that in partnership with this rule in place. So thank you
21 very much again to the staff working on this rule for so
22 long. We're here to work with you as it moves forward and
23 really look forward to making sure that California
24 continues this path down to zero-emission technology
25 pathway, so that we can achieve our clean air and climate

1 goals as quickly as possible.

2 Thank you all very much.

3 CHAIR NICHOLS: Thank you

4 MS. TSAI: Good morning. Hello again. I'm
5 Stephanie Tsai with the California Environmental Justice
6 Alliance. We're a statewide coalition of grassroots
7 member-based organizations, who work directly with
8 low-income communities and communities of color across the
9 State. And we're here today to show our strong support
10 for this rule. We're very excited about it. You know,
11 it's a very important step, as you've heard from many of
12 our colleagues today for both our climate change and air
13 quality goals.

14 In particular, I want to appreciate the work --
15 all the work that's led up to this point, and your bold
16 leadership in moving this forward. We encourage you to,
17 of course, pass it today. And we're particularly
18 encouraged by, you know, the connection between how this
19 can help us move forward in electrification of the
20 heavy-duty sector, and, in particular, trucks coming up
21 next after buses.

22 As you know, public transit buses have a much
23 more direct and widespread impact for our communities for
24 low-income communities and communities of color across
25 the State, much more than, you know, other sectors of

1 electric vehicles like light-duty.

2 And so in implementing this rule, we strongly
3 urge the staff to work closely with transit agencies to
4 ensure that electric buses are deployed in disadvantaged
5 communities as much as possible, and as early as possible
6 to help alleviate some of the severe health impacts and
7 air quality issues in our communities across the state.

8 And to complement this, we also strongly support
9 the development of good jobs and strong workforce policy,
10 particularly as targeted higher and other tools like that
11 can help provide good jobs for our community members.

12 And, you know, in addition to that, since this is
13 about public transit agencies, we really believe that
14 public money should help support good local jobs for our
15 communities.

16 In closing, I'll just say that there are a lot of
17 categories of incentive funding to help support this, and
18 we really look forward to continuing to work on some of
19 those, and help target, and prioritize disadvantaged
20 communities through that.

21 Thank you very much.

22 CHAIR NICHOLS: Thank you.

23 MR. KOTLIER: Good morning, Chair Nichols,
24 members of the Board, and ARB staff. My name is Bernie
25 Kotlier and I am the Executive Director of the California

1 Labor Management Cooperation Committee, IBEW and NECA.

2 For my office in San Jose, I represent thousands
3 of contractors and electricians all over our state who
4 urge you to vote yes on this zero-emission bus ruling.

5 Members of the National Electrical Contractors
6 Association, or NECA, include contractors of all size --
7 sizes and construction specialties in every part of
8 California.

9 Collectively, our contractors employ more than
10 30,000 well-trained highly-skilled electricians. They
11 care about our great state, our economy, our environment,
12 and our climate. NECA contractors understand that any
13 transition that involves changes in infrastructure can be
14 challenging, especially for transit districts.

15 The transition to ZEBs will take considerable
16 technical knowledge, skills, and abilities. And some
17 transit agencies will need help. NECA contractors are
18 ready and able to assist. NECA contractors support
19 cleaner air, greenhouse gas reduction and decarbonization,
20 a healthier environment, strong, available, and affordable
21 public transit, outreach comprehensive training and
22 employment of increasing numbers of veterans, women, and
23 members of disadvantaged communities.

24 NECA believes that a yes vote today is the best
25 way to achieve our State policy goals and do the right

1 thing for future generations.

2 Thank you for the opportunity to express our
3 support, and thank you all for your commitment and
4 dedication to public service and to the public good.

5 CHAIR NICHOLS: Thank you. We welcome your
6 participation. It's great to have you.

7 MR. APPEL: Good morning, Chair Nichols and
8 members of the Board. My name is Sam Appel. I represent
9 the BlueGreen Alliance. We're an alliance of large
10 environmental organizations and unions across the country
11 and in California.

12 We're very pleased to see you considering this
13 rule and hope that you vote yes on it today. We also
14 appreciate your mentions in the presentation and in the
15 resolution of attention to good jobs in ZEB manufacturing
16 operations and maintenance.

17 Although, we appreciate these mentions, and we
18 appreciate working with CARB to make these outcomes
19 happen, we know that high-quality jobs for disadvantaged
20 communities are not guaranteed per se by the
21 implementation of this rule. We know that you do
22 understand this, and we look forward to making sure that
23 you take the next steps to make sure that those jobs are
24 actually delivered to the disadvantaged communities that
25 we're talking about today, and to make sure that those

1 are, indeed, high-quality jobs with sustainable high pay,
2 training, fair labor practices, and retention.

3 We know that proactive policies are necessary,
4 because without proactive policies, like the U.S.
5 employment plan, or the fair and responsible precedent, or
6 other such proactive policies, just incentivizing the
7 industry to develop itself does not guarantee that these
8 jobs are good.

9 Disadvantaged communities we want to prioritize
10 first for these jobs, and also for rollout of the buses
11 themselves for the air quality benefits. We see this as a
12 really important stage for the development of high quality
13 jobs and access policies, especially because transit buses
14 are the beachhead for the rest of the HD sector. And
15 there's going to be a lot of potential for developing
16 high-quality jobs and access for disadvantaged communities
17 as we go down through drayage trucks, medium-duty and the
18 rest of the heavy-duty technologies.

19 For example, we want to just highlight how the
20 energy sector has made this just transition possible. In
21 energy and the development of renewables, we've seen that
22 proactive policies have ensured that high quality jobs and
23 disadvantaged community access are built into the very
24 policies themselves that develop the renewable mandates
25 for California and the RPS.

1 Thank you for your consideration. We look
2 forward to working with you.

3 CHAIR NICHOLS: Thank you.

4 MR. BAGUIO: Good morning, Chair Nichols and
5 Board members. I'm Nate Baguio with the Lion Electric
6 Company. We are a manufacturer of zero-emission battery
7 electric transit buses, trucks, and probably most visibly
8 here in the Sacramento area, school buses, the ones with
9 the blue bumpers you see driving around the city here made
10 possible by CARB. So thank you for that.

11 As a life-long Californian, I want to express my
12 support of this rule for its -- for addressing climate
13 change, and also the air quality in our great state, but
14 also want to kind of give you a peek behind the walls at
15 the Lion Electric Company. And that just the potential of
16 this rule already has us creating new jobs. We're hiring
17 here in California. We are looking at opening a couple of
18 manufacturing centers here in California, not only because
19 of this rule, but also because of the grants. And it's
20 important to know, and I'm sure you know this, but
21 there -- the grants and these type of rules are working.

22 The cost of our vehicles has dropped
23 dramatically. The performance of the vehicles. The range
24 has gone up dramatically in the last two years. We are
25 spending not only just on jobs in California, but also the

1 development of technologies to address barriers and
2 concerns, and even perceptions people have. We're looking
3 at high-speed charging, and swappable batteries, and a
4 number of different things to address the barriers that
5 some folks may bring up.

6 Also, want to let you know that we've already
7 started these things. We've opened a facility here in
8 Sacramento in the Natomas area as an experience center
9 helping educate people on the possibilities that
10 zero-emission vehicles bring to their communities, and how
11 wonderful they are.

12 I want to thank you for the hard work you do for
13 the State of California, and for the work you've done on
14 this rule, and the Lion Electric Company supports it
15 fully.

16 Thank you.

17 CHAIR NICHOLS: Thank you.

18 MR. MAGAVERN: Good morning. Bill Magavern with
19 Coalition for Clean Air. And I'll just make three quick
20 points in support of this rule on emissions, technology,
21 and funding.

22 First of all, we do need the reductions in air
23 pollution from this rule. And as the staff presentation
24 noted, those reductions will come especially in our
25 disadvantaged communities that need them the most.

1 And, in fact, your State Implementation Plan
2 counts on those reductions and counted on them starting
3 already, because the rule was to have been adopted last
4 year. But the process has been a sound one, and we very
5 much support the proposal in front of you.

6 When it comes to technology, we do see this as a
7 way station as we continue to develop zero-emission
8 technology for heavy-duty vehicles. So we'd like to see
9 that expand into other kinds of buses and other heavy-duty
10 vehicles. And I'm talking about both battery electric and
11 fuel cell electric both delivering zero emissions.

12 And finally when it comes to funding, there --
13 fortunately, we've had ample incentive funding available
14 in recent years. I think it's incumbent on all of us who
15 are involved in the annual budget process to make sure
16 that that continues. And I guarantee that Coalition for
17 Clean Air will be actively advocating for more funding for
18 clean transportation. And we look forward to working with
19 other partners in that efforts.

20 Thank you.

21 CHAIR NICHOLS: Thanks, Bill.

22 Hi.

23 MR. FLORES: Hi. Good morning. Good morning,
24 Madam Chair and esteemed Board. My name is Ericka Flores.
25 And I am a community organizer with the Center for

1 Community Action and Environmental Justice. We are
2 located in the southern part of California. And we work
3 within the inland valley region, which encompasses two of
4 the major counties here in California.

5 Today, I'm not only here to speak as an
6 organizer, but also as a community member who resides in
7 one of the most vulnerable communities, which has been
8 impacted by dirty diesel, specifically that created by the
9 transit industry. I live in a community that has been --
10 who lives and is neighbor to one of the largest -- our
11 only actually provider of public transit, OmniTrans. I
12 know we're not here to talk about them specifically.

13 But for many years, they have -- they house
14 natural gas on their sites. They transition now and
15 they've now -- they're housing -- housing it underground.
16 However, the adverse health impacts that our community, my
17 community, my family has experienced due to not having
18 zero emissions has been quite adverse, and impactful in a
19 very negative way.

20 For this reason, my community and the
21 organization that I represent we support this rule. We
22 need it now in 2018. I'll admit that I am very hopeful to
23 hear that there's a variety of agencies here today, big
24 agencies, including transit agencies who are willing, and
25 able, and happy, and looking forward to working today in

1 supporting this rule, and moving forward with this.

2 And so 2040 although is exciting as a milestone,
3 we're in desperate dire need to have this sooner. I'm not
4 sure if there could be any changes actually in terms of
5 the time -- the timeline. But for us, I think there are
6 various opportunities here. I heard through different
7 speakers that there's a variety of programs that are able
8 to fund some of the costs in order to make this transition
9 happen.

10 As well as we are also in desperate needs of
11 jobs. And residents in my community, like various of my
12 family members, are more than happy and willing to enter
13 into manufacturing industry that can train them, so that
14 they are able to enter and help create the zero-emission
15 buses. And so there are a variety of different
16 opportunities that come with this rule that will benefit
17 people like myself, benefit people like the community that
18 we serve.

19 The oil industry lies all the time. I believe
20 that going near zero is not the way. We've been doing
21 that for a long time. We have clearly seen and observed
22 that it's not working. Our residents in our communities
23 are literally dying. And most importantly, I see a
24 long-term opportunity to, as somebody also mentioned it,
25 to transition to the heavy-duty sector.

1 So I look forward to working with you in the
2 future, and I hope that you can pass this rule today.
3 Thank you.

4 MS. VIDAURRE: Hello, Board members. My name is
5 Andrea Vidaurre. I am with the Center for Community
6 Action and Environmental Justice. I am from the dry ports
7 of the Inland Empire in Southern California, also widely
8 known as one of the largest distribution hubs of the
9 nation.

10 Today's decision is incredibly important for the
11 State of California, for the State of climate change, and
12 very specifically for the communities like mine that have
13 been inundated by freight pollution.

14 Today is a chance to reverse all -- today is a
15 chance at beginning to reverse all the wrongs that have
16 been forcibly imposed on the most vulnerable communities
17 here in California, the communities who, at their expense,
18 much of the nation benefits from. These communities who
19 are suffering from the slowest lung growth rates, asthma
20 cases, and hospital visits due to the oversaturation of a
21 dirty transportation system, and subsequent poor air
22 quality.

23 We have a core principle within our various EJ
24 communities, and that is that our solutions do not come at
25 the cost or expense of another community. That is why we

1 cannot depend on an unreliable fossil fuel industry that
2 drags us into a prolonged and unnecessary commitment that
3 takes lives as its casualties. And I say this as someone
4 who is following the footsteps -- you might -- as you've
5 just heard of those that have passed away fighting for
6 their lives and those that are still fighting for their
7 lives in the Inland Empire.

8 Much of the externalities we face have been
9 because a stand hasn't been taken in the past. A stand
10 hasn't been taken on investing on what we know is the only
11 way forward, which is the requirement and deployment of
12 zero-emission transportation technology. This rule is the
13 only way our environmental justice communities see moving
14 forward, because of the path it will create for clean
15 energy, technology that will inevitably bring clean
16 trucks, safer jobs, and healthier air into our
17 neighborhoods.

18 The direction you all take today is monumental,
19 and the solutions we have been demanding for years, and
20 the only solution we can take moving forward from here on
21 out.

22 We're excited to see our transportation agencies
23 take the lead as they always have, and be the precursor
24 for the energy infrastructure and zero-emission technology
25 deployment. We need and will get through this rule.

1 The solutions are right in front of us. They
2 just need moral investment and leadership. So what's
3 stopping us?

4 Thank you.

5 CHAIR NICHOLS: Thank you.

6 MS. VERDUZCO: Good morning, members of the
7 Board, Chair Nichols. My name is Iris Verduzco. I'm a
8 resident of the City of South Gate. And I presently work
9 with the Moving Forward Network that's based out of the
10 Urban and Environmental Policy Institute at Occidental
11 College.

12 I'm here today in strong support of the
13 Innovative Clean Transit regulation. The adoption of this
14 rule serves as a necessary regulatory stance to get us to
15 a zero-emission transit bus future. The adoption of this
16 rule is monumental as it will serve as precedent for many
17 states that look to California. We have the opportunity
18 to be an environmental leader to commit to zero-emission
19 buses.

20 As we've heard from previous speakers, the
21 implementation is here. I want to echo that we have the
22 technology. We have -- we are able to show that the costs
23 are comparable to other buses. We have the will of
24 transit agencies, such as L.A. Metro, who has committed to
25 become zero emissions by 2030. And while in cities like

1 mine that need more access to bus routes, we want to
2 ensure that when these routes and these buses come to our
3 communities, we want these buses to be clean, to be zero
4 emissions.

5 As I briefly shared yesterday, the work I engage
6 with, the Moving Forward Network, is committed to
7 improving the freight transportation system in areas of
8 environmental justice, public health, quality of life, the
9 Environment, and labor. We are invested in co-powering
10 communities like mine that are disproportionately
11 suffering from the negative impacts of industrial and
12 freight pollution.

13 This rule mostly excites me when I think of how
14 the manufacturing of this technology will further support
15 the electrification of the freight transportation system
16 that will mitigate the negative impacts of emissions in
17 cities like South Gate. Our communities need zero
18 emissions now. As our community members often say, we are
19 just trying to breathe.

20 I look forward to the Board's support with this
21 mission and this regulation passage.

22 Thank you so much.

23 CHAIR NICHOLS: Thank you.

24 BOARD MEMBER DE LA TORRE: Mary?

25 CHAIR NICHOLS: I think Board Member De La Torre

1 wants to say a word.

2 BOARD MEMBER DE LA TORRE: It's -- I just want to
3 acknowledge it's so incredibly rare to have someone come
4 up here both from South Gate, which is my hometown, and
5 where I live, and from Occidental, which is the school
6 that I went to.

7 (Laughter.)

8 BOARD MEMBER DE LA TORRE: So -- and I'm on the
9 Board of. So very much doppelgänger. Thank you for
10 coming and speaking today.

11 (Laughter.)

12 CHAIR NICHOLS: So his vote was in danger before,
13 but this has been --

14 (Laughter.)

15 CHAIR NICHOLS: You make a difference.
16 Seriously, we welcome you. Thank you.

17 All right.

18 MS. FIEBERLING: Good morning. My name is Emily
19 Fieberling, and I'm with Environment California. And as
20 my colleague said earlier, I also represent the thousands
21 of UC students who took photo petitions in support of
22 electrifying the California bus fleet, of which I'm a
23 recent grad.

24 Buses are the workhorses of the transportation
25 system. Yet, the majority of buses in California and

1 across the nation burn fossil fuels like diesel and
2 natural gas that put the health of our communities at risk
3 and contribute to global warming.

4 Our new report that we submitted for record on
5 electric buses finds that whether community -- commuters
6 are on or boarding buses, they're exposed to toxic air in
7 high concentration. There's no reason why we should be
8 running dirty polluting buses that contribute to global
9 warming in communities when we have cleaner and better
10 options.

11 Our report finds that if the state's seven
12 largest transit agencies replace 3,130 of their diesel
13 buses, it would be the equivalent of taking 34,000 cars
14 off the road each year, when it comes to greenhouse gas
15 emissions and reducing toxic air pollution.

16 Just imagine the benefits to our children, our
17 communities, and our climate if all of Californians --
18 California's transit agencies and school districts
19 achieved full electric bus fleets. And that's why we're
20 in support of this ruling today.

21 BOARD MEMBER BALMES: Emily, before you leave,
22 can I ask you what UC campus you're from?

23 CHAIR NICHOLS: Excuse me?

24 MS. FIEBERLING: UCLA. Go Bruins.

25 (Laughter.)

1 CHAIR NICHOLS: Okay. Everybody is going to have
2 to state their affiliation from now on.

3 MR. PIMENTEL: All right. Madam Chair and
4 members, Michael Pimentel here today on behalf Alex
5 Clifford CEO of Santa Cruz Metropolitan Transit District.
6 He regrets that he cannot be here today. But I ask that I
7 give this remark -- these remarks on his behalf.

8 So on behalf of the Santa Cruz Metropolitan
9 Transit District, I'd like to thank the Board and staff
10 for the opportunity to participate in the development of
11 this new zero-emission bus regulation. I'd also like to
12 thank Mr. Kitowski and his staff for changes made to the
13 draft ICT that have been developed as a result of numerous
14 meetings with the California Transit Association and its
15 members.

16 Santa Cruz Metro is committed to zero-emission
17 buses, and supports the Governor and ARB's goal of
18 achieving zero-emission bus fleets by 2040. We have some
19 concerns with how we will meet these goals. But rather
20 than go into the details of those, I'll simply align
21 myself with the comments of Mr. Shaw, and say that we look
22 forward to continuing to work with you to get this right
23 in implementation.

24 Now breaking from the comments that Alex
25 provided, I do want to note -- you know, to the point of

1 collaboration and partnership between the transit industry
2 and ARB, minutes after this meeting I'll actually be
3 meeting with your staff directly -- I've been the lead
4 staff for the California Transit Association on this
5 regulation -- to talk about how we make this feasible.
6 I'm talking about the technology constraints, how we work
7 past them, how we can partner on funding, on electricity
8 rates to actually make this something that the transit
9 industry can comply.

10 So thank you very much.

11 CHAIR NICHOLS: Thank you.

12 MS. MITCHELL: Good morning, Madam Chair and
13 members.

14 CHAIR NICHOLS: Good morning.

15 MS. MITCHELL: Wendy Mitchell. I'm here on
16 behalf of the L.A. County Metropolitan Transit Authority
17 and in support of the ICT regulation.

18 As you all know, Metropolitan has taken a -- the
19 Transit Authority has taken the position to go all
20 electric by 2030 of their 2,300 fleet bus. And in the
21 next year, we'll have -- we have ordered and will have in
22 route 105 electric buses. So we're working hard on the
23 infrastructure that's associated with that, and working
24 with the utilities. And we thank your staff for all the
25 hard work on this regulation and urge your support.

1 Thank you.

2 MR. SCHUCHARD: Good morning, Chair Nichols,
3 Board members. I'm Ryan Schuchard with CALSTART. There's
4 a growing body of evidence that around the world cities
5 are, in large numbers, deploying zero-emission buses and
6 they know they can do it. There's 25 cities that have
7 commitments by 2025 to do 100 percent zero-emission buses,
8 16 to 17 thousand are in the City of Shenzhen, as we
9 already heard, and around 270,000 in China more broadly.

10 So when CARB enacts this rule, it's doing so in
11 accordance with many places around the world. And as it
12 does so, the rule will drive significant economies of
13 scale that will result in lower prices to make the
14 transition easier. And, of course, it will also help to
15 further drive the further beachheads, delivery vans,
16 drayage, and so and others.

17 So with that, I want to thank you the staff and
18 the whole CARB team for such a thorough and considerate
19 process. Staff has done such a really good job of coming
20 up with this and listening to and creating a number of
21 important flexibilities to deal with ongoing uncertainties
22 with the transition.

23 I do just want to say that as the rule is
24 implemented, we do need to make sure that we do give the
25 resources to the transit agency they need to succeed. And

1 just three points on that. We do wish to continue that
2 there is sufficient incentive funding, as many others have
3 pointed to, many of whom we will be working with in
4 concert to help make happen.

5 Number two, if the total cost of ownership
6 matters are not addressed as the regulation begins, it
7 will be important that funding continue to be eligible for
8 the transit fleets in the regulation.

9 And then finally in a nod to giving transit
10 agencies even greater resources, we need to increase the
11 levels and type of demo and pilot funding for demand
12 responsive transit, and other innovative solutions that
13 the transit agencies can use to increase ridership.

14 So to conclude, we commend CARB for their hard
15 work on this difficult task, and look forward to helping
16 everybody implement the rule.

17 Thank you.

18 CHAIR NICHOLS: Thank you.

19 MS. BHOLA: Hi. Good morning, Board members. My
20 name is Abhilasha Bhola. And I'm the Senior Policy
21 Coordinate at Jobs to Move America. Jobs to Move America
22 is a national organizations partnered with six
23 international unions, and is dedicated to creating good
24 jobs in manu -- in the transit manufacturing sector and
25 providing access to those jobs for disadvantaged

1 communities.

2 We are in full support of the Innovative Clean
3 Transit Rule and urge you all to support it today. Not
4 only will this rule reduce greenhouse gas emissions in
5 environmental justice communities across the state, but
6 this burgeoning industry could support tens of thousands
7 of jobs in manufacturing, infrastructure installation and
8 maintenance.

9 With the hopeful passing of this rule, we have a
10 critical opportunity to provide good jobs to communities
11 facing significant barriers to employment.

12 Furthermore, we really appreciate your commitment
13 to both the resolution and the -- in both the resolution
14 and the presentation to workforce development and training
15 programs. But training is only one component of spurring
16 good job creation. We encourage ARB to also adopt
17 proactive jobs policies, such as the U.S. Employment Plan
18 that incentivize manufacturers to provide good jobs to
19 disadvantaged communities.

20 We look forward to continuing to work with you
21 all, and again encourage you all to support the Innovative
22 Clean Transit rule.

23 Thank you.

24 CHAIR NICHOLS: Thank you.

25 MR. ASHLEY: Good morning, Chair Nichols, members

1 of the Board. I'm Tom Ashley, Vice President of Policy
2 for Greenlots. As a reminder, we're a leading electric
3 vehicle charging software and services firm based in Los
4 Angeles. Greenlots is strongly supportive of this
5 regulation, but we do want to make a couple of important
6 notes.

7 One, we do want to ensure continued support from
8 the Board and indeed the stakeholder community to ensure
9 that there is adequate funding for transit districts to
10 make these transitions.

11 We also want to encourage sort of a continued eye
12 on the state of the infrastructure to support these buses,
13 both encouraging potentially further investments by the
14 utilities, as well as considering important steps such as
15 managed charging to ensure that costs of energy are as low
16 as possible.

17 Finally, I would offer sort of a common refrain
18 from Greenlots that while we're very supportive of this
19 regulation, we also don't believe it goes far enough, or
20 acts as quickly as we ultimately need to act. So we will
21 encourage the Board and all of the stakeholders to
22 continue to think about how we can accelerate this
23 transition and ensure that, in this case, the cities and
24 transit districts have the adequate support to continue to
25 move forward.

1 Thank you.

2 CHAIR NICHOLS: Thank you. That concludes the
3 list of witnesses. So at this point, we can close the
4 record for the public hearing portion of this proceeding
5 and move towards the resolution.

6 Do Board members have any questions for staff or
7 comments?

8 Yes, Ms. Takvorian.

9 BOARD MEMBER TAKVORIAN: Okay. Thank you. I
10 just wanted to say that I'm really excited to support
11 adoption of rule today, and when the times comes, would be
12 happy to make that motion.

13 I want to just say that I really appreciate CARB
14 staff's works on this. It was at the first Board meeting
15 that I was at as Board member. And so it's really great
16 to see it come to conclusion today. And I really
17 appreciate the transit agencies' collaboration with the
18 staff and all of the revisions that have been made to make
19 it really feasible.

20 The program has been in development for years,
21 and I think it really is serving as a balance, and I'm
22 going to stay hopeful about that, to really protect public
23 health and the environment, as well as keeping the transit
24 agencies viable.

25 I really appreciate the involvement of the

1 electrical workers especially, because I feel like they're
2 our experts in the field to ensure that this transition
3 occurs in a safe and stable manner. Really thank them and
4 appreciate the important inclusion by staff of the
5 workforce training, because I know that that's going to be
6 a critical part to making this really work. And I know
7 that San Diego's IBEW local has been a leader in solar
8 installation training. And I know that's really made it a
9 good option for folks in San Diego and around the country.

10 I guess I want to say, and I'm probably not going
11 to do a great job of this, but despite being the home of
12 Dr. Seuss, I really don't want San Diego to take the --
13 any pride in playing the role of the Grinch.

14 So I don't think Mr. Jablonski wants to do
15 either. I don't think he takes any pleasure in that. And
16 I certainly believe that MTS -- the MTS Board is very
17 supportive of electrification of the fleet. And I think
18 the current plan is going to provide an opportunity for
19 all of the children Whoville to breath --

20 (Laughter.)

21 BOARD MEMBER TAKVORIAN: -- clean air and pay
22 reasonable fares. Whoville, more seriously, is Barrio
23 Logan, South Gate, Riverside, Imperial, and all of the
24 other disadvantaged communities and impacted communities
25 that where we know children have elevated rates of asthma.

1 And we know that they need to get to work and to
2 school, and their parents need to get to work. So we want
3 those fares to be reasonable. These direct emission
4 reductions that will come from this rule are critically
5 important. So I think that's really an important aspect
6 of this moving forward.

7 So I'm going to predict right here, and maybe
8 it's my New Year's Resolution, that as a result of both
9 the flexibility of the proposed rule, and the commitment
10 to making it happen, that San Diego is actually going
11 to -- a heart is going to grow by three times, if I
12 remember this story correctly --

13 (Laughter.)

14 BOARD MEMBER TAKVORIAN: -- and their commitment,
15 and that we'll back in a couple of years as a leader in
16 zero-emission technology in buses and not be a naysayer.

17 So all that aside, costs are real. And I know
18 that it was a very difficult decision to raise rates in
19 San Diego. And I know that's not where the Board or staff
20 want to be. So I really appreciate that the inclusion of
21 incentives and the technical assistance that staff is
22 giving, and the development of these plans will be
23 critical to helping, not only San Diego, but the transit
24 agencies across the state really move forward.

25 So I'm really putting my faith in those plans to

1 really match the incentives with the needs in each of the
2 transit agencies. And I want to just echo our Chair's
3 comment that we're going to need that commitment from the
4 transit agencies to really work with the staff to really
5 make it real and not take those outclauses or out
6 opportunities, but to really be committed to it.

7 So I I'm really looking forward to this, and I
8 think we're all committed to really working with the
9 agencies and the staff to make this a successful program.

10 So thanks so much.

11 CHAIR NICHOLS: I take that as a motion for the
12 resolution.

13 BOARD MEMBER TAKVORIAN: Okay.

14 BOARD MEMBER SERNA: Second.

15 CHAIR NICHOLS: And there was a second from Mr.
16 Serna.

17 Okay. Did you want to speak next or --

18 BOARD MEMBER SERNA: Yes.

19 CHAIR NICHOLS: Yes, go ahead then. Thank you.

20 BOARD MEMBER SERNA: Thank you, Chair Nichols.

21 So I do want to thank everyone that has come out
22 this morning to support this. As someone who has recently
23 taken the time to actually travel as far as Germany to
24 recently do kind of an exploratory trip on the subject of
25 innovative mobility to see what's happening in that

1 particular country, especially with regard to medium- and
2 heavy-duty battery electric applications. And then coming
3 back, and the following week going to the Proterra plant
4 down in City of Industry to see the advances that are
5 being made by that manufacturer in understanding how fast
6 the -- the range, in particular, is developing for these
7 battery electric buses.

8 It really does give me a greater sense of
9 comfort, not just as a member of this Board, but as
10 someone that also serves on a local regional transit
11 district board of directors here. I appreciate the
12 comments that were made by the Transit Association, but I
13 also appreciate the fact that even some of the members of
14 that association have expressed their strong support for
15 this. And I think that's probably a healthy indication
16 that we're making progress in terms of -- and hats off to
17 our staff for doing this, but making progress in terms of
18 really putting to rest, at least for the time being, the
19 fact that, yeah, there's going to have to make -- we're
20 going to have to have some investments made in, especially
21 the charging infrastructure.

22 And I know that there's been a great many
23 investments made on the natural gas side in the years
24 past, but that's how progress works. It's not always
25 neat. It's not always without a little bit of grief and

1 pain. But I think what we're seeing now is kind of almost
2 a logarithmic increase in the technology that is going to
3 really make this ultimately the future.

4 And so I think today's vote is really indicative
5 of a strong move in the right direction. And I appreciate
6 again everyone's comments this morning, especially from
7 the IBEW folks who had, I think, really articulated very
8 well the fact that this is not just about emission
9 reductions, which is obviously the main part of our charge
10 here, but this is -- has a great many intersections,
11 especially when it comes to workforce development. So
12 appreciate that.

13 Thank you.

14 CHAIR NICHOLS: Thank you.

15 Dr. Balmes.

16 BOARD MEMBER BALMES: Thank you, Madam Chair.

17 As a long-time proponent of clean transportation
18 solutions for the health reasons that Ms. Takvorian
19 mentioned, I think I surprised people when I was one of
20 the naysayers three years ago whenever we started
21 embarking on this Innovative Clean Transit regulation,
22 because I also am a strong supporter of public transit.

23 And I really want to thank everyone, stakeholders
24 on both the environmental justice side, the environmental
25 health advocacy side, the transit agencies, and especially

1 the staff, for working, I think, a pretty reasonable
2 compromise. It's not -- the fact that not everybody is
3 happy, I think, is probably a good sign, because we can't
4 make everybody happy all the time.

5 But I think we've got a reasonable compromise
6 that I'm very supportive of, both to improve the health of
7 especially environmental justice communities, but all
8 Californians, and to try to keep the transit agencies able
9 to move forward with this heavy lift.

10 And I'm especially pleased that we're going to
11 have the review -- I don't know exactly when it's
12 scheduled for, but the review of the technology and our
13 progress to make sure that we stay the course. So I'm
14 very pleased to support this regulation.

15 And I also want to join with Supervisor Serna in
16 thanking the members of IBEW for being here today to
17 support green jobs.

18 CHAIR NICHOLS: Thank you, Dr. Balmes.

19 Is there anyone else who wishes to speak before I
20 call for a vote?

21 BOARD MEMBER SPERLING: Yes.

22 CHAIR NICHOLS: Yes, Dr. Sperling.

23 BOARD MEMBER SPERLING: So I also want to thank
24 the staff for persevering and accommodating all of these
25 concerns. It's been a long painful process, I know, for

1 many on all sides.

2 And I do want to say, let me start with, I am
3 going to vote in support, but...

4 (Laughter.)

5 BOARD MEMBER SPERLING: And I do want to say I --
6 as everyone knows, I strongly support the goal of
7 electrifying transportation and electrifying buses,
8 electrifying cars, and electrifying most trucks.

9 And I would also note that actually our diesel
10 buses today are worse than cars per. I mean, excuse --
11 yeah, are worse than cars in terms of greenhouse gases per
12 passenger mile. So another reason to support it.

13 But, you know, I'm kind of feeling like, you
14 know, how lawyers are so good -- I'm not a lawyer -- so
15 good at coming up with all their whereases. So I have a
16 list of whereases here.

17 It's kind of my academic soul here, I couldn't --
18 couldn't let go.

19 (Laughter.)

20 BOARD MEMBER SPERLING: First of all, buses -- I
21 think the big picture is buses are really a tiny part of
22 the transportation system, a tiny part of the pollution
23 problem, a tiny part of the climate problem.

24 And, you know, for instance, it's -- I think we
25 estimated it's 0.25 percent of the criteria pollutants.

1 It's only one out of 15,000 vehicles in California. And I
2 kind of tried to come up with a percentage. I think it's
3 0.001 percent.

4 China produces -- in one year, China produces
5 seven times as many electric buses as we have buses in the
6 whole state of California, and they've done it for the
7 last couple years.

8 So this idea that it creates the platform for,
9 you know, heavy-duty technology just is not very
10 compelling to me.

11 And also, another whereas is, this is really a
12 unique regulation. You know, we're asking an industry or
13 a group to go to 100 percent ZEVs. We haven't told anyone
14 else to do that.

15 Remember, I did say I support this.

16 (Laughter.)

17 BOARD MEMBER SPERLING: And it also, even more
18 than that, it affects -- it's unique in that it affects
19 exclusively one of the most fragile governmental
20 institutions we have and one of the very important ones.

21 And on top of that, transit is in big trouble. A
22 few speakers mentioned that. And I work with quite a few
23 of the transit operators and I'm pretty familiar with what
24 they're going through. And they're losing rider -- almost
25 everyone is losing ridership. They have -- they've been

1 starved for so long financially, that they've really lost
2 a lot of their capacity in a lot of different ways.
3 They've been starved for 80 years. I mean, this is partly
4 an indictment to our State and our country about
5 transportation policy, and they've been kind of a victim
6 of that, our very car-centric approach to transportation.

7 And so the management of transit agencies now,
8 they need to focus on some big problems and big changes.
9 You know, they had to lose -- they're losing ridership.
10 There's this whole new wave of technology sweeping into
11 the industry, the information technologies, the
12 reservation technologies, automation technologies,
13 ticketing technologies. And on top of that, they serve
14 the most disadvantaged parts of our society.

15 And who's -- and I would point out, in contrast
16 to what most people here say is, I think the greatest need
17 with respect to transit is more and better transit, you
18 know, just at a time where it's getting worse and
19 deteriorating.

20 And so I do worry a lot about distracting
21 management and distracting these operators from what
22 should be their first priority.

23 Having said that, you know, it is really -- I've
24 been -- this is from my Chair. She's lectured me on this
25 in different ways over -- for many years is that signaling

1 and messaging really is important. And I think that is
2 the case here. We need to reaffirm we really are
3 committed to zero-emission transportation, and that is
4 hugely important.

5 But having said that, I think that we really --
6 that CARB -- you know, the staff has done a good job of
7 making accommodations. But I think I want to -- the
8 point -- I've gone through this whole little soliloquy.
9 It's not quite as good as a Dr. Seuss story.

10 But it's important that CARB -- this agency fully
11 embrace this partnership idea in the most generous and big
12 sisterly, not big brotherly way, but big sisterly way, and
13 be generous about it. You know, appreciating that a lot
14 of stuff is going to be happening for these transit
15 operators that -- I mean, of course, as people mentioned,
16 the technology is going to be changing, funding is -- you
17 know, this is a long-term thing. We don't really know how
18 funding is going to change. I was pleased to hear so many
19 organizations say they're committed to making sure there
20 is funding.

21 Serve -- even the nature of these transit
22 operators is likely to change a lot, especially the
23 smaller ones out -- you know, out -- when you get beyond
24 L.A. Metro and Muni, I mean, they're going to be changing
25 a lot, and in ways that are not really predictable, and

1 probably be a lot more public-private partnerships, and
2 there's going to be questions how do you provide funding
3 to agencies that are actually partly private in the
4 future.

5 So what I'm saying is, and this is a message more
6 to our, I guess, our Executive Officer and our staff, is
7 as we go forward, we need to be really -- embrace this
8 idea of partnership, and support as much as possible. We
9 need to bend over backwards, you know, to deal with this,
10 and we need to take it really seriously.

11 And, I guess -- I don't know if it goes into the
12 record for like ten years from now when there might be
13 another Executive Officer. But I just want to make sure
14 that we reaffirm that going forward.

15 Thank you.

16 CHAIR NICHOLS: Okay. Thank you for that.

17 And now Ms. Mitchell. Yes.

18 BOARD MEMBER MITCHELL: Thank you. Thank you.

19 Also, a big thank you to staff. I know they
20 worked very hard on this, and probably worked with each
21 Board member on a concern that each Board member had. So
22 thank you very much for that work you've done, and for
23 collaborating so well with the transit agencies, because
24 they have had some legitimate concerns.

25 And I think the regulation has worked out a lot

1 of those concerns, at least gives us a vehicle for further
2 discussion as this rule comes into play and a way to
3 collaborate on that.

4 I think the regulation -- and I'm fully
5 supportive of this regulation. It's -- it goes to the old
6 saying that the rising tide lifts all boats. And I feel
7 like this regulation does that, as it helps California
8 move to a completely zero-emission transportation sector
9 for all vehicle types. And I do think that it will help
10 the heavy-duty sector -- the heavy-duty truck sector as
11 well.

12 But I also want to recognize that transit
13 agencies are public agencies, and they are highly
14 subsidized now. I sit on the board of a very small
15 transit agency that services my region. And the L.A.
16 County, as well as the cities that are involved with that
17 region, all pump in a lot of money every year to keep that
18 going.

19 So they are, as Dr. Sperling said, fragile
20 agencies. And I think we need to recognize that as
21 they're public agencies, we need to give them maybe
22 special attention. And that's why I think the regulation,
23 which calls on these periodic reviews, is very essential.
24 That is also the key to making the regulation a success.

25 The regulation provides for those assessments

1 that some of our speakers have asked for for cost,
2 performance, technology, and incentive funding.

3 And I want to mention one thing with incentive
4 funding. Much of the incentive funding that is provided
5 through the various programs that we have does not allow
6 incentives for an improvement that is already required.
7 That requirement can come in the form of a statute. In
8 some cases, it comes in the form of a policy. And I want
9 to mention, and specifically with respect to that, that
10 the HVIP incentive funding is a policy that requires that
11 the upgrade be required by regulation.

12 And I mention that because it does provide us an
13 avenue that we could use in Board discretion to help our
14 transit agencies with additional funding. And I would
15 not -- I would limit any change in that policy
16 specifically to this situation, where we're dealing with
17 transit agencies that are public agencies, that are
18 already highly subsidized, as most of them are.

19 I also want to mention again the suggests that
20 one of our speakers made to take a good look at hydrogen
21 fueling infrastructure. Because as the gentleman from the
22 Tahoe Transit Agency mentioned, hydrogen may be the best
23 fueling technology available for buses that are going to
24 deal with steep grades or maybe very long distances, at
25 least in the immediate future.

1 So -- and I also think taking a look at that
2 fueling pathway is important, because it will help us
3 advance hydrogen fueling for heavy-duty trucks, and that's
4 an important component in our California scheme to reduce
5 criteria and greenhouse gas emission.

6 So I mention those things, because I think
7 they're important to our whole process, as we move into
8 this new realm of requiring a particular sector to go
9 completely zero emission.

10 And so thank you, staff. And all of us are going
11 to have to keep working this. And I urge strong
12 partnerships among the transit agencies, and between the
13 transit agencies and our staff.

14 Thank you.

15 CHAIR NICHOLS: Okay. Not everything has been
16 said by everybody. So, Dr. Sherriffs.

17 BOARD MEMBER SHERRIFFS: Thank you.

18 Although there are aspects of the environmental
19 gains that may be small, but this is very critical,
20 because this is highly visible. Bus and transit vehicles
21 are visible and they are palpably visible. You know, they
22 have localized adverse effects if they're not zero
23 emission low polluting. Bus routes are routes that are
24 active transit routes. This is where we see people
25 walking, shopping, where we see bicyclists.

1 I think that visibility is important. And I've
2 spoken before about branding. And I think, yeah, I
3 always -- I always take pride every time I see a transit
4 vehicle that, you know, clean air, and that -- well, I
5 think, again, we need to be sure, I think particularly
6 when our money is at play with these, that we be sure that
7 message gets out, because these are billboards to the
8 public. And I think the public takes pride when they see
9 that their public agencies are embracing what is positive
10 for the environment, positive for their health, positive
11 in so many ways for the community that we've talked about.

12 So I don't know what kind of brand we might be
13 moving forward on. But, you know, this is really leading
14 the way to zero-emission transportation. I mean, I think
15 that ought to be emblazoned on every vehicle that is
16 involved in this. And that's the future. And I think the
17 public takes pride in that, and it's important that they
18 see that. So thank you.

19 CHAIR NICHOLS: I agree with you. And thank you
20 for saying that. Is there anybody else who wants to
21 comment before I call for a vote?

22 SENIOR ATTORNEY BREHLER: Chair Nichols?

23 CHAIR NICHOLS: This is the end of a long process
24 and we've planted a flag.

25 SENIOR ATTORNEY BREHLER: Excuse me, Chair

1 Nichols, staff does have one response to comments.

2 CHAIR NICHOLS: You have to do the responses.
3 Okay. But you just interrupted me in the middle of my
4 closing statement. All right. Go ahead.

5 MOBILE SOURCE CONTROL DIVISION CHIEF KITOWSKI:

6 So we've heard a few comments from the public and
7 the dais here today that raise potential service- and
8 cost-related concerns. We have addressed those concerns
9 in our previously prepared written responses to comments,
10 which are before you today, to the extent that those
11 comments raise any environmental concerns.

12 CHAIR NICHOLS: Thank you.

13 Does anybody else have anything that they need to
14 add?

15 Okay. I just wanted to say before I ask the
16 Clerk to call the roll, so everyone can be on record as
17 casting their votes, that we're at the beginning of a
18 process here of moving towards 100 percent. It is a
19 highly visible act, because everyone of us who lives in a
20 city, or visits a city ever sees buses and knows how awful
21 they can be. When you're stuck behind one or next to one,
22 you can see it, and you can feel for what people in the
23 communities that they spend the most time in are
24 breathing.

25 So it's a very important step forward. And I

1 just want to congratulate the staff and the transportation
2 industry, the transit agencies for having come such a long
3 way. And I'm looking forward to our staff of rule writers
4 becoming technical assistants, and a very long and
5 productive relationship.

6 So with that, Madam Clerk, would you please call
7 the roll?

8 BOARD CLERK DAVIS: Dr. Balmes?

9 BOARD MEMBER BALMES: Aye.

10 BOARD CLERK DAVIS: Mr. De La Torre?

11 BOARD MEMBER DE LA TORRE: Aye.

12 BOARD CLERK DAVIS: Mr. Eisenhut?

13 BOARD MEMBER EISENHUT: Aye.

14 BOARD CLERK DAVIS: Senator Florez?

15 BOARD MEMBER FLOREZ: Aye.

16 BOARD CLERK DAVIS: Ms. Mitchell?

17 BOARD MEMBER MITCHELL: Aye.

18 BOARD CLERK DAVIS: Mrs. Riordan?

19 BOARD MEMBER RIORDAN: Aye.

20 BOARD CLERK DAVIS: Supervisor Roberts?

21 Supervisor Serna?

22 BOARD MEMBER SERNA: Aye.

23 BOARD CLERK DAVIS: Dr. Sherriffs?

24 BOARD MEMBER SHERRIFFS: Aye.

25 BOARD CLERK DAVIS: Professor Sperling?

1 BOARD MEMBER SPERLING: Aye.

2 BOARD CLERK DAVIS: Ms. Takvorian?

3 BOARD MEMBER TAKVORIAN: Aye.

4 BOARD CLERK DAVIS: Vice Chair Berg?

5 VICE CHAIR BERG: Aye.

6 BOARD CLERK DAVIS: Chair Nichols?

7 CHAIR NICHOLS: Aye.

8 BOARD CLERK DAVIS: Motion passes.

9 CHAIR NICHOLS: Thank you all very much.

10 (Applause.)

11 CHAIR NICHOLS: Thank you. We'd like to take a
12 ten minute break now. And we will resume at ten past
13 11:00.

14 Thank you.

15 (Off record: 10:58 a.m.)

16 (Thereupon a recess was taken.)

17 (On record: 11:15 a.m.)

18 CHAIR NICHOLS: All right, ladies and gentlemen,
19 if we could get back to our places here. While everybody
20 is reassembling, I want to make an announcement about our
21 schedule for today as follows: For those of you who may
22 be listening or watching on your computers, the last item
23 on our agenda for today is an update on the scoping plan
24 implementation. This is the tenth anniversary of the
25 adoption of our first AB 32 Scoping Plan. For those who

1 would like to celebrate, please do. I plan to myself.

2 But I talked to Mr. Corey during the break and we
3 don't think that this item is necessarily positioned as
4 well as it could be to lead to the conversation that I've
5 been sort of foreshadowing here about where we're headed
6 with the next scoping plan. I don't think we really need
7 much of an update on what we've done up until now.

8 What I think we want is an opportunity to talk
9 about where we're headed over the next year or two in the
10 new scoping plan. And so since there -- as far we can
11 tell, there was nobody who was actually signed up to speak
12 on the item anyway, we have suggested that this item be
13 moved to early next year. And so that would mean that the
14 last item for today's schedule would be the truck and bus
15 item that's on the agenda. It's not really saving any
16 particular time. It's just more a question of using the
17 Board's time as effectively as possible. So if I don't
18 see any objections, which I don't at the moment, that's
19 what we will do.

20 Okay. So let's get back to then the Proposed
21 Regulation for Reporting Criteria Air Pollutants and Toxic
22 Air Contaminants. This is -- this is a biggy. It's
23 important for all of our purposes, because emissions
24 inventories are the foundation of all of our programs.
25 They're a fundamental tool for all air agencies. And we

1 use them, of course, to understand what the sources are
2 that are contributing to our air quality and climate
3 challenges, how those contributions are changing over
4 time. We use them to evaluate our performance and think
5 about what we need to do next.

6 The passing of Assembly Bill 617 and Assembly
7 Bill 197 has challenged us to look at greenhouse gases,
8 criteria pollutants and toxics emissions data in tandem,
9 and to work towards presenting the data in a clear,
10 accurate, and concise manner that is accessible to the
11 public.

12 The proposed emissions reporting regulation
13 before us today is taking a step towards meeting the data
14 transparency and public right to know goals of AB 197 and
15 AB 617 by establishing requirements to support the annual
16 reporting of these air criteria -- excuse me, criteria air
17 pollutant and air toxics emissions data. So it is a step
18 forward in the direction of the kind of system that we're
19 trying to build.

20 I will call now on Mr. Corey to introduce the
21 item.

22 EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

23 And with -- as you noted, with the passage of AB
24 197 and AB 617 the Legislature made it clear the need to
25 collect information on criteria pollutant and air toxics

1 emissions across the state more frequently, transparently,
2 and consistently. One of the main drivers for these bills
3 is to provide communities with actionable information to
4 mitigate emissions and provide better access to detailed
5 emissions data.

6 The requirements under AB 197 call for both
7 stationary and mobile greenhouse gas, criteria pollutant,
8 and air toxics emissions sources to be updated annually.
9 Today's proposed regulation focuses on creating annual
10 reporting requirements for stationary sources to report
11 criteria pollutant and toxic emissions. In order to
12 ensure the effectiveness of the proposed regulation, CARB
13 staff have worked closely with our air district partners,
14 and stakeholders throughout numerous working groups, and
15 have welcomed their participation throughout the
16 rulemaking process.

17 They're engagement, feedback, and prior knowledge
18 of stationary sources has been invaluable. But there's no
19 doubt, there's a tremendous amount of work to be done,
20 which is why the effort must be phased in.

21 I've discussed the workload concerns with the air
22 districts, and most recently with Supervisor Serna, and
23 believe we have a successful path for this comprehensive
24 regulation.

25 I'll now ask Dave Edwards of the Air Quality

1 Planning and Science Division to begin the staff
2 presentation.

3 Dave.

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

6 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Thank
7 you, Mr. Corey. And good morning, Chair Nichols and
8 members of the Board.

9 This Board item is to discuss staff's proposed
10 regulation for the reporting of criteria air pollutants
11 and toxic air contaminants.

12 --o0o--

13 AQPSD ASSISTANT DIVISION CHIEF EDWARDS:

14 Emissions inventory data is an essential
15 component of our work. Inventory data helps us to know
16 what is being emitted into the air, by whom, and where.
17 The data provides the scientific basis for CARB's and the
18 air district's regulatory processes, and allows us to
19 track progress for statewide and regional emission
20 reduction efforts from stationary sources, area sources,
21 and mobile sources.

22 While the regional level inventories that we have
23 today work well for our regional air quality strategies,
24 the new focus on community level air pollution requires a
25 more detailed inventory at the community scale,

1 particularly for sources of criteria pollutants and air
2 toxics for -- from both mobile and stationary sources.

3 Modernization and data display, driven by the
4 need to better support public involvement in air quality
5 issues, and spelled out in the mandates recently passed in
6 AB 197, has led to significant improvements in public
7 accessibility and data transparency for our emissions
8 data.

9 The development of CARB's pollution mapping tool
10 was our first step in providing a straightforward visual
11 representation of criteria pollutant, air toxics, and
12 greenhouse gas emissions in a single location.

13 In addition to its requirements for community
14 emission reduction actions, AB 167 included two
15 substantial inventory-related requirements. The first is
16 to require annual reporting of air toxics reporting -- of
17 criteria and air toxics reporting, and the second is to
18 ensure statewide uniformity in reporting in methods,
19 emission factors, and formats.

20 All of this requires a paradigm shift in how we
21 view inventory emissions. This includes the size of the
22 sources that need to report, more frequent reporting, more
23 detail on location and activity, and finally, how the
24 emissions are quantified. Today's regulation is the start
25 of that.

1 This is a significant paradigm shift, and we will
2 take time and resources to complete. Much of the work for
3 stationary sources will fall to the air districts, while
4 CARB staff are making similar changes for the mobile
5 emission inventory. To support the transition, we are
6 working now to provide reporting tools to a data
7 collection, but we will also need to work with the air
8 districts to find needed resources and look to how to
9 phase in the requirements.

10 --o0o--

11 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Our
12 long-term goal is a complete, detailed, community-scale
13 inventory from all stationary sources statewide.

14 Today's action is a first step toward that goal.
15 This includes the minimum AB 617 requirements. But the
16 level of detail in those requirements are not enough to
17 fully support community-focused programs. So we are also
18 proposing additional data reporting requirements to
19 support community level analyses.

20 As we continue to move forward on this regulation
21 beyond today, we will be adding consistent statewide
22 reporting methods and emission factors, as well as
23 additional sources to support the community-based
24 activities.

25 --o0o--

1 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: So the
2 proposed regulation before you today sets forth the
3 following:

4 First, it requires the annual reporting of
5 emissions of criteria pollutants and precursors, as well
6 as toxic air contaminants from specified large and
7 impactful stationary sources across the state.

8 Second, it establishes uniform and consistent
9 reporting requirements for what type of data must be
10 reported.

11 And third, the proposal requires reporting of
12 information about the facility and its air emission
13 release points.

14 The regulation also gives CARB, at its
15 discretion, the ability to audit or verify the data
16 submitted by a facility under this program. And
17 additionally, we are proposing 15-day changes to improve
18 the uniformity of the data reporting applicability.

19 --o0o--

20 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Here is
21 an overview of some of the main components needed to have
22 a successful reporting program. I will plan to first go
23 over some features in the proposed regulation and then
24 walk through some thoughts on implementation.

25 --o0o--

1 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: The
2 proposed regulation includes four applicability criteria.
3 The first three criteria are the minimum AB 617
4 requirements. The fourth defines the more granular data
5 needed to support community actions.

6 The first applicability criteria includes
7 facilities currently subject to greenhouse gas emissions
8 reporting under the CARB Greenhouse Gas Mandatory
9 Reporting Regulation, or MRR. Under this criteria, about
10 800 to 900 facilities would be subject to annual reporting
11 of criteria and toxics emissions. The reporting
12 requirements do not apply to certain mandatory reporting
13 facilities, such as transportation fuel suppliers, natural
14 gas pipeline distribution networks, or electricity
15 distributors, which do not have specific site or location
16 of emissions.

17 The second applicability category in AB 617
18 includes facilities authorized by a permit issued by an
19 air district to emit 250 or more tons per year of any
20 nonattainment pollutant or its precursors. These
21 emissions include oxides of nitrogen, volatile organic
22 compounds, particulate matter, carbon monoxide, ammonia,
23 et cetera. There are about 40 additional facilities in
24 this category.

25 The third applicability category applies to

1 facilities that received an elevated prioritization score
2 as identified in AB 617. Staff interpret this term to
3 apply to high priority facilities, as designated by air
4 districts under the AB 2588 Toxics Hot Spots Program.

5 Using current data, we are expecting this high
6 priority category to include 500 to 1,000 additional
7 facilities subject to reporting.

8 These first three applicability requirements will
9 bring in about 1,300 to 2,000 sources into annual criteria
10 pollutant and air toxics reporting.

11 The final applicability category, we are
12 proposing a change through a 15-day change process to
13 criteria pollutant and air toxics mass based reporting
14 thresholds, rather than staff's original proposal to
15 require all permitted sources to report.

16 We are also proposing with the 15-day changes to
17 focus more on toxics emissions sources, rather than
18 criteria emission sources. The next slide will explain in
19 more detail the last applicability requirement.

20 --o0o--

21 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Our
22 proposed applicability threshold for criteria pollutants
23 is four tons of a criteria pollutant or their precursor.
24 This level is consistent with the South Coast AQMD's
25 reporting threshold, which is one of the most stringent in

1 the state and would apply statewide.

2 For toxics, we are looking at a multi-year
3 phase-in of an emission-based increasingly tightened
4 threshold of aggregated air toxics emissions. One of the
5 challenges we face is that with the inventory information
6 available today, it is difficult to estimate how
7 precisely -- or sorry, estimate precisely how many
8 facilities will have to report their emissions for a given
9 threshold. A phased approach will allow us to better
10 manage the new workload and to assess the benefit and cost
11 of acquiring lower reporting using the new data from the
12 prior year.

13 A potential concept for a phased approach could
14 be ten pounds per year in the first year, then five pounds
15 per year, and the third year, one pound per year.

16 Additionally, staff is considering specific
17 exceptions to the aggregated thresholds for the most
18 potent toxic compounds. Some examples include a 0.5 pound
19 per year threshold for nickel and cadmium for metal
20 processing facilities, or -- and a 0.005 pound for Chrome
21 VI from any facility.

22 Facilities that emit greater than the reporting
23 thresholds would need to annually report their criteria
24 pollutant and air toxics emissions data.

25 Examples of what type of facilities this approach

1 would add to the inventory are gas stations, auto body
2 shops, and dry cleaners. For example, a ten pound
3 reporting threshold would be the equivalent of a gas
4 station that sells about 200,000 gallons of gas a year.
5 And a one pound toxics threshold would be the equivalent
6 of selling about 20,000 gallons.

7 Another example is an auto body shop, which would
8 need to spray about 25 gallons of paint to reach ten
9 pounds of air toxic emissions.

10 --o0o--

11 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: With
12 regard to the implementation schedule and reporting
13 deadlines, reporting begins statewide for all facilities
14 subject to the first three applicability requirements I
15 described beginning with 2018 data reported in 2019.

16 The reporting threshold applicability
17 requirements that I described on my last slide would apply
18 to all facilities within the six districts that have one
19 of the ten AB 617 communities beginning with 2020 data
20 reported in 2021. These districts include South Coast,
21 Bay Area, San Joaquin Valley, San Diego, Imperial County,
22 and Sacramento.

23 Those threshold-based reporting would then apply
24 to all facilities and all districts statewide beginning
25 with 2021 data reported in 2022. Staff believes it is

1 important to begin data collection as soon as feasible to
2 help support the emission reduction and monitoring
3 programs in AB 617 communities.

4 The proposed regulation requires that facilities
5 that are subject to reporting the emissions for a given
6 calendar year must report the emissions or activity or
7 throughput data sufficient to quantify the emissions to
8 the local air district by May 1st of the following year.

9 In most cases, facilities provide activity data,
10 and the district staff calculate the emissions. The
11 districts would then provide the emissions data to CARB by
12 August 1st of the same year.

13 --o0o--

14 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: As
15 mentioned earlier, a primary goal is to establish
16 statewide consistency in the emissions data that are
17 submitted to CARB and the districts. To accomplish this,
18 the regulation identifies which data are required to be
19 submitted by facilities. The required data helps meet the
20 needs of determining community-level impacts, supporting
21 risk, modeling efforts, providing completeness and clarity
22 in the data methods used, and allowing detailed mapping
23 and graphing of emissions data, with tracking of increases
24 or decreases in emission levels.

25 In terms of what pollutants need to be reported,

1 it is all criteria pollutant emissions, and any toxic air
2 contaminant emissions included in the list of substances
3 in Appendix A-1 of the Air Toxics Hot Spots, Criteria and
4 Guidelines document. This list contains about 450
5 discrete air toxic chemicals.

6 We also have prepared reporting of specific
7 facility location information, including where actual
8 emission releases occur within the facility, which are
9 used for health risk, evaluations, and other analyses.

10 Where feasible, data also must be reported for
11 individual permitted devices or processes to identify
12 specific sources and for evaluating potential emission
13 control options.

14 For transparency and comparability between
15 facilities and regions, we are also requiring that
16 facility operations report which emission estimation
17 methods and emission factors they use, if they are
18 computing the emissions themselves. If the air district
19 computes emissions based on activity, throughput, or other
20 information, the air district will provide the method and
21 emission factor information to CARB.

22 --o0o--

23 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: CARB
24 staff and the local air districts will have a closely
25 aligned partnership in implementing the requirements of

1 the proposed regulation. The air districts have a long
2 history of working directly with their facilities in
3 collecting emissions data. Because of this, all submitted
4 data will continue to be collected and processed through
5 the air districts as it is now, prior to submission to
6 CARB.

7 For this reason, it is necessary that the
8 regulatory requirements be enforceable by both CARB and
9 the local air districts to ensure success of the program.
10 As with all programs, we understand that there are growing
11 pains in the initial years. Staff plan to take that into
12 account during the full implementation process.

13 --o0o--

14 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: For
15 efficiency, transparency, and accuracy, we need to
16 transition to reporting data in electronic formats, using
17 web-based online data systems. To facilitate this,
18 beginning with 2020 data submitted in 2021, CARB will
19 provide a new electronic data system to help facilitate
20 consistent emissions data reporting. The new inventory
21 submittal system is being designed and built now, and will
22 allow substantial air district involvement and control
23 over the submitted facility data, so the districts can
24 continue their critical role ensuring the quality,
25 completeness, and accuracy of the submitted data. We have

1 also provided district flexibility to deal with special
2 cases, when it is impractical or inefficient to use
3 electronic data reporting.

4 --o0o--

5 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: An
6 additional requirement from AB 617 is to establish a
7 uniform statewide system of annual reporting of emissions.
8 To create this consistency and comparability, CARB staff
9 will work with the air districts to develop uniform
10 emission estimation methods for primary industry sectors,
11 which will allow direct comparisons between similar
12 sources throughout the state.

13 In addition, we will coordinate with the air
14 districts to engage with industry, academia, and other
15 interested parties to ensure the methods are relevant and
16 up-to-date. Staff will plan to develop the methods using
17 a sector-by-sector approach. Two of the first to tackle
18 are the refineries and power plants.

19 --o0o--

20 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: As part
21 of our initial public process, we received many comments
22 on the proposed conceptual requirements for the reporting
23 regulation. The current proposed regulation includes
24 content that addresses many of the comments received after
25 the earlier public workshops. During the official 45-day

1 comment period, we also received 18 written comment
2 letters from various stakeholder groups.

3 In response, the primary proposed changes are the
4 reporting applicability changes I described earlier. We
5 also plan to remove the language regarding a potential
6 five year sunset of annual reporting at the Executive
7 Officer's discretion. This language was tied to the
8 original community boundary language and will not be
9 needed with the threshold applicability approach.

10 --o0o--

11 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: This
12 slide is titled future implementation steps. Perhaps, it
13 would be better titled future, or additional actions
14 needed, for implementation of the regulation itself.

15 First, is the development of the uniform
16 statewide emission estimation protocols for key industry
17 sectors that I just mentioned, so that the reported data
18 will be comparable between similar facilities and between
19 air district jurisdictions.

20 Second, CARB staff understands that expanding the
21 scope of the facilities that report emissions data
22 presents a financial resource issues. Compiling,
23 quantifying, and reporting emissions data in conformance
24 with a uniform system will require additional resources
25 beyond current practices.

1 Staff are also working to update the toxics list
2 referenced in the proposed regulation. This update is
3 much needed as an exhaustive update to this list has not
4 occurred in over 20 years.

5 Lastly, we will need a process to identify and
6 bring into reporting sources of interest identified
7 through the AB 617 community emission reduction program
8 development in the selected communities.

9 --o0o--

10 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: By
11 approving today's proposed regulation, we are taking a
12 large step forward towards developing a comprehensive
13 facility-focused emission inventory, improving access to
14 data, particularly through the CARB pollution mapping
15 tool, and refining our analysis to support emission
16 reductions across the state.

17 --o0o--

18 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: The
19 proposed action will significantly benefit the AB 197 data
20 accessibility goals. The public access to emissions data
21 will be improved by expanding coverage to more facilities.
22 It will provide data for smaller facilities that are
23 currently not available. And the data would be more
24 consistent and comparable over time.

25 The mapping tool is already available to the

1 public, but the proposed regulation will allow the
2 addition of more consistent, comprehensive, and timely
3 emissions data to the tool.

4 --o0o--

5 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: I wanted
6 to spend the last part of the presentation to go over
7 example types of analyses this improved, comprehensive,
8 and facility-focused reporting program will allow us to
9 do.

10 The first example is about assessing exposures.
11 With our existing emission inventories, we are able to
12 answer questions regarding which are the most important
13 source categories, and the most important toxic pollutants
14 on a county-by-county basis, and what are the relative
15 contributions of mobile versus stationary sources, and how
16 much do the aggregated minor -- aggregated minor sources
17 contribute in each county and air basin.

18 In cases where facility data is not reported
19 regularly, data is carried over from prior years to
20 provide an estimate. Many of the small neighborhood and
21 commercial sources, such as gas stations, auto body shops,
22 dry cleaners, and print shops are generally estimated
23 using top-down methods. And they are aggregated as county
24 level totals of emissions.

25 With this enhanced data, new analysis will cover

1 a much more comprehensive universe of not only the large
2 industrial sources, but also the individual and combined
3 effects of the numerous individual small sources, such as
4 these small commercial source categories.

5 Importantly, rather than the emissions from small
6 sources being lumped into a countywide total, the
7 emissions will be tied to a specific location within a
8 community and included into the CARB pollution mapping
9 tool.

10 --o0o--

11 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: This
12 slides illustrates this last point. This slide shows the
13 West Oakland area, and on the left with just the
14 traditional stationary sources currently reported in the
15 CEIDARS inventory, and on the right with locations of
16 smaller sources, including gas stations, dry cleaners,
17 print shops, and auto body shops, which would previously
18 be treated in a county total aggregate for each of these
19 categories, but will now be addressed as individual
20 sources through the community inventory process.

21 --o0o--

22 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Current
23 reporting cycles of every couple of years provide broad
24 general trends for the large traditional facilities for
25 purposes of regional air quality. We are able to track

1 regional air quality progress through the State
2 Implementation Plans, as well as support SIP trends and
3 projections.

4 In addition, today when we com -- we compare
5 similar-sized sources in a given category, we may ask why
6 the emissions from Facility A are different from Facility
7 B, and ask: Are the methods similar? Are similar
8 chemicals covered? Are their processes different?

9 In the future, we will have explicit annual data
10 for a broader universe of sources to explicitly track
11 trends both collectively and individually at community
12 specific resolution for criteria pollutants and air
13 toxics.

14 In our enhanced future analysis, we will be able
15 to ask, given that they are using consistent methodologies
16 and uniform reporting, what can we learn about:

17 Which processes are more efficient?

18 Which control technologies are more effective?

19 Which facility provides the best benchmark for
20 others to follow?

21 And, compiling these data into a modern,
22 comprehensive clearinghouse of comparable emission factors
23 and chemical profiles will support greater transferability
24 of source test information, chemical profiles, and
25 process-specific emission factors.

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AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Current analysis of the overall health -- of the overall exposure and health impacts of toxic sources has generally been a sector-based analysis, and we often must rely on other agencies' analysis, such as the U.S. EPA's National Air Toxics Assessment.

The regional air quality data also can be used to support estimates for PM mortality on a broad scale. In the future, the comprehensive annual data will support CARB's own modeling of spatially resolved facility-specific exposure and health impacts to address the combined or cumulative impacts of toxics on the community.

--o0o--

AQPSD ASSISTANT DIVISION CHIEF EDWARDS: For my last example, today's analysis that is used for emission reduction strategies is based primarily on statewide, countywide, with some regional data specificity.

However, many communities have unique characteristics and impacts, such as with regard to freight sources, distribution centers, truck idling, last-mile delivery, and clusters of small facilities. In the future, we will be able to evaluate local emission contributions and develop community-specific emission

1 reduction strategies tailored to the unique needs of each
2 community.

3 In addition, the more detailed future reporting
4 will ensure a more comprehensive universe of sources is
5 covered to enhance the process of identifying and
6 selecting future communities.

7 --o0o--

8 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: That
9 completes our presentation. Our recommendation is to
10 approve the proposed resolution, which includes adoption
11 of the final regulation order. The proposed resolution
12 also directs the Executive Officer to finalize the Final
13 Statement of Reasons and submit the completed regulatory
14 package to the Office of Administrative Law.

15 In light of the nature of the proposed 15-day
16 changes, we do anticipate holding additional workshops
17 prior to posting revised regulatory text to discuss the
18 concepts we have presented here today, especially the
19 applicability criteria.

20 Finally, as we have said throughout the
21 presentation today, we are committed to work with the air
22 districts to find the necessary funding that is needed to
23 compile the inventory and support community-focused action
24 to improve air quality.

25 Thank you

1 CHAIR NICHOLS: Thank you. I just want to
2 clarify if we act today to adopt this resolution, what
3 exactly happens next?

4 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: So what
5 we're planning to do is to develop the proposed 15-day
6 changes, and share those through a workshop process and
7 get some informal comments before we put it out for the
8 official 15-day comment period, because this applicability
9 change is a -- is a fairly substantial change from what
10 was originally in the regulation.

11 CHAIR NICHOLS: Right.

12 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: So we're
13 looking at an extended -- in a sense, an extended 15-day
14 process that will last more than 15 days.

15 CHAIR NICHOLS: More than 15 days.

16 (Laughter.)

17 CHAIR NICHOLS: That's fine. I think that's a --
18 It think that's a -- it's a good process. I just wanted
19 to be sure that I understand and the rest of the Board
20 did.

21 Yes, Supervisor Serna.

22 BOARD MEMBER SERNA: Yeah. If I can just put a
23 finer point on that, and that would include immediate
24 outreach to CAPCOA, I would assume?

25 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Yes.

1 BOARD MEMBER SERNA: Okay. Thank you.

2 CHAIR NICHOLS: Good. Thank you.

3 Okay. Well, we have a list of witnesses here, so
4 we might as well get started with Alberto Ayala.

5 BOARD MEMBER EISENHUT: A quick a question.

6 CHAIR NICHOLS: Yes. Yes, while he's coming
7 forward.

8 BOARD MEMBER EISENHUT: I think your term was
9 "precursor" -- an inventory of precursor materials, and is
10 ammonia considered one of those materials?

11 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Ammonia
12 is actually considered a criteria pollutant and an air
13 toxic. For purposes of that 250 ton, the -- or the Title
14 5 applicability that was in AB 617, that does include
15 ammonia. For the thresholds applicability moving forward,
16 there will be discussions as to whether include ammonia as
17 the criteria or an air toxic.

18 BOARD MEMBER EISENHUT: Okay. Thank you.

19 CHAIR NICHOLS: Okay.

20 DR. AYALA: Thank you. I should know how to do
21 this, right?

22 CHAIR NICHOLS: You know, I should be giving
23 instructions.

24 (Laughter.)

25 CHAIR NICHOLS: You can raise it up. You can

1 lower it down with a knob on the side. And you're
2 supposed to be just about a hand's width away from the --
3 from there. Yeah, perfect.

4 DR. AYALA: I can do that. I'm an engineer.

5 (Laughter.)

6 DR. AYALA: Good morning, Board. Alberto Ayala
7 with the Sacramento Metro Air Quality Management District.
8 Thank you for giving us the opportunity to be here today.
9 I want to keep my remarks brief, because much of what we
10 had expressed initially to your staff, and to some of you
11 as a concern is moving in the right direction that we
12 would like to see it.

13 And first of all, I want to acknowledge
14 Supervisor Serna who obviously sits on our board, and is
15 representative of not only the Sacramento Air District,
16 but I think I can speak on behalf of the other four
17 surrounding districts, Placer, Yolo/Solano, Feather River
18 and El Dorado, who collectively make up the federal
19 nonattainment area in Sacramento. So a lot of the air
20 quality planning we do in -- as a team.

21 And I want to keep my remarks to two areas, just
22 to put a finer point for you. One is process and
23 resources.

24 First on process, as Dr. Edwards just said, some
25 of the changes that you're contemplating are substantial.

1 And I understand that sometimes you, the Board, is under
2 pressure to move quickly. Many of the most significant
3 changes that you just heard about, we also learned just on
4 Monday. So my appeal to you is we do need to allow
5 ourselves for a process where we, the districts, can work
6 with ARB staff to make sure that we're understanding how
7 we are going to tackle this new direction that you want to
8 go into.

9 Again, I appreciate and acknowledge the fact that
10 there's been a recognition to include the districts in the
11 discussion. We are ready to engage, and to be part of the
12 solution.

13 The second thing I want to emphasize for you is
14 the issue of resources. And the point I want to make to
15 you is you may be under the impression that the State has
16 already committed resources for the districts, and that is
17 true. We very much appreciate that. But the commitment
18 for the districts for implementation of AB 617 is short
19 lived. It's finite. To date, there's only a commitment
20 for two years. And most importantly, some of the changes
21 that you're contemplating today go well beyond the
22 resources that have been allocated by the state for the
23 air districts.

24 So again, I just want to make sure that you
25 understand some of the nuances that go into a greater

1 level of detail than what you're contemplating today.

2 Again, we want to work with you. We want to be
3 part of the solution. We very much appreciate you taking
4 the time to listen to us. But I do need you to be mindful
5 that we districts do have constraints that go above and
6 beyond what may be perceived by you as an ARB Board.

7 So thank you.

8 CHAIR NICHOLS: Thank you.

9 Mr. DeGuzman.

10 MR. DeGUZMAN: Good morning, Board. I'm Jorge
11 DeGuzman with the Sacramento Air Quality Management
12 District. And one of the concerns that I have - I manage
13 the permitting section, and I've been in charge of the
14 toxics program at the district for many years - is that
15 over the years for probably at least 30 years, the
16 district and all the districts in California have had a
17 toxics emissions inventory as well as a criteria emissions
18 inventory.

19 Back in '87, it was recognized that we needed
20 more information about toxics, many of the same concerns
21 that I have heard here today. And California enacted the
22 Air Toxics Hot Spots Information and Assessment Act of
23 1987. In that Act, it requires the districts to inventory
24 toxic emissions throughout the district. And this is not
25 a regional assessment. This is a facility-by-facility

1 assessment of risks. And it calls for any source that
2 emits more than ten tons per year of criteria pollutants,
3 and then it directed CARB to identify smaller sources that
4 could have the potential to have a health impact in the
5 communities.

6 So CARB came together with a list that eventually
7 became known as Appendix E to the regulation, that
8 addresses all the types of facilities that are smaller
9 than ten tons that could potentially have a health impact.

10 And we have been regulating these facilities for
11 over 30 years, and we have found that many of those
12 facilities that wanted to fall towards the lower end of
13 the spectrum there have emissions that are really
14 insignificant.

15 So one idea that I have is we really -- this is a
16 perfect opportunity to combine all three inventories. We
17 already have two. Now, we're talking about creating a
18 third inventory. That's a lot of resources, expenses, and
19 confusion for the districts, as well as the community and
20 the facilities.

21 This is a perfect opportunity to combine all
22 three inventories into one, and make it very clear to
23 everybody who needs to report and what. And we can amend
24 the existing 25 inventory if necessary to bring in any
25 criteria pollutants that need to be added or any toxics or

1 any facilities that CARB feels that should be included in
2 this new toxics inventory.

3 That's all I have. Thank you.

4 CHAIR NICHOLS: Thank you.

5 Thank you. Mr. Broadbent.

6 MR. BROADBENT: Good morning, Madam Chair,
7 members of the Board. My name is Jack Broadbent. I'm the
8 Executive Officer for the Bay Area Air Quality Management
9 District. And on behalf of the air district, we want to
10 thank the California Air Resources Board for providing
11 this opportunity to provide comments on the proposed
12 regulation for reporting of the emissions of criteria and
13 toxic air contaminants, and very much appreciate the close
14 working relationship with the staff, between the Bay Area
15 and CARB.

16 We're in support of the proposal with just some
17 clarifications a little bit on some key issues. So I want
18 to just make a few points here at the very beginning.
19 First, since the air districts have literally decades of
20 experience in regulating stationary sources, we strongly
21 support the principle that the air districts retain the
22 function of having the facilities report the criteria and
23 the toxic air contaminants directly to us.

24 This principle kind of lining up with our
25 enforcement capabilities really, I believe, is going to be

1 critical to ensure accurate emissions reporting.

2 Secondly, we also support the goal of developing
3 an emissions -- a uniform statewide emissions reporting
4 system. We just think that maybe the agency needs a
5 little bit more time to revise our business processes, so
6 that we can report all of our facility emissions by August
7 1st. I think this is something we can work through in the
8 15-day process that the staff described.

9 Third, we also strongly agree that the local air
10 districts and CARB need to work together to develop the
11 best and most accurate emission methods for calculating
12 emissions. We look forward to the detailed technical
13 discussions that was outlined by your staff to ensure that
14 there's some consistent reporting, and there's a high
15 accuracy of emissions estimates. We think that's going to
16 be very critical for 617 implementation.

17 I'm going to ask, if you don't mind, just real
18 briefly to have Greg Nudd of my staff describe the
19 clarification we need relative to the 617, and the
20 explicit thresholds, Madam Chair. There's this connection
21 here that we just want a little bit of a clarification on.
22 I've asked Greg --

23 CHAIR NICHOLS: Sure. Go ahead.

24 MR. NUDD: Thank you, Madam Chair. My name is
25 Greg Nudd. I'm the Deputy Executive Officer for Policy in

1 charge of AB 617 implementation in the Bay Area.

2 We are, as Jack said, very supportive of this
3 rule, but we have some concerns about the explicit
4 thresholds that CARB was talking about today. As we do
5 our detailed community-based inventories for AB 617, we're
6 finding that it's difficult to take particular thresholds
7 in order to determine what's going to be impactful at a
8 local scale. And we want to be careful in how we design
9 this, so we don't end up with results that don't make
10 sense.

11 There was some discussion earlier about whether
12 ammonia is a TAC or criteria pollutant. Just to give you
13 a little bit of perspective, every bottle of Windex is
14 about 1/5th of a pound of ammonia. So you start talking
15 about a pound of ammonia -- a pound of TACs per year, you
16 get in a situation where you're chasing really small
17 sources, rather than focusing your resources on those,
18 that are most impactful for the community. So we look
19 forward to working with CARB, with representatives from
20 the communities, and representatives from industry on this
21 15-day process to come up with a way to rationally
22 prioritize the tracking and reporting of these facilities
23 that are maybe impactful in local communities.

24 Thank you.

25 CHAIR NICHOLS: Thank you.

1 MR. BROADBENT: So Madam Chair, your next person
2 is Alan Abbs, who is currently is a CAPCOA employee, soon
3 to be a Bay Area employee, so --

4 (Laughter.)

5 BOARD MEMBER BALMES: Good catch.

6 BOARD MEMBER TAKVORIAN: Can I -- Chair? Chair
7 Nichols?

8 CHAIR NICHOLS: I'm sorry. You've got too much
9 time allocated to one district. Sorry.

10 (Laughter.)

11 BOARD MEMBER TAKVORIAN: Could I just ask a --
12 maybe a dumb question. I don't know. Are consumer
13 products included in this rule?

14 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: No.

15 BOARD MEMBER TAKVORIAN: Okay. So Windex is not
16 a worry, right?

17 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: No.

18 BOARD MEMBER TAKVORIAN: Okay. I just want to
19 get clear, because I thought it was about permitted
20 facilities. Okay. Thank you.

21 CHAIR NICHOLS: Good clarification.

22 CAPCOA EXECUTIVE DIRECTOR ABBS: Good morning,
23 Madam Chair and members of the Board. My name is Alan
24 Abbs. I'm the Executive Director for the California Air
25 Pollution Control Officers Association. I'm here to

1 express support for the presentation by staff today. And
2 I'd also like to acknowledge the work that Dave Edwards
3 and his staff have done in traveling around the State and
4 meeting the air districts in their air district offices
5 and I believe Dave has been to all 35 air districts where
6 they reside and do their work. And so I think -- you
7 know, I should probably give him an award for that some
8 day.

9 (Laughter.)

10 CAPCOA EXECUTIVE DIRECTOR ABBS: The -- so
11 CAPCOA, we support the concept of the visualization tool
12 showing the emissions that people in their community want
13 to see or -- you know, want to see, you know,
14 transparently what's being emitted in their communities.
15 And at the same time, we want this tool to be meaningful
16 and impactful. And as staff mentioned, there are some
17 business processes at the district, and some -- when you
18 talk about differing thresholds that really ramp up fast
19 the number of facilities, and the amount of district work
20 it would take to populate the tool and provide this data.

21 And so we're looking forward to participating
22 with CARB and other stakeholders in this 15-day comment
23 period to figure out the appropriate phase-in time periods
24 to do this, as well as the resources that the districts
25 would need to be able to get this done and meet those

1 timelines.

2 And so with that, we've had a great working
3 relationship with CARB in the past, and I know we're going
4 to be able to do it in the future, even through I might
5 not be around to be part of that. I have confidence that
6 we're going to be able to figure this out during the
7 15-day comment period.

8 Thank you.

9 CHAIR NICHOLS: Thank you.

10 Just a reminder that both podiums do work, in
11 case you wish to use the other.

12 DR. FINE: I'm just getting exercise. I've been
13 sitting here a long time.

14 (Laughter.)

15 DR. FINE: My name is Philip Fine. I'm a Deputy
16 Executive Officer at the South Coast Air Quality
17 Management District. And the AQMD staff strongly supports
18 the goal of not just the Legislature and the CARB staff,
19 but also most of the stakeholders of making more accurate,
20 consistent, detailed facility-level emissions data
21 available to the public, accessible to the public for both
22 criteria pollutants and toxics.

23 Not only will this increase transparency and
24 accountability. It will aid in the implementation of many
25 other planning and regulatory programs, including AB 617.

1 We all recognize how AB 617 is a fundamental
2 reshaping of how air quality is addressed by air districts
3 and CARB. And this is the first major regulation that
4 CARB is undertaking as part of that. And we really
5 appreciate CARB staff in recognizing the effect this
6 regulation will have on our programs. And we appreciate
7 their ongoing willingness to work with us to ensure
8 successful development and implementation of this reg.

9 So staff, over the process of the last many
10 months, has expressed some concerns over -- over some
11 aspects. We had issues with the quote redlining of AB 617
12 communities with potentially different requirements for
13 facilities that might be on different sides of an
14 arbitrary boundary, like a street. We had some concerns
15 with equity issues, since different districts have
16 different permitting requirements and thresholds. If, in
17 fact, permit -- a permitted source could be very different
18 from one district to another.

19 Concerns on resource requirements for potentially
20 little gain if the smallest facility is needed to
21 calculate and report emissions that ended up to be
22 insignificant or negligible.

23 We suggested the need for flexibility for other
24 potentially more accurate methods of calculating
25 facilities level emissions, other than strict

1 self-reporting of emissions themselves. And then we
2 expressed the need for outreach and training for some
3 facilities that may not even know they emit toxic air
4 contaminants, or at least a level that would require
5 reporting.

6 But over many months of rule development, and
7 including all the staff recommendations being made today,
8 AQMD staff believes the regulation is workable and can
9 support the path forward as outlined by staff.

10 Implementation will be very resource intensive.
11 It will require considerable software improvements, rule
12 development at the district level, technical work on
13 emissions estimation, and most importantly outreach to
14 those smaller facilities.

15 And we're committed to work with CARB and the
16 other air districts to find sources of funding and other
17 cost recovery methods.

18 There are still some remaining issue, and I won't
19 go into details, because they've been mentioned by the
20 previous speakers. But we really support a closer look at
21 individual toxics air contaminants based on risk and
22 potency to avoid unintended consequences, and to focus our
23 limited resources on what's important.

24 We're also -- the implementation time frames are
25 extremely aggressive. For instance, if data for that

1 fourth category is going to be reported in 2021 for
2 emissions in 2020, that's a very small amount of time for
3 those facilities to be able to keep the records they need
4 in order to do that.

5 So all in all, overall this is a good first step.
6 But getting the details right in implementation is
7 critical. And we look forward to working with CARB staff
8 as this moves forward.

9 Thank you.

10 VICE CHAIR BERG: Thank you very much, Mr. Fine.
11 I do have a question for you. Help me understand on the
12 current 25 -- AB 2588. We have been publishing and it
13 is -- citizens can look up facilities and what is being
14 emitted now under that regulation, is that correct?

15 DR. FINE: I can speak for South Coast.

16 VICE CHAIR BERG: Yeah, South Coast. Thank you.

17 DR. FINE: So for South Coast, that's correct.

18 We have an emissions reporting program. And facility that
19 emits over four tons per year of criteria pollutants is in
20 that system. It's available on the website. Could that
21 interface be improved? Absolutely.

22 And then facilities in that program that are also
23 required to report their toxics. This would bring in more
24 facilities that perhaps emit toxics, but don't hit that
25 four ton per year threshold.

1 VICE CHAIR BERG: So I'm very much in favor for
2 this regulation and the improvement and everything. I'm
3 very concerned -- and I'll talk more with staff about this
4 in my follow-up questions. The perception of how this
5 is -- what we're going into is how is this going to
6 increase transparency? And what accountability are we
7 talked about? I'm just very concerned. This is a very
8 large regulation, which we need. But what's our goal and
9 how do you see this really happening to become more
10 transparent and more accountable? Can you help me on
11 that?

12 DR. FINE: Well, from -- again, from my
13 perspective, or the South Coast's perspective, I think on
14 transparency we do have all this emissions data. It is
15 available on our website. It is transmitted to CARB.
16 There are various ways to access that data. Is it easy to
17 access? Is it easy to understand? Is it consistent
18 across different air districts? There's a lot of work to
19 be done there.

20 So I think transparency can be improved there.
21 And definitely accountability. We are often challenged
22 that when we go into a community or have a town hall
23 meeting, like how do you know the missions are what you
24 say they are?

25 And if we can -- if we can show that we have a

1 system, methods, and make all those methods and procedures
2 open to the public, more transparent to the public, then
3 that leads to accountability.

4 VICE CHAIR BERG: And you feel you don't have
5 that under 2588?

6 DR. FINE: We do. The emissions are there. You
7 know, we have guidelines for how to report those
8 emissions. It's all available. It's just not easily
9 accessible by the man on the street.

10 VICE CHAIR BERG: Okay. Great. Thank you for
11 helping.

12 MS. CREMERS: Good afternoon. Noelle Cremers
13 with the California Farm Bureau Federation. I appreciate
14 the opportunity to comment this morning on staff's
15 presentation, and really appreciate that there will be
16 more time to discuss the potential impacts that this
17 regulation will have on our members going forward through
18 the 15-day comment period.

19 I did want to talk about some of the potential
20 impacts that we have concerns with in the regulation.
21 This is going to be a new day. This is much beyond what
22 we expected when AB 617 was being passed. We were not
23 expecting a statewide regulation that could potentially
24 require reporting from farms throughout the state.

25 So we would really like to focus on reporting

1 from the highest priority locations, those that are
2 identified through the AB 617 community selection process.
3 So we're getting the data from those facilities in the
4 areas that are highest priority, rather than asking for
5 folks outside of those areas to be reporting when it
6 may -- those resources could be better spent in other
7 ways.

8 So one clarification that we would request is --
9 and now this changes with the potential 15-day notice, but
10 that fugitive emissions not be included in the counting
11 whether or not some is subject to the rule. Right now,
12 certainly, we could have farms brought in and required to
13 be reported, if that -- if fugitive emissions are included
14 in that count.

15 Because, especially we'd much rather see limited
16 resources focus on addressing those fugitive emissions,
17 which is happening in the valley, rather than being
18 focused on reporting.

19 We would ask that current systems in place be
20 utilized for those facilities subject to reporting, so
21 that they can use the current systems rather than creating
22 new pieces.

23 Finally, we would like clarification on the
24 enforcement piece. Right now, the regulation seems to
25 allow enforcement at both the State and air district

1 level. And we don't think that it would be appropriate
2 for a facility that has a fine placed on it by the State
3 to then also be fined by the district. We think it's
4 appropriate for either one to be able to, but don't allow
5 both. So have the State and district work together.

6 And we think this especially important, because
7 it appears that the regulation -- the goal is to require
8 reporting of emissions prior to the implementation of
9 the -- and the effective date of the regulation, which
10 could be challenging for some facilities that may not have
11 all that data available, and didn't know that they needed
12 to be collecting it.

13 So, to us, it makes more sense to have when it
14 takes effect that that -- from that point on is when
15 you're reporting.

16 Thank you.

17 MR. MAGAVERN: Bill Magavern with the Coalition
18 for Clean Air. And the Environmental Defense Fund could
19 not be here today, but asked me to say that they also
20 agree with our position.

21 There's an axiom that you cannot manage what you
22 do not measure. And that is definitely true when it comes
23 to air pollution. So we see this emissions reporting
24 improvement as being essential to the successful
25 implementation of AB 617 and AB 197.

1 And I want to thank Assembly Member Garcia for
2 his authorship. I think that those pieces of legislation
3 reflect an acknowledgement in the Legislature that air
4 pollution at the community level is not being sufficiently
5 addressed. And so people in the communities are asking,
6 tell us what are the sources of pollution and then reduce
7 that pollution and do it very soon.

8 So I think we have to recognize that the status
9 quo is not working. And I think that CARB has recognized
10 that in undertaking this rulemaking. We need reporting
11 from all sources, and we need that every year. I know
12 that when you talk about small amounts like a pound, that
13 sounds like it couldn't be a lot of pollution.

14 But actually when we're talking about persistent
15 bioaccumulative toxins, a pound actually is a lot, and
16 we're talking here about a reporting limit, not a
17 regulatory limit. So we would argue that for those
18 persistent bioaccumulative toxins, anything that can be
19 detected should be reported.

20 And we also need to cover all the sources of
21 pollution. And so it's not just the big ones that you see
22 the big smokestacks, that includes neighborhood sources,
23 like chrome platers. I know having been active in my own
24 neighborhood association in a disadvantaged community,
25 people really do want to know what's being emitted from

1 those sources.

2 That also would include pesticides. And with the
3 growing body of science about toxic effect of pesticides
4 emitted into the air, we want to include those. And I
5 will endorse in advance comments that you'll hear later
6 from Anne Katten.

7 When it comes to resources, we agree with the
8 direction to staff to minimize the workload. New
9 technology might make it possible to reduce those burdens.
10 And we also agree with the need to have a dedicated source
11 of funding. And it probably shouldn't only come from the
12 Greenhouse Gas Reduction Fund. Let's find a dedicated
13 source.

14 So we think there's an urgency to this, because
15 we've got the 617 plans that we need to get underway, so
16 we need to find out what all the emissions are. So we ask
17 you not to delay. We agree with the importance of the
18 15-day process, and we'll participate in that. We think
19 this is a good first step, and there's a lot more to do.

20 MR. BROWN: Good afternoon, members. Bob Brown
21 with the Western States Petroleum Association, Bay Area
22 director. I'd like to thank you for the opportunity to
23 address you here today. And I'd like to start by saying
24 that WSPA continues to support the successful
25 implementation of AB 617. And this regulation is a

1 critical component to that success.

2 And we also greatly appreciate the collaborative
3 manner in which CARB has gone about this rulemaking
4 effort. And hats off to our Bay Area Air District as well
5 for the collaboration, the many community meetings, and
6 the hard work that both entities have put into hearing
7 concerns and input on this.

8 We recently submitted a letter, December 10th,
9 and I just wanted to highlight a few elements from that
10 letter here today. The revised definition of best
11 available data and methods is certainly concerning to
12 WSPA, as it -- as changes to the definition appear to
13 limit an owner or operator's ability to apply best
14 available data and methods without prior approval by the
15 air district or CARB. We recommend that the staff retain
16 the existing language that references facility determined
17 factors and methods.

18 And in addition, we support an open and
19 transparent discussion during the anticipate methods
20 development process.

21 And with respect to the emission reporting
22 requirements, WSPA strongly recommends that CARB consider
23 a first-year reporting deadline of July 1st, rather than
24 May 1st and/or adjust for the local district's timelines
25 as well.

1 And finally, we support the direction of the
2 15-day changes identified by staff today, particularly as
3 they apply to the first two years of the program.
4 Consistency with commitment made during the stakeholder
5 process is the key to establishing trust in that process.
6 And these changes reflect that consistency.

7 Thank you again for the opportunity to address
8 you today, an Happy Holidays.

9 MR. QUINN: Good afternoon, Vice Chair Berg and
10 members of the Board. My name is Bill Quinn. I'm with
11 CCEEB, the California Council for Environmental and
12 Economic Balance.

13 We want to start by thanking David Edwards and
14 John Swanson and their team at CARB. The rule -- this
15 rule establishes a major new program for CARB. And
16 they've made real progress toward working to understand
17 the technical complexity involved in aligning the State
18 program with reporting at 35 air districts.

19 While CCEEB supports the general framework, we
20 offer these comments to highlight that -- the needs that
21 still need to be done. The single most important issue is
22 coordination with the air districts. They must have time
23 to update reporting schedules and practices, according to
24 what this Board seeks to adopt today.

25 Unless that time is provided, thousands of

1 facilities will be in immediate compliance jeopardy as of
2 May 1st of this next year. So through no fault of their
3 own, again there can be compliance issues if we don't have
4 this alignment worked out.

5 We ask that the Board work the -- direct staff to
6 work with CAPCOA and stakeholders. We hear a lot about
7 working with CAPCOA. We completely agree with that, but
8 all stakeholders need to be at the table. We need again
9 enough time for the district propose -- the staff proposal
10 to be in alignment with the air districts.

11 Separately, CCEEB continues to evaluate the
12 inclusion of all permitted facilities. We note this
13 category goes beyond AB 617 and significantly expands
14 CARB's authority. These minor sources include things
15 likely emergency -- emergency back-up generators in
16 commercial buildings, hospitals and hotels, small boilers
17 in laundries and dry cleaners, commercial cooking
18 equipment, and agricultural equipment.

19 Emissions from these sources are currently
20 characterized through modeling, meaning all Clean Air Act
21 inventory requirements. So new community monitoring will
22 help validate and improve these models.

23 At a minimum, we ask CARB to engage with these
24 facilities, particularly small businesses and essential
25 public services. We ask the Board to carefully consider

1 what needs to be reported versus what can accurate be
2 monitored and modeled.

3 So again, thank you for your time and we look
4 forward to working with CARB, CAPCOA, and the air
5 districts to get a consistent statewide reporting process.

6 Thank you.

7 CHAIR NICHOLS: Thank you, Mr. Quinn.

8 MS. KATTEN: Good afternoon, Chair Nichols and
9 Board members. I'm Anne Katten from the farm worker
10 advocacy organization California Rural Legal Assistance
11 Foundation. And I'm here also representing Californians
12 for Pesticide Reform, a coalition of over 190
13 organizations working to reduce pesticide exposure in
14 rural communities.

15 We appreciate greatly the work of the Board and
16 staff in developing this regulation. And in recognizing
17 in the regulatory notice that pesticide use is a source of
18 toxic air contamination that impacts the air quality in
19 many communities.

20 As you're working on the 15-day revisions, we do
21 ask you to include pesticides and possibly fertilizer
22 emissions in the reporting.

23 We also think you might need to broaden -- either
24 broaden the definition of stationary sources to include
25 commodity fumigation facilities and agricultural fields,

1 or include them in the community inventory.

2 The most heavily and highly toxic volatile
3 pesticides used in California are soil and commodity
4 fumigants, all of which are either carcinogens,
5 reproductive toxins, and/or very potent respiratory
6 irritants.

7 More than forty million pounds of fumigants are
8 applied on California fields every year, with -- and this
9 use is concentrated on the Central and South Coast and
10 certain parts of the Central Valley.

11 Emissions, at least to start, could be estimated
12 from the pesticide use reports that are already required
13 comprehensively for ag and commodity fumigation use. And
14 the Department of pesticide regulation has emissions data
15 that could be used to help estimate it. I'm certainly
16 more -- monitoring is also needed, and we appreciate that
17 some has been funded under the program.

18 It's also -- we also think that the estimation
19 should go beyond fumigants to other high toxicity
20 pesticides, including, but not limited to,
21 organophosphates.

22 Ammonia and other fertilizers are also quite
23 toxic, and significant source of greenhouse gas emissions
24 and NOx. And so we urge you to consider them also. And
25 just in closing, you know, we urge you to develop a plan

1 to incorporate these emissions into your reporting plans.

2 Thank you.

3 DR. KYLE: Hello. My name is Amy Kyle. And I
4 don't have an affiliation right now because I'm retired
5 from active paid employment, but -- and I'm working on
6 this issue in conjunction with a number of groups as a
7 volunteer. But I'm speaking for myself here today. And I
8 had a academic career at UC Berkeley. And before that, a
9 career in environmental protection at another state.

10 So -- and the area of my work is the relationship
11 between science and policy, and how we can advance that.
12 So that's -- you know, I'm not a regular here, so --

13 (Laughter.)

14 DR. KYLE: -- I thought you might need to know
15 who is that. She doesn't have a thing up here.

16 (Laughter.)

17 DR. KYLE: So I want to say, first of all, we've
18 entered a real new world when we start to talk about
19 community-scale pollution, and how we look at that. It's
20 very pertinent to discussions of environmental justice,
21 because a lot of the higher burdens of pollution are at
22 the community level.

23 And so we do need different tools, and data, and
24 ways of thinking about these issues that are different,
25 even from what we have in the Hot Spots Program, which

1 was -- didn't consider cumulative impacts. You know, it
2 looked at individual facilities, but there's not a
3 provision to look across the various sources.

4 And I wanted to add my thanks to Dave and his
5 staff for all the many conversations we've had about this
6 over the last year; and also remind you of the map that he
7 showed you about when we look at the community level and
8 we see the co-location of sources, the proximity of
9 sources. When you just see the locations, it can suggest
10 that there are probably places where there's too much even
11 though no one of them is very big.

12 And that's what we're talking about learning to
13 recognize and address. And a lot of communities want to
14 do this. They know that they have sources in their
15 communities that affect them, and they're looking for
16 action on that, and that's what's behind a lot of the
17 legislation that I thought was very ably referenced in the
18 resolution actually. It gives a really nice summary of
19 all the threads of legislation that support this.

20 But it's why we're thinking different, you know,
21 why this is not just about finding the biggest sources.
22 It's not about that. It's partly that, but it's also
23 about finding the 20 smaller sources that are close
24 together that are affecting some communities; and those
25 will tend to disproportionately be communities of color

1 and low-income communities, because social forces push
2 emitting facilities often into those communities.

3 So simply looking at this this way is related to
4 the movement toward environmental justice, and I think is
5 very -- it's just very key to the role and responsibility
6 of the ARB at this time.

7 Okay, I'm already on yellow.

8 So what we're looking for here - and this is --
9 it's kind of ironic. Here we're coming to you to ask for
10 something that's technically competent. That's really
11 what this is about. We want consistent, complete, and
12 accurate inventory of emissions from all sources that are
13 pertinent to communities and across the State.

14 Thank you.

15 VICE CHAIR BERG: Could I ask you a quick
16 question, please. Thank you so much for coming.

17 On those sources that you are talking about, the
18 20 sources, do those tend to be small- and medium-sized
19 businesses in your experience?

20 DR. KYLE: Not necessarily. It a -- it's an
21 accum -- what can accumulate can be a mix of big sources
22 and small sources. It's not all the same. That's why the
23 community scale assessments are so important and why, you
24 know, we need to look across what's out there. We need to
25 see what's out there so that we know what we're talking

1 about here.

2 But, no, I can't -- I can't say that it's always
3 the same. It can be quite different.

4 VICE CHAIR BERG: Great. Thank you very much.

5 MS. TORRADO: I'm so glad I'm wearing heels
6 today.

7 Good afternoon, Board members. My name is Paula
8 Torrado, and I am the new air -- toxic -- air and toxics
9 policy analyst at Physicians for Social Responsibility. I
10 am working on a community air protection grant which
11 intends to build the community capacity of south L.A.,
12 communities to engage in air quality policy efforts.

13 I previously worked on air quality monitoring and
14 advocacy for cleaner air policies in the Houston area.

15 The core to PSR-L.A.'s mission is to ensure that
16 the principles of environmental justice and the prevention
17 are at the center of environmental policy and the
18 regulations take the precautionary approach which is a key
19 component to prevent harm.

20 Throughout my experience as an air quality
21 advocate from Houston, Texas, I have learned the value of
22 reliable and accessible emissions reports. Houston's area
23 is widely monitored. However, air emissions reports
24 sometimes are often hard to find or there are data gaps
25 that places difficulty on communities and academics to

1 assist the need for solutions and to track their
2 efficiency. How could I as an air quality activist
3 prepare for my communities to prevent exposure to air
4 contaminants and advocate for regulatory action if I am
5 not equipped with the resources to do so.

6 California has a chance to reduce emissions and
7 protect frontline communities by incorporating a complete
8 emissions inventory with all sources and contaminants. A
9 complete, consistent -- oh, thank you.

10 A complete, consistent, accurate, and annual
11 inventory can bring valuable knowledge to communities and
12 agencies to work together on emissions reduction
13 solutions. Communities in the air industrial sites and
14 hazardous contaminants already have higher-than-average
15 exposure to air chemicals. Those -- California Air
16 Resources Board has the need to assess cumulative impacts
17 including co-pollutants and pesticides emissions that
18 should be incorporated in this proposal.

19 In addition, throughout this process CARB and air
20 quality districts need to spread the communication with
21 communities and other organizations to ensure the process
22 is guided by transparency and justice.

23 Finally, as a new member of PSR-L.A. and a long
24 air quality advocate, I'm looking forward to working with
25 CARB and PSR-L.A.'s allies of over 2,000 physicians,

1 academic partners, and community members to ensure that
2 this proposed regulation has the data and resources to
3 support the sustainable implementation of AB 617.

4 If we don't get this right, we run the risk of
5 again breaking the trust with the communities who have
6 stepped up to participate in this process and who are most
7 impacted by air pollution and climate change. CARB needs
8 to have robust inventories, cumulative impacts
9 assessments, better communications with communities,
10 co-pollutants and pesticides emissions incorporated in
11 this proposed regulation for reporting toxics, air
12 contaminants, and criteria pollutants, because, frankly,
13 these communities are the ones that are having health
14 threats as a result of breathing contaminated air.

15 Thank you very much.

16 CHAIR NICHOLS: Is Will Barrett still here?

17 Yes.

18 Oh, I'm sorry, Lizette. I -- pardon me. I
19 misread -- excuse me. Go ahead.

20 MS. HERNANDEZ: All right. Good afternoon. My
21 name is Lizette Hernandez, Director of Environmental and
22 Health Programs with Physicians for Social
23 Responsibility - L.A. I'm not a physician. However, I am
24 an urban planner and an engineer. And I have a cold, so
25 I'm sorry.

1 I am here in support of the staff proposal to
2 implement the criteria and air toxics emissions reporting
3 rule because, one, there seems to be no existing inventory
4 for air toxics, only pieces of one. We basically don't
5 know for certain how many sources of air toxics emissions
6 there are in California, and estimates vary widely, with
7 up to 80,000 air toxics sources, of which only 10,000, or
8 an 8th, of these air toxics in our state are in any
9 publicly accessible inventory.

10 Two, the reporting system for air toxics is
11 simply irregular. It seems that many facilities don't
12 consistently report emissions, and there are different
13 practices in every district. This is simply not
14 scientific. CARB needs to embrace sound scientific
15 methods if it also expects to effectively implement State
16 legislation such as AB 617, of which we are one of the
17 many grantees.

18 Three, enhancements to our reporting system may
19 allow us to account for localized impacts of air
20 pollution, which is an area of weakness in the current
21 system because it primarily accounts for only regional
22 pollutants and impacts, as you know. So we request that
23 first we have annual reporting.

24 Current reporting methods are erratic and
25 confusing for those like myself, my colleagues, our 2,000

1 physician members who want to understand what's actually
2 happening. We need criteria pollutants, air toxics,
3 pesticides, and greenhouse gases to be reported on a
4 consistent periodic time frame across all districts. We
5 would like deadlines for data to be submitted as well as a
6 stronger mandate which will include penalties for failure
7 to report on a timely basis.

8 Second, specific inclusion of pesticides and
9 fugitive emissions. Pesticides and fugitive emissions are
10 often a large source of pollution for communities, and we
11 often lack the evidence to assess the health impacts of
12 these emissions on everyone including sensitive
13 populations such as children, the elderly and those with
14 existing respiratory illnesses.

15 Third, we need to strengthen the capacity for an
16 independent accurate audit of data submittals by CARB or
17 independent contractors to help ensure that we are using
18 sound scientific methods in our new inventory methods.
19 This will also help us make needed corrections to the
20 system in an efficient way in the future.

21 And, lastly, we should have a unified data system
22 based on modern standards such as the use of electronic
23 data. After all, we do have Silicon Valley and whatnot in
24 our state. It's important to expand beyond the simple use
25 of paper records that aren't accessible to the agencies,

1 much less the public. Using modern technologies will
2 produce robust data that we -- that will allow communities
3 and regulators alike to ground-truth our understanding of
4 the behavior of co-pollutants and their cumulative
5 impacts. It will also potentially allow for the interface
6 with digital apps and mapping tools such as PSR's own
7 mapping tool, the 500-foot tool.

8 So please pass the staff proposal; and that way I
9 can also look at my 11-year-old son, lifelong asthmatic,
10 and know that we are doing the best that we can to correct
11 the wrongs of the past.

12 Thank you.

13 CHAIR NICHOLS: Thank you.

14 Now, Will Barrett.

15 MR. BARRETT: Thank you, Chair Nichols. If
16 nothing else, I'll always answer the bell. So thank you.

17 (Laughter.)

18 MR. BARRETT: Will Barrett, the American Lung
19 Association. And we definitely appreciate that the Board
20 and staff are taking seriously your commitment to expanded
21 monitoring and reporting. It's important to keep in mind
22 always that this is a reporting rule. It's a critical
23 step in informing the actions we need going forward to
24 protect public health from local sources of pollution as
25 envisioned by AB 617.

1 The data is key to action, bluntly. And we just
2 don't have the robust enough data inventory right now to
3 inform all of those actions that we'll need to take.

4 It's important for us to see a strong program in
5 place with annual reporting of all sources of harmful
6 emissions across the State. We've heard a number of
7 speakers talk about the need for consistency, accuracy,
8 completeness, comparable across the state data, and to see
9 that as soon as possible.

10 The original proposal that we've worked with
11 staff on over the past several months didn't quite get
12 there, but we do appreciate that the staff is working and
13 through the 15-day changes process really taking into
14 account ways to make this program stronger.

15 It was interesting to hear though the one-pound
16 threshold discussed by the district by some of the other
17 advocates in the room. And we'd very much like to
18 understand that more as the 15-day process goes forward.
19 One pound may sound like not that much, but it -- it's not
20 insignificant. So we do want to understand kind of the
21 rationale for that.

22 You've heard from our colleagues that there's
23 more work to be done. There is definitely a solid start
24 here with this long 15-day changes coming ahead. We'll be
25 there every step of the way, no matter how long 15 days

1 really is.

2 As far as the districts, we definitely understand
3 there's significant work involved in the processing and
4 reporting of the data. There's no doubt about that. This
5 is a great exp -- or grant expansion of that. And from
6 the Lung Association's perspective, we'll be there in the
7 legislature fighting for implementation funding. You
8 know, we've done that in the past. We're committed to
9 doing that in the future to ensure success of AB 617 and
10 that the districts can really carry out the mandates here.
11 So I think that's really important. I just want to put
12 that out there for the districts to hear.

13 We're also happy to hear that the districts will
14 try to move forward with a more unified system for
15 reporting. I think that's going to be helpful for
16 streamlining data accessibility; and really making this
17 more responsive to the public as we've heard from some of
18 the other speakers as well.

19 So ultimately, I just want to thank everybody
20 involved in this discussion so far. We know that there's
21 a lot more work to be done. We have 15 days ahead of us
22 that will be a long and exciting process. But I really do
23 appreciate the opportunity to extend the conversation into
24 that discussion.

25 And, again, thank you all for your work and all

1 the stakeholders' engagement here. So thank you.

2 CHAIR NICHOLS: Thank you.

3 And Stephanie.

4 There you are.

5 MS. TSAI: Hi again. Stephanie Tsai with the
6 California Environmental Justice Alliance. So I want to
7 align my comments with Bill at Coalition for Clean Air and
8 Amy Kyle, and as you've probably seen me sign on to a
9 letter with a bunch of our fellow advocates here today --
10 some of whom are here today.

11 So also really want to appreciate the staff
12 efforts on this, in particular Dave for really making I
13 think a very commendable extra effort to, you know, not
14 only visit all the air districts but also to reach out to
15 the advocates and include us in the process, which we
16 really appreciate.

17 So we're supportive of the late changes being
18 proposed, and I think, you know, agree with Will that we
19 look forward to the 15-day process, however long that
20 actually takes.

21 We, you know, in particular, support and
22 appreciate the effort to expand the reporting requirements
23 to more sources and remove the sunset provision. This is
24 a really good step forward.

25 At the same time, we do remain concerned about

1 some small sources that still may not be included. Many
2 small sources, as you've heard, are highly toxic and
3 harmful on their own and do cause serious health
4 consequences in our communities. And in addition, small
5 sources contribute to cumulative impacts. You know, in
6 order to accurately assess the cumulative pollution
7 burdens in our communities, we really need data on all
8 emissions from all sources.

9 So with that, I also want to point out a couple
10 of other things that CEJA in particular requests. We
11 would like to see a clear process for independent review
12 and a way for communities to petition for review and
13 corrections when inaccuracies are found. I want to point
14 to the example of refinery emissions. Those in particular
15 have been frequently grossly underreported. Our recent
16 joint study by AQMD and the Swedish scientists, a group of
17 Swedish scientists found that benzene emissions from
18 refineries are on average 34 times higher than reported.

19 So in addition to statewide standards, we also
20 request that CARB, you know, step in to correct the
21 reporting when standard methods result in underreporting.

22 We also support the ask that pesticide emissions
23 be brought in and included. And, again, overall we
24 support the progress on this and are encouraged to see
25 this, and we really urge the Board and staff to move

1 forward quickly with the next steps to finalize and
2 implement this. And also on follow-up steps and actions
3 once we have the regulation, I think has been recognized
4 there's, you know, still a lot to do and this is a really
5 great first step.

6 I'll also agree with Will that we -- you know,
7 CEJA does engage in the budget advocacy process every
8 year, and we will continue to support funding for
9 implementation of this.

10 Thanks very much. We look forward to continuing
11 to work together.

12 CHAIR NICHOLS: Thank you.

13 And Genevieve Gale, yes.

14 MS. GALE: Made it onto the list.

15 Hello, everyone. Genevieve Gale, Central Valley
16 Air Quality Coalition.

17 Today is my data day. I'm actually up here
18 getting briefing from some of your staff. They're so
19 gracious to offer briefing on emissions inventories to
20 myself and a few other San Joaquin Valley advocates, also
21 on emissions' fate and transport, toxics, and the
22 accessibility of data. So I'm having a lot of fun today.

23 And we are talking about the resources that do
24 exist and the databases that do exist, and CARB has a
25 whole array of them. We also spoke with someone from

1 OEHHA. So I'm learning more about what's out there.

2 But also learning about the gaps in accessibility
3 to those databases. For instance, to learn about cancer
4 risk of facilities I now need to download a massive
5 program on to my computer and get a couple-hour training
6 on how to use that program and then input data, so I can
7 figure out how dangerous a facility near my house is.

8 And so that's kind of a lot of the work. And I
9 think we have some work to do, and I'm excited to do it
10 with your staff, on how we can make the data that we do
11 have more accessible to the public.

12 Then there's also gaps in the data. And I really
13 do support the changes that were presented today. And I
14 thank Mr. Edwards for all of his outreach that he has done
15 with the districts and advocates. And appreciate the
16 change of -- changing the enhanced reporting requirements,
17 not just for facilities in the 617 communities, but going
18 statewide for the major facilities. That's really going
19 to help with this community boundary fight that a lot of
20 communities across the State are having. You know, in
21 Fresno a lot of facilities were left out of the proposed
22 community. So this really, really helps for that.

23 But there are still data gaps, especially in the
24 San Joaquin Valley. We're really concerned about dairies
25 and agricultural fields. Right now dairies in the San

1 Joaquin Valley are considered an area source. So we
2 don't -- we can't map out where dairies are in the valley
3 unless you use Google satellite and look for some cows.

4 And we also don't know what emissions are coming
5 from different dairies. And I think this is really
6 important as we start to put in millions of dollars into
7 methane reduction strategies that supposedly have toxic
8 co-benefits. Are those working? Are certain practices
9 resulting in reduced emissions at certain dairies? We
10 don't know because we don't have the reporting for that.
11 So I know that it's not included in this proposal. But
12 hopefully as we move forward, we can -- we can work to
13 fill that in.

14 And I will concur with my colleagues on
15 pesticides and fertilizers as well. As we all know, the
16 UC Davis study that came out this year saying that NOx
17 from ag fields is actually potentially as much as NOx from
18 mobile sources, the fact that we don't have any reporting
19 on that shows definitely a gap in our understanding and
20 obvious ways to move forward.

21 So our thanks again to Dave and all the work
22 done, and I look forward to keep going.

23 CHAIR NICHOLS: Thank you. Glad we were able to
24 provide so much entertainment as well as enlightenment
25 today.

1 (Laughter.)

2 CHAIR NICHOLS: You know, I don't think it was
3 mentioned before but with respect to methane and the cows
4 in the field, the satellite that we're working on, which
5 will be launched in another year or two, is being designed
6 and instrumented by folks here in conjunction with the jet
7 propulsion laboratory. And one of its goals -- its
8 primary goal is to be able to observe constellations of
9 emissions, including things like dairies, and collect
10 data, which then would be under our formulation available
11 to the public. That's the whole -- the point of it.
12 There's a lot of work to be done to figure out how this is
13 going to work and how the data can be made available to
14 all kinds of different institutions, and there are other
15 entities that want to work with us on it. But this is
16 not -- it's not actually a pipe dream. It's a -- it's a
17 serious project that we're working on.

18 So I think that concludes the public hearing, and
19 I'm going to close the record.

20 And I now will recognize Dr. Balmes.

21 BOARD MEMBER BALMES: Thank you, Madam Chair.

22 So first off, I want to say that Professor
23 Sperling's not the only professor on the Board.

24 (Laughter.)

25 BOARD MEMBER BALMES: And he often goes on a long

1 soliloquy about transportation issues. This regulation's
2 in my wheelhouse. So --

3 (Laughter.)

4 BOARD MEMBER BALMES: -- you'll excuse me if I go
5 on a bit.

6 CHAIR NICHOLS: So you're feeling empowered
7 today, are you?

8 BOARD MEMBER BALMES: So, first of all, I want to
9 add to the chorus of praise for Dave Edwards and his
10 efforts along with the other staff members supervised by
11 Michael Benjamin on this. And I want to underscore that
12 Dave's comment about this being a paradigm shift fits in
13 with what I've been saying about AB 617 all along, which
14 is transformative, because it involves the paradigm shift
15 from regional air quality monitoring and control to
16 community air quality monitoring and control.

17 And this is a key part, this improved emissions
18 inventory is a key part of implementing AB 617 properly
19 with its goal of trying to deal with decades of
20 environmental injustice because, as many of the testifiers
21 pointed out, there are decades of emissions -- high
22 emissions or multiple emissions from smaller sources
23 impacting these communities.

24 But because it is a paradigm shift, and
25 transformative, it does require time and resources. So I

1 totally appreciate the air districts' concerns about yet
2 another heavy lift associated with AB 617. And as -- I
3 forget who, but one of the district representatives, maybe
4 Alberto, pointed out that the funding from AB 617 from the
5 State is only like two-years worth. And I'm already
6 hearing complaints on the AB 617 Consultation Group that I
7 chair about there aren't enough resources even to do what
8 we're already planning to do and this is another
9 additional time and resource investment.

10 So I would call on Assembly Member Garcia as one
11 of our legislative members to bear that in mind. And I
12 think we do -- we will need more resources to properly
13 implement this regulation.

14 So I do want to remind everybody, it's been
15 stated, the goal here is uniform statewide inventory of
16 all stationary sources.

17 And I take issue with DeGuzman's suggestion that
18 there are insignificant emissions from some of these
19 facilities. Well, maybe from one single facility. But
20 when you combine 20 facilities in one neighborhood, those
21 multiple insignificant - in quotes - emissions may be
22 significant, and we need to know whether they are or not.

23 I don't want to bash Mr. DeGuzman because he had
24 a great idea that I think we should -- that I want to
25 underscore, it'd be great to have one system. You know,

1 not one for criteria pollutants, not two for toxics; but
2 one system. And so I heartily agree with that idea. So
3 thank you.

4 I think some of the air districts are already
5 well positioned to implement this assuming they get
6 adequate resources.

7 But I don't think all districts are the same, all
8 35 districts. So to achieve that goal of the statewide
9 inventory that's uniform, I think CARB is going to have to
10 have a major role in monitoring the quality of local air
11 district data gathering. And, you know, while I heard
12 Jack Broadbent correctly saying to align the enforcement
13 require -- or responsibilities of districts with the
14 emissions reporting, they want to see the emissions
15 continue to be reported to the districts, I'm totally
16 supportive of that. But I think then it should
17 automatically electronically go to a statewide system that
18 we have to develop and that's going to take work.

19 And that, you know, brings me to: The system
20 that we currently use really is from the eighties. You
21 know, it follows the 1987 law that Mr. DeGuzman mentioned.
22 And, you know, we should bring this reporting system to
23 the modern era, to the 21st Century. The technology's
24 available. So I think if we do it right -- there'll be
25 some upfront costs in developing the system. But if we do

1 it right, it should save money over the long haul. And I
2 would -- I hope we could do that. And it would also
3 increase public access, which is -- I didn't go back to
4 look at the exact language of AB 197, but I think it's
5 clearly -- there's clear target about -- or clear mandate
6 to have publicly accessible emissions data so that the
7 public in communities knows what they're being exposed to.

8 And then I agree with including pesticide
9 emissions. You know, it's not just environmental justice
10 stakeholders that have lobbied me about this.

11 Colleagues - I won't mention names - from our -- the
12 CalEPA Scientific Review Panel, SRP, and the Office of
13 Environmental Health Hazard Assessment, a sister agency,
14 they have both lobbied me -- or folks from both agencies
15 have lobbied me about including pesticides. And if we
16 want to talk about toxicity, ambient exposures to
17 pesticides are as toxic as they come.

18 So I think that wraps up my soliloquy. But I
19 want to say that -- I want to echo several people who have
20 said that this is an important step forward. You know,
21 we're not going to get all the way where we want to be
22 tomorrow, not even after an extended 15-day review. But
23 this is an important step forward and we have to take it.
24 And so I'm very supportive of this first step. And I look
25 forward to participating in that extended 15-day review

1 process.

2 Thank you.

3 CHAIR NICHOLS: Yes. We'll just go down the line
4 here.

5 Supervisor Serna.

6 BOARD MEMBER SERNA: Thank you.

7 First of all, I want to thank my colleague Dr.
8 Balmes for his articulation of some very valid
9 observations and points. I think I agree with almost
10 everything you mentioned.

11 I wanted to specifically start by thanking both
12 Dr. Ayala, who's my boss, so to speak, at the local level
13 when it comes to my service on the local air district; and
14 also especially to Mr. Corey. Just in the last day or so,
15 there's been a lot of concern expressed because of the
16 nature of shifting paradigms. And I know that that makes
17 for a certain level of discomfort, given the uncertainty
18 about what might be presented in the context of a hearing
19 like this.

20 So I think we've actually kind of come a long way
21 in a very short amount of time in terms of a place that I
22 think is fair for both -- some of the local districts that
23 have expressed that concern about the uncertainty involved
24 with this, especially when it comes to, as Dr. Ayala
25 mentioned, the resources that are going to be necessary at

1 the local level. And let me tell you, as a county
2 supervisor, the whole concept of unfunded mandates is not
3 lost on me.

4 (Laughter.)

5 BOARD MEMBER SERNA: So I can appreciate from a
6 real practical standpoint wanting to have as much
7 certainty around that as possible.

8 And again, as Dr. Balmes just mentioned, with an
9 uncertainty out there about the funding after two years, I
10 think it's a valid point, that both at the State level and
11 the local level we have to be working towards working with
12 our legislative representatives to figure out how that is
13 going to evolve. I don't think you can reasonably expect
14 that, you know, kind of, you know, fees out in the future
15 that would be imposed at a local level will cover it,
16 because we don't know what "it" is. We're kind of, you
17 know, flying the plane that we're building at the same
18 time. And those concerns are not lost on me.

19 So I want to end where I started, with thanks to
20 both Richard and Dave and your staff and to Dr. Ayala and
21 his staff at the local air district here in Sacramento.
22 And I too would like to continue in my role as perhaps a
23 shuttle diplomat to some degree between the two as this
24 continues to evolve.

25 Thank you.

1 BOARD MEMBER RIORDAN: Madam Chair, if I may.

2 CHAIR NICHOLS: Yes, please.

3 BOARD MEMBER RIORDAN: Let me build on that just
4 a bit, because I certainly agree with Supervisor Serna.

5 Let me speak for the small and midsize air
6 pollution control districts. We have very little money.
7 We balance our budgets, but they are very tight. And I
8 think the smaller districts have a lot of concern about
9 how much workload this will cause and how they will fund
10 that, because it truly means perhaps bringing on
11 additional staff to make it successful - and we want it to
12 be successful. So the efforts that were made in the last
13 few days I think are extremely important. And if I can
14 say anything to both CAPCOA and to Mr. Corey and staff,
15 the inclusion in the resolution of your efforts into the
16 future to work on resources are most important. We want
17 this to -- to succeed; commendable goals, very important
18 to a number of people who are residents of California.

19 But if we don't provide the resources to do it
20 right, then we're going to have a product that just isn't
21 going to be workable.

22 So thank you for your efforts. I will be
23 supportive based on that effort of cooperation with the
24 local air districts.

25 CHAIR NICHOLS: Go ahead.

1 VICE CHAIR BERG: Thank you.

2 I'm also in full agreement with what has been
3 said, but I think I'm going to bring in a larger
4 conversation. And the larger conversation, well, it's
5 really twofold. I appreciated that Bill Magavern's
6 quoting what we cannot -- we cannot manage what we cannot
7 measure. I'm not convinced that it isn't the tools to
8 manage that we don't have versus what we haven't measured.
9 We've measured an awful lot of things. We've required a
10 lot of data to come in. And I'm not thoroughly convinced
11 that it isn't some of the tools that we're missing to be
12 able to manage this; and would be very interested in
13 another conversation to have with staff is, what have we
14 learned from other regulations that haven't produced what
15 we wanted best -- to be able to make sure that this
16 regulation that we're putting in place is going to get
17 what we want. So number 1.

18 Number 2 is, when we get all of this information
19 on -- the next thing I wrote down, which really struck me,
20 if we don't get this right, we risk breaking further trust
21 with the communities.

22 Well, what is it we're trying to get right?
23 We're really trying to reduce emissions from all these
24 businesses. And these businesses and these environmental
25 justice areas, a lot of them have been there for a hundred

1 years. And it's right, society has moved, these
2 communities have grown because of the poverty issue. And
3 so what is the end goal? If we expect that these
4 businesses can in fact become non-emission oriented, is
5 that realistic? Or are we going to close them down and
6 have them move elsewhere?

7 So I think we've been talking about importance of
8 jobs, we've been talking about all these different things,
9 and a conversation with maybe the 617 people and these
10 communities of what is the end goal here? I'm from -- my
11 business is in Boyle Heights. And I can tell you right
12 now, we have a critical lead problem from a hazardous
13 waste facility that recycled lead batteries. It's
14 currently out of business. We got 7,000 homes that have
15 lead contamination, and we're looking at a projected
16 10-year cleanup.

17 Well, I would suggest that that's not acceptable.
18 And so what are the priorities, how are we going to
19 address these, and how are we going to set expectations
20 and so that we can have wins in all the columns, and we
21 keep the integrity with the communities, and we make
22 things better?

23 I'm absolutely all for that.

24 So it's a big job and it does fall on the data
25 people. And so I just want to make sure that as we set

1 this up, that the expectations between the resources that
2 are truly needed to not only monitor but to analyze, to
3 answer those questions that you had in the staff
4 presentation, Mr. Edwards, those are great. But it takes
5 real people to be able to look at this, to analyze, to ask
6 those questions. And so I just want to be cautiously
7 optimistic but also cautious as to what can we do and how
8 can we give it and make sure we're communicating with our
9 EJ partners to keep an eye on the ball as to what are the
10 priorities, and how at the end of day can we truly make a
11 difference, which is going to require getting a
12 partnership with the businesses within those -- especially
13 the EJ communities to come up with solutions.

14 Thank you.

15 CHAIR NICHOLS: I usually wait to speak until the
16 end, but I want to add something to what Vice Chair Berg
17 just said.

18 I was at EPA when we were rolling out the
19 requirements of Title 5 under the 1990 amendments to the
20 Clean Air Act that required -- essentially required
21 real-time in-stack monitoring for every source over a
22 certain size. It was one of those items that was fought
23 for hard in the Clean Air Act. And there was a lot of --
24 a lot of time spent on what kind of monitors, and whether
25 people would really have to, you know, put them in, and

1 what the data could be used for and so forth. And it was
2 a huge achievement for the environmental community that
3 they were able to get it.

4 And then over the years, it transpired that a lot
5 of the data that was being collected wasn't being used for
6 anything because there was nobody there to look at it.

7 And in fact the most useful thing, as far as I know, about
8 that whole very expensive exercise was that we collected
9 CO2 data at the same time because we used it as an
10 indicator of whether the monitoring systems were working
11 correctly. And so when it came time to build the system
12 for monitoring greenhouse gas emissions, we already had a
13 really well-placed system that enabled us to do it.

14 This is not an attack on the well-meaning and
15 well-thought-through initiative that was there. It's a
16 point about data and the lure of data; that we all think
17 that if we just have the data, then we'll be able to make
18 the right decisions.

19 And the point that I think my vice chair is
20 making here is that we really want to know going into this
21 exercise as much as we can about what we think we're going
22 to do with the data so we can build a system that will
23 accomplish that goal, because there's an almost infinite
24 number of ways you could do this.

25 John, go ahead.

1 BOARD MEMBER BALMES: Well, I just think just
2 think that again we need this -- these data to better
3 implement 617. And that to me is the goal of these data.

4 CHAIR NICHOLS: Right. But what do you mean --

5 BOARD MEMBER BALMES: The community emission
6 reductions plans.

7 CHAIR NICHOLS: Yes, right. But having said
8 that, you know, at what level of fine granularity, by what
9 definition of, you know, the geographical, what form of
10 data collection? I'm really not arguing against the goal.
11 I'm arguing in favor of taking the time to think through
12 and talk through these issues. That's all.

13 Okay. Yes.

14 BOARD MEMBER SHERRIFFS: Thank you.

15 I'm -- boy, staff, you are the paragon of
16 fitness. You know, you've had the endurance to go to all
17 the air districts, which is fantastic. And the last two
18 weeks, and maybe the last 48 hours particularly, you have
19 demonstrated your flexibility and nimbleness; real masters
20 of yoga as well as endurance. So very impressive.

21 And it's important, because, you know, there have
22 been some important changes, and focusing early on the
23 better understood toxics in term -- instead of casting
24 that net widely and collecting masses of data before in
25 fact we really understand what we might do with it. You

1 know, focusing on chromium and nickel.

2 Has been highlighted the shared concerns with the
3 air districts regarding funding for the work that we're
4 asking them to do, because it is a different level of
5 work. And obviously this Board recognizes specific
6 funding for districts is not optional in getting this work
7 done.

8 One thing I want to highlight is how important --
9 we're bringing a lot of small businesses in as we do this.
10 And we really need to be doing this in a respectful way;
11 really paying attention to the work that we're asking
12 small businesses to do. The difference between a one-page
13 form and a two-page form cannot be overstated. So we need
14 to think about how to keep these things simple so that
15 reporting is minimizing people's time. It's good data,
16 and we're not asking people to use -- come up with metrics
17 that -- it's not their metrics. We need to be doing that
18 calculation or whatever. But very, very, very important,
19 particularly because, as had been suggested, if -- to make
20 this actually work in the end we need partnerships and
21 collaboration at that granular level, and we -- we -- we
22 don't need to be exasperating people.

23 One question, and sort of along those lines, that
24 came up, a specific question, because there've been a
25 number of concerns, understood community concerns about

1 pesticide exposure, big concern in the valley: How does
2 what we're thinking of here interface with what's already
3 required in farming, you know? If you apply a pesticide,
4 you're filing a report with the county ag commission. So
5 I'm wondering how we're going to take advantage of those
6 existing systems.

7 DEPUTY EXECUTIVE OFFICER KAPEROS: I'll ask
8 Michael Benjamin to talk through the process that we use
9 currently. And you are correct, it starts with a filing
10 of a Pesticide Use Report with a farmer and the local ag
11 commissioner and then flows to the State.

12 CHAIR NICHOLS: Let's continue on.

13 Comments or questions? Anybody at this end --
14 Mr. Eisenhut, if you --

15 BOARD MEMBER EISENHUT: That's the problem with
16 being at the left end of the table is much has already
17 been said.

18 (Laughter.)

19 CHAIR NICHOLS: That's not a problem.

20 (Laughter.)

21 BOARD MEMBER EISENHUT: I want to --

22 CHAIR NICHOLS: That's a good thing.

23 BOARD MEMBER EISENHUT: But I'll do it anyway.

24 (Laughter.)

25 BOARD MEMBER EISENHUT: I wanted to endorse

1 Mr. Magavern's comment that -- about needing to measure.
2 And I think, in my mind, that's what we're discussing
3 here. And Dr. Sherriffs already went there in terms of
4 we've had a lot of discussion about the impacts of
5 these -- of this data collection on the districts and on
6 staff, less so about the reporting enterprises. And
7 speaking -- I don't know other industries, but speaking
8 specifically for ag, pesticide use is reported to county
9 ag commissioners and to the Department of Pesticide
10 Regulation. Fertilizer and manure use and management is
11 reported to regional water quality and water coalitions.

12 So if this data is to be captured electronically,
13 I would encourage during the 15-day period, not just with
14 regard to ag but with other industries that may already be
15 reporting, we capture the available data rather than going
16 back to those folks and asking them for duplicate reports.

17 And then I did have a question. Do we have a
18 common understanding of the term "fugitive"? Is that an
19 unexpected emission? Is that an expected emission that's
20 a byproduct and an expected byproduct of some other
21 activity? I'm -- I heard it discussed and I'm not clear
22 what the definition is.

23 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: This is
24 Dave Edwards.

25 The definition of a fugitive is something that

1 does not necessarily come from a stack that is on site at
2 a facility. So that examples: It could be as simple as
3 dust. It could be metal tailings. It even could be
4 different NOx emissions and so forth that come from
5 sources that is not easily sort of captured by a stack or
6 vent.

7 BOARD MEMBER EISENHUT: Okay.

8 CHAIR NICHOLS: Ms. Mitchell.

9 BOARD MEMBER MITCHELL: I'll make this very
10 short, since a lot has already been said.

11 Three main issues got raised: The concern about
12 the thresholds; the phase-in and the timing period of
13 phase-ins; and then the resources, having enough funding
14 and actually personnel to carry out the duties.

15 So I just want to urge the staff, which they've
16 already done, but have them keep working in the 15-day
17 plus period with all of the districts, because we know the
18 districts differ from one -- one from another. There's
19 differences as to what they measure and what they permit.
20 And so this new direction requires us to coordinate all of
21 that. And that is going to require some time and work on
22 the part of the staff with all of our districts. So I
23 encourage you to keep doing that.

24 Thank you.

25 CHAIR NICHOLS: Okay. Next? Any comments?

1 Comments.

2 BOARD MEMBER TAKVORIAN: Thanks.

3 Okay. So I just wanted to add my appreciation to
4 staff's good work and I guess dexterity. They've stopped
5 being grumpy about not getting the briefing, when I saw
6 the slides today and the good report. So thank you for
7 all of the great changes that you've made.

8 I wanted to appreciate the districts for their
9 openness and the EJ and environmental activists for being
10 kind of nerds in the pursuit of EJ and health. We need
11 you, so thank you for doing that.

12 I just want to say that, you know, community
13 right to know was early to mid eighties. 2588 was passed
14 in 1987, 30 years. And it was -- the threshold for 2588
15 was always too high, and it was stated at the time, that
16 it was to start with the largest sources and was going to
17 go down to the smaller sources, that we would have a
18 cumulative and community-level assessment of what
19 communities were being exposed to. And that just never
20 happened. And I don't even think that 2588 was -- its
21 goal was realized. And I appreciated Mr. Fine's candid
22 response to Ms. Berg that 2588 reporting just may not be
23 as easily accessible or transparent as it needs to be. So
24 I think we're on this path.

25 And I want to thank Assembly Member Garcia for

1 helping us with 197 and with the 6717 work. I really
2 think that community scale assessment's important, so I
3 hope that we can include that -- continue to include that.

4 I want to agree with everyone who said it, that
5 pesticides absolutely should be included, not only from a
6 rural-agricultural perspective, but also from the
7 commodity fumigation perspective that was raised. Having
8 an elementary school two blocks from a commodity
9 fumigation facility at the Port of San Diego, we fought
10 for five years to have methyl bromide be banned from
11 that -- from use there. And it was an isolated situation.
12 But communities next to ports all over the State are
13 exposed to these pesticides, and that should be included.

14 I'm concerned about -- or I want to ask a
15 question about elimination or -- yeah, I guess elimination
16 of the third-party verification that's on page 9 of the
17 resolution. I wanted to ask a question and ask if you
18 could think about that. It seems like districts are
19 saying you don't have the resources, and we want to ensure
20 that they get those resources. But third-party
21 verification could be helpful in reducing the resources
22 that the districts have to use. Not that they'd be doing
23 a job for them, but they would help to actually ensure
24 that it's -- the ground truthing essentially gets done.

25 So I have a question about that. And if you all

1 can answer that, that would be great; or it could be
2 responded to in the 15-day period.

3 I also think another cost reducer is the uniform
4 system, and I really appreciate that and am glad you're
5 including that so that that's not something that each
6 district has to do, that it's something that we can have
7 across the state.

8 And, lastly, I really appreciated Mr. Eisenhut
9 and others' thoughts about capturing existing data that
10 can be plugged in. So it's not that all this data has to
11 be gone out and gotten in a new way, that it's -- some of
12 it's out there and it gets put together so we can look at
13 what the community scale impacts are and what the
14 cumulative impacts are.

15 So thanks.

16 And if you have thoughts about the third-party
17 verification, I'd love to hear that or it can wait until
18 after the 15-day.

19 CHAIR NICHOLS: Do you have a response on that?

20 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Yeah.
21 So we don't have sort of a process as rigorous as, let's
22 say, the mandatory reporting program for third-party
23 verification. But I did want to highlight that we do have
24 a section on emission report audits. So that at our
25 discretion, we can conduct audits across the state on

1 facilities, either ourselves as CARB or a third party. So
2 we do have that provision in the regulation.

3 BOARD MEMBER TAKVORIAN: So does it make sense
4 that this -- you would state that third-party verification
5 is not necessary? Because it sounds like you're kind of
6 going to use it if -- as you just stated.

7 AQPSD ASSISTANT DIVISION CHIEF EDWARDS: Yeah,
8 I -- I don't know if we can modify that. I guess that
9 might be reflected slightly incorrectly in the resolution.

10 BOARD MEMBER TAKVORIAN: So is that something
11 that can be addressed in the 15-day --

12 DEPUTY EXECUTIVE OFFICER KAPEROS: Ms.
13 Takvorian, we certainly can take that up in the --

14 CHAIR NICHOLS: Yes, we could make that change.

15 BOARD MEMBER TAKVORIAN: Thank you. I didn't --
16 I wasn't sure what the process was. Thank you.

17 CHAIR NICHOLS: Thank you for catching that.

18 Mr. Garcia, would you like to add some thoughts
19 here?

20 ASSEMBLY MEMBER GARCIA: I would, Madam Chair.
21 Thank you.

22 Let me begin by thanking the staff for bringing
23 this item forward. And certainly we've seen tremendous
24 amount of progress in a very short period of time to get
25 to where we're at.

1 The presentation addressed several issues that
2 were highlighted in a letter that was written to the Board
3 by the principal author, Christina Garcia, and several
4 other co-authors, Mr. Bloom being one of them, represents
5 Santa Monica area.

6 One of the issues that they highlighted was
7 addressed, and that had to do with the five-year sunset
8 and annual reporting period.

9 Two other points that were made in the letter I
10 think will probably require some further conversation and
11 hopefully some corrective action measure. One is ensuring
12 that we really understand the intent of the two pieces of
13 legislation, which would then really lead to the two
14 points that I'm going to be making.

15 And the legislative attempt in order to
16 understand that, and as my colleague and principal author
17 of the bill has written here, we modified Health and
18 Safety Code 39607 requiring the State Board to require and
19 create a program to ensure air quality data is collected
20 in each air district. That data requirement wasn't just
21 limited to stationary sources, but was meant to include
22 all sources air pollutants and came along with a directive
23 to assess population exposure and methods for reducing the
24 exposure.

25 AB 197 amended that section to require the State

1 Board the publish stationary and mobile sources data on
2 line. And so, you know, my colleague, Ms. Garcia, wanted
3 me to make sure that I really highlighted and stated what
4 the intent of those two policies.

5 AB 617 added a new section right underneath the
6 section amended by AB 197 when it asked ARB to work with
7 air districts to establish uniform statewide reporting
8 emissions.

9 All these ideas are meant to work together toward
10 one goal, timely data that can be useful by stakeholders
11 in communities to understand and address pollution
12 exposure.

13 So the last two points that were highlighted in
14 the letter had to do with making sure that information was
15 consolidated at one place; not two separate sites but in
16 one place, making it that much more accessible and
17 friendly user to the communities that are directly
18 impacted and that have become part of this stakeholder
19 committee in moving with the implementation.

20 Lastly, there's no question that -- and these are
21 my comments -- that there needs to be more funding for the
22 purpose of the implementation. There's no question.
23 There hasn't been one issue in my four years in the
24 California Legislature that hasn't come before us that the
25 comments have been we need more funding to do our job.

1 Right? Seldomly have we committed that funding on a
2 long-term range. We have an annual budget. And very few
3 items that we've committed four-year, five-year funding.
4 The last significant one being the efforts related to the
5 fires, right?

6 But we put forward a budget for two years. Some
7 would argue that that may not be sufficient. And I, as
8 many of my colleagues and the authors of these pieces of
9 legislation, are committed to making sure that we continue
10 to fund these efforts, at the local air district level and
11 of course supporting us here at the Air Resources Board to
12 make sure we can carry these things out.

13 So I just wanted to close with those comments and
14 thank you for all of the work that's being done; and most
15 definitely thank you for being inclusive, as the law asked
16 us to be, of our environmental justice communities and the
17 stakeholders and the communities that are
18 disproportionately affected by pollution.

19 Thank you.

20 CHAIR NICHOLS: Thank you for that, for bringing
21 us back to grounding and what the intent is for doing this
22 exercise. I think it's pretty clear that the expectations
23 are very high from the community, that they will begin to
24 see improved reporting of information. And I again want
25 to stress that setting up the structure for this so that

1 not only what's received but also what is displayed is
2 accessible by various types of publics who are interested
3 in this is equally important, that we have to have a
4 system where people can relatively easily and without
5 having to have many days of training go and find the
6 information that they're looking for about what's being
7 emitted in their community. Seems to me to be as
8 important as the quality of what goes into it.

9 So this is a major undertaking, and it does
10 require effort and funding. I think it's also going to
11 require some redirection of existing resources as well in
12 order just to support something that's as big a shift as
13 what we're talking about here. This is going to be a very
14 exciting 15-day changes period --

15 (Laughter.)

16 CHAIR NICHOLS: -- perhaps one of the most
17 interesting ever. But very important I do want to remind
18 people that that's what we're doing here as we're
19 launching a period that will respond to and report on
20 these issues that have been identified. So there will be
21 another public comment period when that is ready to be
22 exposed, and then we'll hear again. But we are leaving it
23 to the executive officer to take action in accordance with
24 the information that comes in and keep us posted about
25 what's going on. I'm sure those who are on local air

1 districts will be hearing a lot from their staffs no
2 matter what. And the rest of us will have to rely on our
3 staff to keep us up to date.

4 But I think with that, we should probably be
5 prepared to act on the resolution.

6 Do we have any additional legal requirements
7 before we can do that?

8 CHIEF COUNSEL PETER: We do not.

9 CHAIR NICHOLS: We do not.

10 All right. Thank you.

11 In that case, I think we just need a motion and a
12 second.

13 BOARD MEMBER BALMES: So moved.

14 CHAIR NICHOLS: Moved by Dr. Balmes.

15 BOARD MEMBER SHERRIFFS: Second.

16 CHAIR NICHOLS: Seconded by Dr. Sherriffs. He
17 got there first.

18 All right. All in favor please say aye?

19 (Ayes.)

20 CHAIR NICHOLS: Opposed?

21 Any abstentions.

22 Seeing none.

23 Thank you all. This has been a really
24 interesting and important discussion, and we look forward
25 to carrying it on as we move forward.

1 We're going to take another 10-minute break and
2 be back at 1:30, I hope. And we have one more important
3 item to deal with which has to do with trucks.

4 Thank you.

5 (Off record: 1:18 p.m.)

6 (Thereupon a recess was taken.)

7 (On record: 1:34 p.m.)

8 VICE CHAIR BERG: We're going to go ahead and
9 start our final item. I wanted to remind everybody that
10 the Board members who are just finishing up lunch in the
11 back can hear the report, and they will be filtering back
12 in. So please know your hard work is being listened to.

13 Our next agenda item is an informational update
14 on the implementation of Senate Bill 1's requirement that
15 ties compliance with CARB's Truck and Bus Regulation to
16 the registration of heavy-duty vehicles with the
17 Department of Motor Vehicles. This requirement builds on
18 a long-standing essential interagency partnership that
19 will help ensure the Truck and Bus Regulation achieves its
20 intended reduction of harmful pollutants and puts
21 everybody on an even playing field.

22 The health impacts of the diesel particulate
23 matter are substantial, and compliance with the Truck and
24 Bus Regulation is crucial for accelerated turnover of
25 older and dirtier vehicles. Compliance with this

1 regulation means a step forward in reaching our health
2 protective air quality standards.

3 Today we will receive an update on the
4 implementation of this new compliance verification
5 process, on the work that is being done and actually has
6 been done over the last couple of years to ensure
7 successful rollout of this new legislation and on the
8 streamlined enforcement process for reducing the number of
9 current noncompliant vehicles as we prepare for the new
10 law to take effect.

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

12 EXECUTIVE OFFICER COREY: Yes. Thanks, Vice
13 Chair Berg.

14 In April, 2017, the Legislature passed Senate
15 bill 1, as you noted, the Road Repair and Accountability
16 Act, which included the requirement the Department of
17 Motor Vehicles verify compliance with CARB's truck and bus
18 regulation before registering heavy-duty and medium-duty
19 vehicles.

20 CARB, in partnership with DMV, is working to
21 ensure the successful implementation of this new law prior
22 to 2020, when compliance verification is required to
23 begin.

24 At the beginning this year, the Truck and Bus
25 Regulation had a compliance rate for California-registered

1 vehicles of approximately 80 percent. The new automatic
2 compliance verification under SB 1 is design to increase
3 this rate substantially, bringing with it improved air
4 quality and a more level playing field for businesses in
5 California.

6 To ensure the new compliance verification process
7 runs efficiently, CARB is working to create the systems
8 needed for the data handshake between CARB and DMV.

9 CARB staff is also cognizant that without the
10 additional efforts staff will describe, many owners could
11 be caught unaware. To minimize the impact of this new
12 compliance verification process on businesses in
13 California, while still achieving the maximum compliance
14 rates, staff has included as key components of the program
15 implementation an awareness campaign and funding
16 opportunities.

17 Today's informational presentation will review
18 staff's implementation progress and enforcement efforts to
19 reduce the number of noncompliant vehicles for the new DMV
20 compliance verification process.

21 I'd now like to turn the presentation over to
22 Jennifer Gray with our Mobile Source Control Division, who
23 will be providing the first part of the staff
24 presentation; then Adam Gomez from our Enforcement
25 Division will share the current enforcement efforts

1 related to the Truck and Bus Regulation.

2 Jennifer.

3 (Thereupon an overhead presentation was
4 Presented as follows.)

5 AIR POLLUTION SPECIALIST GRAY: Thank you, Mr.
6 Corey. Good afternoon, Vice Berg and members of the
7 Board.

8 We will share with you today the work that staff
9 from across the agency are undertaking together to address
10 a new law, the Road Repair and Accountability Act, which
11 was signed into State law in April 2017.

12 This new law includes requirements that medium-
13 and heavy-duty diesel trucks and buses must be in
14 compliance with CARB's Truck and Bus Regulation before the
15 California Department of Motor Vehicles can issue the
16 vehicle's registration.

17 You will also hear from our Enforcement Division,
18 who will conclude the presentation with an update on their
19 work with currently noncompliant fleets.

20 --o0o--

21 AIR POLLUTION SPECIALIST GRAY: First I'll give
22 you an overview of what the new law's requirements are
23 regarding the DMV compliance checks. Then I'll cover some
24 relevant details of the Truck and Bus Regulation. Next,
25 I'll share with you some of the compliance challenges that

1 CARB has faced, why this law is important, and some of the
2 tasks CARB staff have been working on to provide a smooth
3 rollout of this new process.

4 Then Adam Gomez will relate the Enforcement
5 Division's strategy, efforts, results, and future
6 activities. Adam will also provide what's next on our
7 to-do list as we approach 2020.

8 --o0o--

9 AIR POLLUTION SPECIALIST GRAY: Beginning January
10 1st, 2020, diesel-fueled medium- and heavy-duty trucks and
11 buses must be compliant with or be exempt from CARB's
12 Truck and Bus Regulation before DMV will issue vehicle
13 registrations. This new law phases in from 2020 to 2023,
14 consistent with the Truck and Bus Rule requirement, and
15 allows for temporary permits if necessary.

16 This augments our existing enforcement efforts
17 and how we currently work with DMV. Today, if our
18 enforcement staff sites a vehicle as noncompliant, they
19 may request that DMV place a registration hold on that
20 vehicle. However, this new law changes the timing and
21 nature of the registration process, so that there is an
22 automatic compliance check before DMV authorizes annual
23 registration, instead of a reliance on our Enforcement
24 Division finding all the noncompliant vehicles that are
25 already on California roads.

1 --o0o--

2 AIR POLLUTION SPECIALIST GRAY: The Truck and Bus
3 Regulation has been in place since 2008, and the final
4 turnover deadline is 2023.

5 While this new law doesn't change the number of
6 trucks and buses that are supposed to comply with this
7 regulation, it does provide an automatic compliance
8 verification process that will help ensure vehicle owners
9 take the action that the Truck and Bus Rule requires of
10 them. We estimate that between 2020 and 2023 over 200,000
11 California-registered trucks and buses - so half of all of
12 California's trucks and buses subject to this rule - they
13 will need to take action to come into compliance.

14 --o0o--

15 AIR POLLUTION SPECIALIST GRAY: The Board took on
16 an important task by approving the Truck and Bus
17 Regulation to protect public health, especially in
18 already-overburdened disadvantaged communities.

19 The rule requires most trucks and buses to
20 eventually turn over to 2010 or newer engines. This was
21 needed to help reduce emissions of diesel particulate
22 matter, or PM, and oxides of nitrogen, or NOx, along with
23 other criteria pollutants from diesel trucks and buses
24 already on our roads.

25 This rule is one of the most significant parts of

1 the Diesel Risk Reduction Plan and the State
2 implementation Plan, or SIP, in helping us meet the
3 federal and State health air -- health-protective
4 standards.

5 There are 1 million medium- and heavy-duty diesel
6 trucks and buses operating in California and subject to
7 this rule, 400,000 of which are registered in California
8 and 600,000 registered in other states.

9 Adam will talk more about what our enforcement
10 team is doing to address noncompliance of the vehicles
11 registered in other states, since the new DMV registration
12 requirements won't capture them.

13 --o0o--

14 AIR POLLUTION SPECIALIST GRAY: CARB has had a
15 dedicated compliance assistance program to help truck and
16 bus owners since 2011. We provide individualized support
17 through our diesel hotline and email services, and we send
18 out letters to remind those with upcoming compliance
19 deadlines that they will need to take action soon.

20 To reach many people at once, we developed the
21 TruckStop website, which provides a variety of tools and
22 information regarding all diesel regulations and funding
23 options. We also offer a dozen different courses that
24 provide guidance on complying with diesel equipment
25 regulations. Coupled with OneStop and other events, staff

1 take part in an average of 50 training classes and events
2 per year.

3 --o0o--

4 AIR POLLUTION SPECIALIST GRAY: Even though we've
5 had robust compliance assistance and active enforcement
6 programs, full compliance has been a serious challenge.
7 We knew going in this would be a tough rule to implement
8 because it required turnover from in-use fleets and
9 because there were a lot of small fleets. Then the
10 recession that began at the end of 2007 made compliance
11 even more difficult.

12 To address these challenges, CARB amended the
13 rule twice to provide fleets with compliance flexibility
14 options for a limited time. While most of these options
15 are drawing to a close, the engine model year compliance
16 schedules have been in place unchanged since 2008 and
17 fleets have had a decade to prepare for compliance.

18 --o0o--

19 AIR POLLUTION SPECIALIST GRAY: This graph shows
20 in the first bar the PM2.5 emissions in 2010 before
21 implementation of the Truck and Bus Rule began, just under
22 25 tons per day. The middle bar indicates in blue what
23 the emissions should be today if we had full compliance
24 with the rule.

25 And the hashed bar above that indicates the

1 excess PM2.5 emissions resulting from all the vehicles
2 that are currently out of compliance.

3 The third bar shows again in blue what the PM2.5
4 emissions should be with a full compliance.

5 And the red bar on top indicates what the
6 emissions would be without implementation of this new law.
7 It shows there would be an excess -- there would be excess
8 PM2.5 emissions if we keep going as we are today. We have
9 made great progress, but we need full compliance to help
10 meet our goals.

11 --o0o--

12 AIR POLLUTION SPECIALIST GRAY: We see a similar
13 story with NOx emissions; although since this rule's
14 initial focus was on PM emissions, you might notice we are
15 closer to our NOx emissions goals today. The rule
16 anticipated greater NOx emissions reductions to come in
17 2023; but without this new law, we would be farther from
18 achieving our future NOx goal.

19 These two graphs give you a picture of why this
20 new law is needed; that is, to reach the compliance levels
21 and thus the emissions reductions expected under the Truck
22 and Bus Rule.

23 --o0o--

24 AIR POLLUTION SPECIALIST GRAY: As I've
25 mentioned, the Truck and Bus Regulation has a compliance

1 phase-in period. While it was adopted in 2008, it didn't
2 require any changes to engines until 2011, and owners
3 could choose to delay buying replacement trucks or buses
4 by following one of several compliance flexibility
5 options. But by 2020, these options will have almost all
6 expired. This means that most vehicle owners will need to
7 replace their noncompliant trucks and buses with compliant
8 vehicles.

9 In 2020, people can select from just two
10 flexibility options: Maybe the truck or bus can be driven
11 under a thousand miles a year. If so, the owner might
12 choose to use the low-use exemption. Or maybe the owner
13 can limit the geographic area in which he or she drives
14 their vehicle to one of the cleaner rural areas of the
15 state, and therefore can commit to the NOx exempt area
16 exemption, driving only in those applicable counties.

17 These two flexibility options remain available in
18 perpetuity for the Truck and Bus Regulation.

19 --o0o--

20 AIR POLLUTION SPECIALIST GRAY: This law brings a
21 big change for the regulated community, and preparing for
22 this truck -- new truck and bus compliance verification
23 process requires a many-pronged approach to work out the
24 intricate details that must be considered in order to
25 successfully implement it. To achieve this:

1 We've established the new registration steps with
2 DMV;

3 We are compiling a refined list of vehicles that
4 will be allowed to register, that DMV may have otherwise
5 rejected;

6 We have robust outreach and enforcement
7 strategies; and

8 We are promoting funding opportunities to help
9 with the purchase of new vehicles.

10 These efforts represent the key steps to smooth
11 implementation.

12 --o0o--

13 AIR POLLUTION SPECIALIST GRAY: So, how is the
14 new registration process going to work if you're a truck
15 or a bus owner? DMV staff will run through a few checks
16 as the first step. They will check the age and weight of
17 the vehicle, and they will check model codes to rule out
18 some exempt vehicles. They will also check CARB's list of
19 compliant and/or exempt vehicles. If any one of these
20 checks indicates that it's a compliant or exempt vehicle,
21 DMV will send the vehicle through the normal registration
22 process.

23 If any one of these checks indicates that it's a
24 noncompliant vehicle, DMV will tell the owner that the
25 vehicle appears to not be compliant with CARB's air

1 pollution control requirements and will provide CARB's
2 contact information for follow-up. Temporary permits are
3 available from DMV and CARB if owners need time to get in
4 touch with CARB and discuss the details of their vehicle.
5 Staff will analyze the circumstances and let DMV know if
6 registration should be allowed.

7 --o0o--

8 AIR POLLUTION SPECIALIST GRAY: There are a few
9 categories of vehicles that aren't so clear cut for DMV to
10 filter out of its registration denial process, which is
11 where CARB's data is needed. We already have databases of
12 compliant vehicles, so we will use these reporting systems
13 to compile a list that goes to DMV each business day to
14 indicate which vehicles they can register.

15 We will also add to this list those vehicles that
16 might appear to DMV to be subject to the Truck and Bus
17 Rule but are actually subject to other regulations like
18 the solid waste collection vehicle rule instead.

19 And there are other vehicle types such as heavier
20 personal-use pickup trucks that are exempt from the Truck
21 and Bus Rule but are not in a CARB reporting database.
22 Owners of such vehicles will be able to provide
23 information on a simple form, including proof that they
24 are compliant or not subject to the rule, so we can
25 determine if they belong on the compliant or exempt

1 vehicle list. We may audit documentations that owners
2 provide.

3 --o0o--

4 AIR POLLUTION SPECIALIST GRAY: The outreach
5 program for this new law builds upon our 10 years of
6 interaction with the public to inform them of this
7 regulation. Wide-ranging outreach is a crucial part of
8 successful implementation, so truck owners know what to
9 expect and how to prepare for 2020. Staff is using two
10 main strategies to reach everyone. The first is to
11 provide direct and proactive outreach to fleets that are
12 currently compliant but have an upcoming deadline. And
13 the second is a broad outreach strategy for all of the
14 regulated community and the general public too.

15 --o0o--

16 AIR POLLUTION SPECIALIST GRAY: The direct
17 outreach approach involves sending postcards two years
18 prior to a vehicle's model year deadline and promoting
19 available funding programs. We are also sending more
20 specific letters to fleet owners whose vehicles are one
21 year away from a compliance deadline. We started sending
22 these new law notifications in 2017 and we are currently
23 working on a one-year reminder letter which will have both
24 CARB and DMV logos and will be sent in a DMV envelope to
25 help it stand out in a truck owner's stack of mail.

1 Additionally, we'll send mailers to those fleet
2 owners who might need to get on our list of compliant and
3 exempt vehicles.

4 We have also added more operators to our diesel
5 hotline to help field the increase in calls that we expect
6 to see as word of this new law spreads and as the
7 deadlines draw nearer.

8 --o0o--

9 AIR POLLUTION SPECIALIST GRAY: DMV is helping
10 with our broad outreach approach too. DMV field offices
11 are already showing a video we created, and DMV commercial
12 offices have displayed posters we created to help get the
13 attention of and to inform truck and bus owners.
14 Additionally, DMV will distribute some of our other
15 outreach materials at their commercial offices and at
16 their outreach events.

17 We are also coordinating with several trucking
18 industry associations. They've offered to include
19 articles in their magazines or newsletters, and have
20 invited us to participate in their member events.

21 For those who want online support, the TruckStop
22 website now includes a new interactive tool that allows
23 users to determine their engine compliance dates and
24 provides information about the remaining compliance
25 options. We are pleased to see that this tool is already

1 drawing in a lot of activity, with an average of 300
2 visits per week. We expect the use of this tool will help
3 reduce the number of vehicle owners that will need to call
4 for information.

5 To raise further awareness about this new DMV
6 compliance verification process, CARB has contracted with
7 a marketing company to roll out a multi-media outreach
8 campaign.

9 --o0o--

10 AIR POLLUTION SPECIALIST GRAY: A media
11 contractor has implemented the rollout of our outreach
12 message, reaching markets throughout California and
13 neighboring states. The campaign message also reaches
14 Spanish- and Punjabi-speaking audiences.

15 Truck and bus owners are now noticing
16 advertisements in or on radio stations, billboards, trade
17 publications, fuel pump toppers, Internet ads, social
18 media, and streaming television services. The media
19 contractor has also organized several live radio
20 interviews with CARB staff.

21 This media contract spans two years, and after
22 the first year, CARB will assess the outreach impact and
23 decide on the best strategies for the second phase.

24 --o0o--

25 AIR POLLUTION SPECIALIST GRAY: CARB has put

1 billions of dollars over the past decade into multiple
2 incentive programs when the emissions reductions were
3 still early and extra; that is, prior to compliance
4 deadlines and above emissions reductions requirements of
5 the rule.

6 At this point there are just two funding pathways
7 left:

8 Vehicles that are currently compliant, and are
9 more than one year from a compliance deadline, are
10 eligible for replacement with help from incentive fund; or

11 Small fleets, even if out of compliance now, may
12 be able to take advantage of the Truck Loan Assistance
13 Program.

14 --o0o--

15 AIR POLLUTION SPECIALIST GRAY: There are a few
16 incentive programs that fleet owners can consider applying
17 for as long as their fleets are already compliant. Two of
18 these are the Hybrid and Zero Emission Truck and Bus
19 Voucher Incentive Project, or HVIP, and the Low NOx Engine
20 Incentives. These programs are available if an owner is
21 interested in an advanced technology or natural gas trucks
22 or buses.

23 Carl Moyer and AB 617 funds are available, but
24 for a limited time, and some additional funds may be
25 available from local air districts.

1 Now, Adam will tell you about the enforcement
2 activities underway.

3 --o0o--

4 AIR POLLUTION SPECIALIST GOMEZ: Thank you,
5 Jennifer.

6 Today I will be presenting on the Enforcement
7 Division's efforts to address noncompliance prior to the
8 new law taking effect on January 1st, 2020. The role of
9 enforcement is to identify noncompliance; notify the
10 responsible party; provide compliance assistance; and, if
11 necessary, take enforcement action against the responsible
12 party.

13 --o0o--

14 AIR POLLUTION SPECIALIST GOMEZ: Over the past
15 decade, we enforced the Truck and Bus Regulation and other
16 CARB regulations applying to diesel vehicles through
17 comprehensive compliance audits. These audits were
18 thorough but time consuming. As we reported to you
19 earlier this year in June, over the past 18 months we
20 implemented a streamlined, more efficient process to
21 enforce the Truck and Bus Rule. This process has
22 dramatically increased our productivity, and today we are
23 updating you on our progress. However, despite these
24 efforts, there are still tens of thousands of vehicles
25 that are noncompliant and will be noncompliant in 2020.

1 --o0o--

2 AIR POLLUTION SPECIALIST GOMEZ: We estimate
3 approximately 82,000 California-registered vehicles are
4 noncompliant today. This analysis includes both heavy and
5 lighter trucks and buses subject to the rule, and is based
6 on an analysis of vehicle registration, compliance
7 reporting, and inspection records.

8 The average fleet subject to enforcement today
9 owns two vehicles; noncompliant fleets registered and
10 operating in California are almost uniformly small
11 businesses.

12 In addition, there are 260,000
13 non-California-registered vehicles in fleets that report
14 operation in California and do not meet regulatory
15 requirements. We do not have the data to confirm whether
16 a subset or all of these vehicles actually operate in
17 California. Nevertheless, these data demonstrate the need
18 to focus on non-California-registered vehicles operating
19 in California in order to help ensure a level playing
20 field across industry.

21 --o0o--

22 AIR POLLUTION SPECIALIST GOMEZ: We call the new
23 enforcement process the Streamlined Truck Enforcement
24 Process, or STEP. In this process we use vehicle
25 registration, compliance reporting, and inspection data to

1 identify non -- the compliance status of every vehicle in
2 every fleet that is registered in California. Once
3 identified as noncompliant, we send a Notice of
4 Noncompliance to the registered owner. This letter
5 initiates a process driven by strict timelines, designed
6 to resolve cases as quickly as possible. All
7 communications with each owner are recorded in the central
8 database. If a fleet fails to properly demonstrate
9 compliance, a Notice of Violation is issued. The Notice
10 of Violation assesses administrative penalties and informs
11 the fleet owner that registration holds will be placed on
12 their noncompliant vehicles until penalties are paid and
13 compliance is demonstrated. The Notice of Violation also
14 offers due process by giving fleets an opportunity to
15 request an administrative hearing. The STEP process has
16 shown to be very effective at resolving cases.

17 --o0o--

18 AIR POLLUTION SPECIALIST GOMEZ: We began
19 implementing the STEP process at the beginning of 2018.
20 To date, we have sent Notices of Noncompliance to 10,500
21 fleets, covering 20,500 vehicles. We have placed 10,000
22 registration holds on noncompliant vehicles. This process
23 represents a fivefold increase in productivity relative to
24 the previous enforcement efforts. We can address about
25 20,000 vehicles per year given current resources dedicated

1 to this process.

2 To date, we have collected \$1.6 million in
3 penalties. Any unresolved notices of violation may be
4 referred to the court for judgment, and if judgment is
5 issued, collection methods may follow.

6 --o0o--

7 AIR POLLUTION SPECIALIST GOMEZ: Despite this
8 increased efficiency, our current staffing levels will not
9 allow us to enforce against all 82,000 noncompliant
10 California-registered vehicles prior to 2020. Moreover,
11 the STEP process does not address noncompliance with
12 vehicles operating in California that are registered in
13 other states.

14 To address these considerations, we are
15 implementing a four-part enforcement strategy. First, we
16 will focus enforcement on the oldest and most
17 long-standing noncompliant vehicles. Second, we will send
18 Notice-to-Comply letters to instruct other noncompliant
19 fleets to meet regulatory requirements before registering
20 their vehicles in 2020.

21 Third, to reinforce the proactive outreach
22 message, we will send targeted warning letters to
23 currently compliant fleets that will become noncompliant
24 in 2020.

25 Finally, we are focusing field inspections on

1 non-California-registered trucks.

2 I will now discuss each of these elements in more
3 detail.

4 --o0o--

5 AIR POLLUTION SPECIALIST GOMEZ: We are focusing
6 our enforcement efforts on the oldest, highest emitting
7 California registered vehicles. These vehicles have been
8 noncompliant for a long period of time and tend to operate
9 in disadvantaged communities. As a result, this approach
10 achieves near-term emissions reductions from enforcement
11 activities in disadvantaged communities.

12 Our plan is to focus enforcement using the STEP
13 process on a total of 35,000 noncompliant vehicles by
14 December 2019. This is the maximum we can accomplish
15 given the resources available to the program, and will
16 reduce the magnitude of noncompliance in 2020 when the new
17 law takes effect.

18 --o0o--

19 AIR POLLUTION SPECIALIST GOMEZ: We will also
20 send Notice-to-Comply letters to the remaining 47,000
21 noncompliant California-registered vehicles and warning
22 letters to an additional 44,000 vehicles that are
23 currently compliant but will need to take action to meet
24 regulatory requirements in 2020.

25 All letters will be sent using certified mail and

1 tracked in our database. We will provide compliance
2 assistance for fleets that reply to these letters.

3 Using this approach, every current or future
4 noncompliant fleet owner in California will be notified of
5 their compliance status for each vehicle in advance of the
6 new law taking effect in 2020.

7 We will maintain records of every communication
8 with every notified fleet.

9 --o0o--

10 AIR POLLUTION SPECIALIST GOMEZ: At the same
11 time, it is vitally important that we continue to focus
12 enforcement efforts on noncompliant vehicles operating in
13 California and registering in other states. We are
14 continuing to focus inspections at border crossings and
15 issue citations to the noncompliant vehicle owners. We
16 are also investigating the use of automated license plate
17 readers to identify noncompliant vehicles operating in
18 California.

19 Additional enforcement will be accomplished with
20 the help of local air districts and the U.S. EPA.

21 --o0o--

22 AIR POLLUTION SPECIALIST GOMEZ: Prior to 2020,
23 we will have completed enforcement on 35,000 noncompliant
24 vehicles. We will have conducted an extensive outreach
25 campaign and notified each owner of a noncompliant vehicle

1 what they must do to comply. We will have provided
2 compliance assistance and offered truckload assistance.
3 We will have then, and will continue to, conduct
4 inspections to level the playing field between vehicles
5 registered in California and trucks registered in other
6 states that operate in California.

7 On January 1st, 2020, we expect more than 80,000
8 California-registered vehicles, primarily in very small
9 fleets, will be impacted. With our efforts and this new
10 law, we should achieve compliance with the Truck and Bus
11 Rule; and in doing so, achieve the emissions benefits that
12 California needs to help attain ambient air quality
13 standards and reduce exposure to toxic diesel particulate
14 matter in disadvantaged communities across the State.

15 --o0o--

16 AIR POLLUTION SPECIALIST GOMEZ: As we approach
17 2020 and the deadlines required by the new law, we will
18 continue working to develop a seamless process to ensure
19 only noncompliant vehicles are denied registration.

20 Education and outreach regarding the new law and
21 enforcement efforts will be crucial for successful
22 implementation. We will provide the Board with periodic
23 updates of our implementation. Most importantly, we will
24 continue to protect public health by getting dirty
25 vehicles off the road.

1 Thank you.

2 VICE CHAIR BERG: Thank you.

3 I'd like to open up the comments by saying how
4 impressive it has been how staff has tackled this program.
5 I've been very involved in the Truck and Bus Rule since we
6 passed it in 2008. I worked with the original
7 implementation group. I've -- I've seen how staff has
8 evolved over these years, looking at the needs of the
9 truck owners and the outreach and the education. I'm also
10 on the listserv for all of these notices and the constant
11 reinforcement. It has really been impressive.

12 But also impressive has been the branding of the
13 program. And so really staff is to be highly commended in
14 this really difficult -- we knew it was difficult in 2008
15 when we heard the item, and we were not incorrect on that.

16 And here now, this very important part of the
17 registration which was critical to get us to the next
18 level is going to come to pass in 2020.

19 So I'd like to open it up to my fellow Board
20 members to see if there's any questions.

21 Well, nobody signed up for public comment.

22 (Laughter.)

23 So maybe you could -- it would be difficult --

24 BOARD MEMBER DE LA TORRE: Then I guess it is to
25 me.

1 VICE CHAIR BERG: Do you know it would be
2 difficult to come in here and rather indicate that you are
3 out of compliance and needed more time. So I can kind
4 of --

5 BOARD MEMBER DE LA TORRE: That would be kind of
6 like a confession, wouldn't it.

7 VICE CHAIR BERG: -- understand why we didn't get
8 a run on public comment.

9 But a critical item. We have a truck shortage.
10 We have driver shortages. And so this -- it is a
11 complicated issue.

12 So, Mr. De La Torre.

13 BOARD MEMBER DE LA TORRE: First of all, 82,000
14 sounds like a whole lot to me. 82,000 potentially smoking
15 trucks out there really is troublesome. Clearly my
16 efforts to report smoking trucks on the 710 Freeway -- I
17 mean, how many lifetimes would that be to be able to get
18 82,000?

19 So I appreciate the magnitude of the problem.
20 And I know there's multiple efforts. We had an event
21 right before -- well, in late October with the Truck Loan
22 Program that the Treasurer's Office helps with. That was
23 very impressive. So we're not just doing this -- the
24 stick. We're also doing the carrot to this.

25 So when I was briefed, I was told about the

1 possibility of false positives. And clearly that's part
2 of the package here, to make sure that folks don't
3 accidentally get wrapped up in this. It happens all the
4 time. It's -- you know, it just happens. So it's to be
5 expected it will happen here.

6 But I appreciated the temporary permits that
7 people can get while they work things out, the appeals
8 process, et cetera. So that's very good.

9 In terms of outreach, there are three things; one
10 of which we've talked about before is these lots --
11 parking lots for heavy-duty trucks, that are certainly in
12 Southern California and in my area. They're just lots,
13 and the owners rent out parking spots to big rigs without
14 the containers, just the big rig. And they fill up in the
15 late afternoon, and they empty out first thing in the
16 morning; and, you know, they're just going back and forth
17 doing their runs. So these are mom-and-pop operators.
18 They're one truck, two trucks. They don't have their own
19 facilities.

20 So I think we need to identify these places, and
21 maybe get some cooperation from cities to say, you know,
22 if you have one of these or a few of these in your
23 jurisdiction, let us know. Because to me that will be
24 a -- a place where you're going to get a lot of folks who
25 are out of compliance.

1 So that's one.

2 Two: Truckstops up and down the state. The --
3 you know, the jet -- is that what it's called, Jet, those
4 fueling stations that are for the heavy-duty trucks up and
5 down the state on the highways. Other brands too, but
6 that's one that comes -- Jet or Jetro. Those kind of
7 places. And putting signage around there, getting
8 cooperation from those stations to put signage around
9 those places, because that's where the truck drivers are.

10 And then, finally, if there's any possibility we
11 could get some PSAs from some radio stations. These guys
12 are on the road a lot, and radio stations can run PSAs,
13 country stations and others --

14 (Laughter.)

15 BOARD MEMBER DE LA TORRE: -- to let them know.
16 Maybe, you know, somebody could do some pro bono PSAs, I
17 mean, around this town. We usually have trouble with the
18 media activities of folks who have interest before us.
19 But it would be really nice to get some help from these
20 people. They make so much money off of us indirectly,
21 that maybe we could get some of them to help us do some
22 PSAs and place them on those radio stations.

23 So those are just some ideas. I know this is a
24 really tough audience, a tough group to communicate with;
25 and despite our best efforts, we're not going to get

1 82,000 on our own. So maybe some of these things can pan
2 out.

3 And then, finally, thank you. We really need to
4 make this happen. I'm absolutely supportive of any
5 enforcement efforts. I think this is a great idea. And
6 whatever help we can provide, I'm certainly there.

7 Thank you.

8 VICE CHAIR BERG: Thank you.

9 Additional comments?

10 Yes, Dr. Sherriffs.

11 BOARD MEMBER SHERRIFFS: Let me start with a
12 question. And then I have some comments.

13 But clearly we should be commissioning a song for
14 playing on the airways about it's time to get a compliant
15 truck.

16 (Laughter.)

17 BOARD MEMBER SHERRIFFS: So those truck
18 inspection stations on the freeway, what percent of the
19 trucks out there do they actually capture? Of course is,
20 you know, ignorant public, you're looking at it, well,
21 every truck must go through one of those once a week or
22 once a month or at least once a year.

23 ENFORCEMENT DIVISION CHIEF SAX: So we do about
24 17,000 truck inspections a year. And there's about
25 400,000 California-registered trucks and a million trucks

1 operating -- up to a million trucks operating in
2 California. So that gives you an idea of what the
3 percentage is. It's not huge.

4 BOARD MEMBER SHERRIFFS: But the -- like the
5 State truck inspection stations - not necessarily an ARB
6 inspection - but they stop and CHP checks their insurance
7 and log.

8 ENFORCEMENT DIVISION CHIEF SAX: They do. So
9 they have a -- each of those truck inspection stations
10 they have sort of a layered inspection process. So they
11 will divert a small fraction of the trucks that are
12 driving past the weigh station, and then a small fraction
13 of those are actually inspected maybe.

14 BOARD MEMBER SHERRIFFS: Okay. So it's not a
15 very big net?

16 ENFORCEMENT DIVISION CHIEF SAX: It's not huge.

17 BOARD MEMBER SHERRIFFS: Yeah, okay.

18 You know, and you mentioned the parking areas as
19 an important place to find people. Obviously distribution
20 centers, it's another place there are lots of trucks.

21 You know, your emphasis on outreach and
22 education, huge. You know, that's the way you get buy-in.
23 That's the way you get people to believe that we're trying
24 to level the playing field here.

25 Thank you for your emphasis on enforcement in

1 this, because it is really critical for buy-in in terms of
2 the level playing field.

3 It certainly highlights -- this is paper
4 compliance. You know, if they've got a 2010 engine, we
5 are assuming that the emissions fit with what we think.
6 But we know that doesn't always work out that way. And so
7 ultimately it's a reminder one of the next steps is --
8 it's the legislative step in terms of we need a tailpipe
9 emission at the DMV level, a smog check, just the way we
10 do for cars. And that's something we need to continue to
11 keep our eye on.

12 So what does happen to these 80,000 vehicles?
13 Because even if -- even if everybody's going to actually
14 come to compliance by 2023, where do those trucks go?
15 What happens to them? Obviously we don't want them
16 reappearing at the border the next day.

17 ED DIESEL PROGRAM ENFORCEMENT BRANCH CHIEF
18 QUIROS: So there are enforcement efforts. What we mostly
19 see are trucks being sold currently out of state or out of
20 the country.

21 We also see vehicles that turn out to be low use
22 and can demonstrate that they remain below the low-use
23 mileage.

24 Some of them are scrapped and they're just
25 retired.

1 I think those are the main things that we tend to
2 see.

3 BOARD MEMBER SHERRIFFS: All right. But most are
4 continuing service somewhere?

5 ED DIESEL PROGRAM ENFORCEMENT BRANCH CHIEF
6 QUIROS: Somewhere. Some of them are, yes.

7 BOARD MEMBER SHERRIFFS: Okay.

8 VICE CHAIR BERG: But Dr. Sherriffs, when they're
9 sold, it is a requirement of the regulation that the
10 seller has to indicate that it is a noncompliant truck to
11 the CARB rule; and so that is part of the actual bill of
12 sale.

13 Any other comments?

14 Okay. Well, I just emailed my compliance
15 officer, of which I, as you all well know, have several
16 trucks. I happen to know they are all 2010 or newer. But
17 he does know about this rule, and so I'm feeling very
18 positive about that.

19 (Laughter.)

20 VICE CHAIR BERG: Thank you very much, staff.
21 You have your work cut out in front of you, no question,
22 for next year. And we'll be interested to hear your next
23 update, and of course January of 2020, the launch and how
24 it goes. So thank you very much. Let us know how we can
25 help.

1 Well, it's 2:15, and we do have four people who
2 signed up for public comment. And they were given some
3 information that we would be done round 3 o'clock.

4 So Professor Sperling and I, unbeknownst to him,
5 have volunteered to stay until 3 o'clock for -- no.

6 And we have emailed and called. But they did
7 come and they're -- they're here to talk about the
8 electrified tractor certification in Farmer & Carl Moyer,
9 all four of them. And I would feel very badly if they did
10 come back and have no one to talk to.

11 So we have email to do and things like that
12 and -- but certainly I know there are planes and trains to
13 catch, and so although I'm not officially closing the
14 meeting, we will wait until 3 o'clock. I want to wish
15 everybody a very, very Merry Christmas and a Happy New
16 Year - Happy Holidays, however you celebrate them - and
17 we'll see you in January, if you need to catch a plane or
18 train. If you want to hang out with us, you're welcome
19 to. But please continue to meet your other obligations.

20 So thank you very much, Board.

21 (Off record: 2:16 p.m.)

22 (Thereupon a recess was taken.)

23 (On record: 2:46 p.m.)

24 VICE CHAIR BERG: Well, thank you very much to
25 the Board members that were able to stay.

1 We want to welcome our general public comment
2 period for our Board meeting today. And so, we'll have
3 you introduce yourself, and we have three minutes for each
4 speaker. And thank you very much for coming back.

5 MR. HECKEROTH: Yeah, so sorry. They told me
6 that it would be 4 or 5. So I --

7 VICE CHAIR BERG: No. And that's why we stayed
8 for you, and so we're happy to do that. And thanks for
9 coming back a little bit early.

10 MR. HECKEROTH: I wanted to show a little video
11 that was done by my daughter. I've been making electric
12 agricultural tractors for 25 years, and nobody knows about
13 them.

14 My name is Steven Heckeroth. I've lived in
15 California all my life. I attended every zero emission
16 mandate hearing from 1992 to 2004, and was very
17 disappointed to see that it went from an electric vehicle
18 program to a hydrogen program and then sort of evaporated;
19 and was resurrected by Elon Musk.

20 During that time I -- of building electric cars,
21 I found that battery weight was the biggest issue with
22 electric vehicles. And I saw a tractor with a big cement
23 block on the back to balance the weight of the forklift on
24 the front. And I said, "That cement block could be a
25 battery." And that led me to think that tractors were the

1 best possible electric vehicle to be made.

2 And the advantages of electric over diesel are
3 huge, because electric motors have instant torque, as we
4 now know because of Tesla. And it has torque throughout
5 the low speed range that tractors operate.

6 I can tell you stories about -- I'm in commercial
7 production and I've got them out in Canada, in Norway, and
8 in Missouri. But I can't make it into California because
9 you guys have a Carl Moyer Program and a new Farmer
10 Program that pays for up to 80 percent of the cost of
11 replacing old diesel tractors with new diesel tractors.
12 And my electric tractor has not been certified, and it's
13 zero emission.

14 And I think it was the intent of the Legislature
15 to reduce emissions. And the new diesel tractors actually
16 produce more greenhouse gas emissions because they're less
17 efficient than the old ones.

18 So I'm hoping to short circuit somehow the
19 process that get -- that gets the certification for
20 electric tractors so that I can start providing jobs and
21 selling tractors in California.

22 And I don't know if they've got the video tuned
23 up, but it would be nice just to show it.

24 There it is.

25 (Thereupon a video was played.)

1 MR. HECKEROTH: So if you'd give me another
2 second, I just wanted to tell you a story about an
3 80-year-old woman who wanted to farm all her life but she
4 never wanted to get on a tractor because they're so noisy
5 and smelly. And they got -- her and her husband got a
6 farm, and I loaned them the electric tractor for -- to
7 plow and harrow and seed two acres. And when she got off
8 the tractor, I asked if I could interview her. And I --
9 she introduced herself, and then I asked her, "How did you
10 like the tractor?" And she started crying, because -- she
11 said, "I'm sorry I'm so emotional but I've wanted to do
12 this all my life but I've never wanted to get on a diesel
13 tractor." So that's the power that silence and power
14 this -- the electric tractor has, is to change people's
15 lives who've never -- the smart people in the room, the
16 ones who wouldn't put up with that noise and that smell,
17 to finally give them the opportunity to do the things that
18 they wanted to do and to grow food for people.

19 And food is kind of important.

20 VICE CHAIR BERG: Very important. Thank you so
21 much for coming. We're going to refer this to Steve Cliff
22 and staff, who will get in touch with you. And let's
23 see -- and we do have some feedback here for you. But
24 what we're going to do is get back with you and look at
25 that certification process. And this is really exciting,

1 comes at a great day that we did our first zero emission
2 regulation today. And so, then looking at the future,
3 this is very exciting. Thank you.

4 And, Ms. Riordan.

5 BOARD MEMBER RIORDAN: Mine is just a quick
6 question. Where are you making these?

7 MR. HECKEROTH: Making them in Mendocino County
8 right now.

9 BOARD MEMBER RIORDAN: All right.

10 MR. HECKEROTH: And I'm working with Garton
11 Tractor, who has 10 distribution centers throughout
12 California, seven of them in the San Joaquin Valley. So
13 we'll be able to distribute to all the places that really
14 need them.

15 BOARD MEMBER RIORDAN: Good, logical place to
16 start.

17 Thank you.

18 BOARD MEMBER BALMES: I have one question.

19 VICE CHAIR BERG: Oh, good. Dr. Balmes.

20 BOARD MEMBER BALMES: Have you already met with
21 John Eisenhut, who's an ag representative on the Board?

22 MR. HECKEROTH: No, I haven't. But I'd love to.

23 VICE CHAIR BERG: So we'll turn also this
24 information over to Mr. Eisenhut, and make sure that he
25 can get in contact with you and hear some more. Love to

1 have him see that individual as well.

2 MR. HECKEROTH: Great, yeah.

3 VICE CHAIR BERG: So that'd be good.

4 MR. HECKEROTH: And there's several more on my
5 website. So...

6 VICE CHAIR BERG: Oh, good. Well, we'll look
7 those up.

8 Well, Happy, Happy Holidays days and the best to
9 you for the New Year. And, again, thank you very much for
10 coming.

11 MR. HECKEROTH: Best to you too.

12 VICE CHAIR BERG: Thank you.

13 Is there any other -- would you like to also?
14 Christine.

15 MS. HECKEROTH: Christiana Heckeroth.

16 Madam, Vice Chair members of the Board. Thank
17 you so much for staying. We appreciate your time very
18 much.

19 My name is Christiana Heckeroth. I'm a
20 practicing physical therapist and I've been working with
21 my husband Steve on climate-change-related issues for over
22 two decades. From architecture to electric cars, and now
23 to electric tractors.

24 We find ourselves at a time when acting on
25 reducing greenhouse gas emissions is more important than

1 ever. And according to the Intergovernmental Panel on
2 Climate Change, we have 12 years left for significantly
3 reducing our greenhouse gas emissions to avert
4 catastrophic change.

5 When CARB adopted the zero-emission mandate in
6 1990 we were excited about the prospects of electric
7 propulsion coming to the market. But it took another two
8 decades before that became a reality and countless trips
9 to board hearings to plead for more expedient
10 implementation.

11 At the time it was the fossil fuel and auto
12 industry that attempted to maintain the status quo, of
13 burning fossil fuels for transportation.

14 Members of the Board, Madam Vice Chair, we are
15 running out of time. We don't have two decades to address
16 greenhouse gas emissions in California's agricultural
17 sector.

18 With your help, we won't need two decades. You
19 can expedite rules for inclusion of electric tractors in
20 the Farmer & Carl Moyer Program to assist farmers to
21 purchase zero emission instead of diesel-powered machines
22 for their farm operations. An electric tractor can be
23 fueled with renewable energy. Its efficiency is
24 unmatched, and health benefits for the planet and the
25 operator, it's quiet and does not admit any exhaust are

1 unparalleled.

2 I stand before you today because I hope that the
3 Board will have the foresight to see that it is all hands
4 on deck and that we must put zero-emission electric
5 tractors into the field now.

6 I appreciate your time very much.

7 VICE CHAIR BERG: Thank you very much for coming.

8 And then, Randal.

9 MR. MacDONALD: I have copies of my testimony.

10 VICE CHAIR BERG: Thank you.

11 VICE CHAIR BERG: Randal MacDonald from the
12 Sierra Club.

13 MR. MacDONALD: That's correct.

14 Madam Vice Chair, members of the Board. My name
15 is Randal MacDonald. I serve on the executive committee
16 of the Sierra Club's nine-county Redwood Chapter. I also
17 chair the chapter's Climate & Energy Committee.

18 We're concerned that CARB has not included
19 electric tractors in your agricultural equipment
20 replacement programs. The Redwood Chapter is home to
21 Solectrac, and which manufactures America's first
22 commercially available electric farm tractors.

23 For the record, I have no financial stake in
24 Solectrac whatsoever. Our interests in this breakthrough
25 technology, this breakthrough zero-emissions technology is

1 for its potential to dramatically reduce agricultural air
2 pollution and greenhouse gas emissions.

3 Since March, Solectrac has asked your agency
4 again and again how electric farm tractors can be included
5 in the existing Carl Moyer Program or your new Farmer
6 Program, which subsidize replacement of old polluting farm
7 equipment.

8 But after months of messages stating that the
9 process was underway, in November CARB staff told
10 Solectrac that the agency would, quote, begin discussions
11 on requirements for advanced technology inclusion in
12 Farmer this December, for completion sometime next year.

13 But back in April, when CARB announced the
14 Legislature's allocation of \$135 million for the Farmer
15 Program, your press release stated, quote, legislators
16 place special emphasis on purchasing vehicles and
17 equipment that use advanced technologies such as clean
18 diesel or electricity in order to accelerate improvements
19 in air quality.

20 So why hasn't your agency promptly implemented
21 this clearly expressed legislative intent? This has been
22 a missed opportunity which you can help rectify. It seems
23 to me that the delays by CARB staff incorporating electric
24 farm tractors may be due to the fact that this new
25 technology is so unique.

1 For example, during field work -- and I've worked
2 in the field, perhaps some of you have -- diesel tractors
3 are typically left running at idle between uses, whereas
4 electric tractors only run when they're in active use. So
5 program requirements for a certain number of hours of
6 operation cannot be applied to electric tractors the same
7 way they would be applied to diesel equipment.

8 And so-called clean diesel machines often produce
9 more CO2 than regular diesels because so much of their
10 energy is used up to reduce particulates.

11 Electric farm tractors are truly a zero-emissions
12 technology that is desperately needed in California's
13 fields right now.

14 Madam Vice Chair, members of the Board, this is a
15 golden opportunity for you to investigate and motivate
16 your agency to promptly include electric farm tractors
17 into your ag equipment replacement programs, as
18 legislators encouraged you to do. This will help
19 California meet our urgent goals of reducing harmful air
20 pollution and achieve carbon neutrality as soon as
21 possible.

22 Thank you.

23 VICE CHAIR BERG: Thank you very much for coming.

24 We had a fourth person.

25 Oh, we're good?

1 Okay. The last thing I want to put in the record
2 before we call it a day is we did -- the Board did receive
3 yesterday written comments only from Idle Free as part of
4 the general comments. And I just want to put in the
5 record that we received the letter, and we'll all take a
6 look at it and refer that over to staff as well.

7 So with that, I officially close the December
8 Board meeting. Thank everybody for staying. Thank you
9 very much for coming back. It is very exciting and we
10 will follow up.

11 Thank you.

12 (Thereupon the Air Resources Board meeting
13 adjourned at 3:01 p.m.)

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 28th day of December, 2018.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
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