

VIDEOCONFERENCE MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

ZOOM PLATFORM

THURSDAY, DECEMBER 9, 2021
9:07 A.M.

JAMES F. PETERS, CSR
CERTIFIED SHORTHAND REPORTER
LICENSE NUMBER 10063

APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

Sandra Berg, Vice Chair

John Balmes, MD

Hector De La Torre

John Eisenhut

Supervisor Nathan Fletcher

Senator Dean Florez

Assemblymember Eduardo Garcia

Davina Hurt

Gideon Kracov

Senator Connie Leyva

Tania Pacheco-Werner, PhD

Barbara Riordan

Supervisor Phil Serna

Dan Sperling, PhD

Diane Takvorian

STAFF:

Richard Corey, Executive Officer

Edie Chang, Deputy Executive Officer, Planning, Freight,
and Toxics

Chanell Fletcher, Deputy Executive Officer, Environmental
Justice

APPEARANCES CONTINUED

STAFF:

Annette Hebert, Deputy Executive Officer, Southern California Headquarters and Mobile Source Compliance

Edna Murphy, Deputy Executive Officer, Internal Operations

Rajinder Sahota, Deputy Executive Officer, Climate Change and Research

Craig Segall, Deputy Executive Officer, Mobile Sources and Incentives

Ellen Peter, Chief Counsel

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

Richelle Bishop, Manager, Citations Hotline Section, Enforcement Division (ED)

Matthew Christen, Senior Attorney, Legal Office

Greg Coburn, Manager, Heavy-Duty Inspection and Maintenance Section, Mobile Source Control Division (MSCD)

Martina Diaz, Chief, Citations and Registration Enforcement Branch, ED

Christopher W. Dilbeck, Manager, Testing and Certification Section, Monitoring and Laboratory Division (MLD)

Catherine Dunwoody, Division Chief, MLD

Rhead Enion, Senior Attorney, Legal Office

Dorothy Fibiger, Air Resources Engineer, Testing and Certification Section, MLD

Krista Fregoso, Air Pollution Specialist, Strategic Planning and Development Section, Mobile Source Regulatory Development Branch, MSCD

James Goldstene, Vehicle Program Specialist, ED

Walter Ham, Chief, Diesel Program Enforcement Branch, ED

APPEARANCES CONTINUED

STAFF:

Kim Heroy-Rogalski, Chief, Mobile Source Regulatory Development Branch, MSCD

Jason Hill-Falkenthal, Manager, Strategic Planning and Development Section, MSCD

Cody Howard, Manager, Specialized Fleet Enforcement Section, ED

Nick Kane, Air Pollution Specialist, Citations and Hotline Section, Citations and Registration Enforcement Branch, ED

Michael Miguel, Assistant Division Chief, MLD

Lucina Negrete, Assistant Division Chief, MSCD

Jenna Ostad, Air Pollution Specialist, Testing and Certification Section, Quality Management Branch, MLD

Heather Quiros, Assistant Division Chief, ED

Todd Sax, Division Chief, ED

Manisha Singh, Chief, Quality Management Branch, MLD

Sydney Vergis, Division Chief, MSCD

Nicholas Vizenor, Air Pollution Specialist, Testing and Certification Section, MLD

ALSO PRESENT:

Alan Abbs, Bay Area Air Quality Management District

Leo Akins, Forest River

Kim Alexander, Mow Better

Meredith Alexander, CALSTART

Glenn Amber, Westerbeke Corporation

APPEARANCES CONTINUED

ALSO PRESENT:

Dr. Ron Askeland, San Diegans for Sustainable, Equitable,
and Quiet Equipment in Landscaping(SD-SEQUEL)

Andrew Baer, Tiffin Motorhomes

Daniel Barad, Sierra Club California

Will Barrett, American Lung Association

Matthew Blaine, California Mountain Biking Association

Casey Bliss, Bliss Power Lawn Equipment

Alan Bonifas, All Spray

Andrew Bray, National Association of Landscape
Professionals

Jordan Brinn, Natural Resources Defense Council

Greg Brodsky, Cleaning Equipment Trade Association

Jeff Brown, Amador County Supervisor

Kevin Brown, Manufacturers of Emission Controls
Association

Linda Burdette, Family Motor Coach Association

Jeff Burian, Forest River

Elizabeth Burns, Zone 24 Landscaping

Todd Campbell, California Natural Gas Vehicle Coalition

Michael Carroll, Portable Generator Manufacturers
Association

Jeff Coad, Briggs & Stratton

Donald Cochran, Northwood Manufacturing and Outdoors RV

Steven Colome

APPEARANCES CONTINUED

ALSO PRESENT:

Ted Davis, Bay Area Airstream Adventures, South Bay
Airstream Adventures

Mickey Donohue

Sean Edgar, Western States Trucking Association, Clean
Fleets

Gary Enyart, Cummins

Joel Ervice, Regional Asthma Management and Prevention

Gabe Foo, Gardenland Power Equipment

Darrel Friesen

Michael Geller, Manufacturers of Emission Controls
Association

Sandra Giarde, California Landscape Contractors
Association

Erin Gilbert, Pacific Crest Trail Association

Ben Granholm, Western Propane Gas Association

Patricia Hanz, Truck and Engine Manufacturers Association

Davis Harper, The Climate Center

Phil Ingrassia, The National RV Dealers Association,
California RV Dealers Association

Jibiana Jakpor, American Lung Association Volunteer

Dr. Karen Jakpor, American Lung Association Volunteer

Thomas Jelenic, Pacific Merchant Shipping Association

Dave Johnston, El Dorado Air Quality Management District

Tom Jordan, San Joaquin Valley Air Pollution Control
District

APPEARANCES CONTINUED

ALSO PRESENT:

Greg Knott, Outdoor Power Equipment Institute

Michael Lewis, Construction Industry Air Quality Coalition

Katie Little, California Farm Bureau Federation

Daniel Mabe, American Green Zone Alliance

Bill Magavern, Coalition for Clean Air

Casey McGrath, Pacific Stihl

John McKnight, National Marine Manufacturers Association

Casey Meelker, Hydro Tek

Greg Mitchell, UCI Fuel Systems

Michael Ochs, RV Industry Association

Jim O'Connell, Hotsy Pacific

Peter Okurowski, Association of American Railroads

Robert Olma, Andreas Stihl

Ronnie Raddigan

Leela Rao, Port of Long Beach

R. Calvin Rasmussen, Royce Industries

Chad Reece

Sarah Rees, South Coast Air Quality Management District

Michael Ricketts, Hotsy of Southern California

Erin Rodriguez, Union of Concerned Scientists

Shari Rodriguez

Mark Rosenbaum, Mike Thompson's RV Superstores

APPEARANCES CONTINUED

ALSO PRESENT:

Laura Rosenberger Haider

Mariela Ruacho, American Lung Association

Alex Salazar, Groundcare Landscape Company

Matt Schrap, Harbor Trucking Association

Randy Sherman, Zama Group

Chris Shimoda, California Trucking Association

Matthew Spendlove, Next-Gen Power Systems

Tammy Stafford, Harbor Freight Tools

Tia Sutton Sysounthorn, Truck and Engine Manufacturers Association

David Tenney

Eric Tower

Mike Tunnell, American Trucking Association

Ed Ward, Valley Pacific Petroleum

Jimmy Welch, Cleaning Equipment Trade Association

Joani Woelfel, Far West Equipment Dealers Association

Todd Woelfer, Thor Industries

Eric Woodruff, Generac Power Systems

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PROCEEDINGS

CHAIR RANDOLPH: All right. Good morning. The December 9th, 2021, public meeting of the California Air Board will come to order.

Board Clerk, would you please call the roll

BOARD CLERK ESTABROOK: Yes. Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK ESTABROOK: Mr. De La Torre?

BOARD MEMBER DE LA TORRE: Here.

BOARD CLERK ESTABROOK: Mr. Eisenhut?

BOARD MEMBER EISENHUT: Yes, here.

BOARD CLERK ESTABROOK: Supervisor Fletcher?

BOARD MEMBER FLETCHER: Fletcher here.

BOARD CLERK ESTABROOK: Senator Florez?

BOARD MEMBER FLOREZ: Florez present

BOARD CLERK ESTABROOK: Assemblymember Garcia?

Ms. Hurt?

BOARD MEMBER HURT: Hurt present.

BOARD CLERK ESTABROOK: Mr. Kracov?

BOARD MEMBER KRACOV: Here.

BOARD CLERK ESTABROOK: Senator Leyva?

SENATOR LEYVA: Here.

BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

Dr. Pacheco-Werner?

Mrs. Riordan?

1 BOARD MEMBER RIORDAN: Here.

2 BOARD CLERK ESTABROOK: Supervisor Serna?

3 BOARD MEMBER SERNA: Here.

4 BOARD CLERK ESTABROOK: Professor Sperling?

5 BOARD MEMBER SPERLING: Here.

6 BOARD CLERK ESTABROOK: Ms. Takvorian?

7 BOARD MEMBER TAKVORIAN: Here.

8 BOARD CLERK ESTABROOK: Vice Chair Berg?

9 VICE CHAIR BERG: Here.

10 BOARD CLERK ESTABROOK: Chair Randolph?

11 CHAIR RANDOLPH: Here.

12 BOARD CLERK ESTABROOK: And Dr. Pacheco-Werner, I
13 did see your video. I think you're having some audio
14 problems, but I'll mark you as here.

15 And, Madam Chair, we have a quorum.

16 CHAIR RANDOLPH: Thank you.

17 In accordance with Assembly Bill 361, we are
18 conducting today's meeting remotely using Zoom with public
19 participation options available both by phone and in Zoom.
20 A closed captioning feature is available for those of you
21 joining us in the Zoom environment. In order to turn on
22 subtitles, please look for a button labeled, "CC", at the
23 bottom of the Zoom window, and shown in the example on the
24 screen now. I would like to take this opportunity to
25 remind everyone to speak clearly and from a quiet

1 location, whether you are joining us in Zoom or calling in
2 by phone.

3 Interpretation services will be provided today in
4 Spanish and Punjabi. If you are joining us using Zoom,
5 there is a button labeled, "Interpretation", on the Zoom
6 screen. Click on that interpretation button and select
7 Spanish or Punjabi to hear the meeting in either of those
8 two languages.

9 (Interpreter translated in Spanish)

10 (Interpreter translated in Punjabi)

11 CHAIR RANDOLPH: I will now ask the Board Clerk
12 to provide more details on today's procedures.

13 BOARD CLERK ESTABROOK: Thank you, Chair. Good
14 morning, everyone. My name is Katie Estabrook and I am
15 one of the Board clerks here, and I will provide some
16 information on how public participation will be organized
17 for today's meeting. If you wish to make a verbal comment
18 on one of the Board items or during the open comment
19 period at the end of today's meeting, you must be joining
20 using Zoom webinar or calling in by phone.

21 If you are currently watching the webcast on
22 CAL-SPAN but you wish to comment, please register for the
23 Zoom webinar or call in. Information for both can be
24 found on the public agenda for today's meeting. To make a
25 verbal comment, we will be using the raise-hand feature in

1 Zoom. If you wish to speak on a Board item, please
2 virtually raise your hand as soon as the item has begun to
3 let us know you wish to speak. To do this, if you are
4 using a computer or tablet, there is a raise hand button.
5 If you are calling in on the telephone, dial star nine to
6 raise your hand.

7 Even if you previously indicated which item you
8 wished to speak on when you registered for the webinar,
9 you must raise your hand at the beginning of the item, so
10 that you can be added to queue and so that your chance to
11 speak will not be skipped.

12 If you will be giving your verbal comment in
13 Spanish or in Punjabi and require a interpreter's
14 assistance, please indicate so at the beginning of your
15 testimony and one of our translators will assist you.

16 During your comment, please pause after each
17 sentence to allow for the interpreter to translate your
18 comment into English. When the comment period starts, the
19 order of commenters will be determined by who raises their
20 hand first. I will call each commenter by name and will
21 activate each commenter's audio when it is their turn to
22 speak. For those who are calling in by phone, I will
23 identify you by the last three digits of your phone
24 number. We will not show a list of commenters, however I
25 will be announcing the next three or so commenters in the

1 queue, so you are ready to testify and know who's coming
2 up next. Please note that you will not appear by video
3 during your testimony. I would also like to remind
4 everyone to please state your name for the record before
5 you speak. This is important in the remote meeting
6 setting, especially those calling in by phone to testify
7 on an item.

8 We will have a time limit for each commenter.
9 The general time is three minutes, though this can change
10 at the Chair's discretion. During public testimony, you
11 will see a timer on the screen. For those calling in by
12 phone, we will run the timer and let you know when you
13 have 30 seconds left and when your time is up. And if you
14 do require Spanish or Punjabi interpretation for your
15 comments, your time will be doubled.

16 If you wish to submit written comments today,
17 please visit CARB's send-us-your-comments page or look at
18 the public agenda on our webpage for links to send those
19 documents electronically. Comments will be accepted on
20 each item until the Chair closes the record for that item.
21 If you experience technical difficulties, please call
22 (805)772-2715, so that an IT person can assist you. This
23 number is also on the public agenda.

24 Thank you. I'll turn it back to you Chair
25 Randolph.

1 CHAIR RANDOLPH: Thank you. The first item on
2 today's agenda is item number 21-13-2. Proposed
3 amendments to the Small Off-Road Engine Regulations:
4 Transition to Zero Emissions. If you wish to comment on
5 this item, please click the raise-hand button or dial star
6 nine now. We will call on you when we get to the public
7 comment portion of the item.

8 For our consideration today is a proposal to
9 amend CARB's existing evaporative and exhaust emission
10 regulations for small off-road engines, or SORE. SORE are
11 a significant source of oxides of nitrogen and reactive
12 organic gas emissions statewide. Smog-forming emissions
13 from these engines have decreased by 50 percent since 2000
14 as a result of regulations and increasing adoption of
15 zero-emission equipment.

16 Despite this progress, current smog-forming
17 emissions from SORE exceed those from light-duty passenger
18 cars, and without further regulatory action, emissions
19 from SORE are expected to increase. Transitioning to
20 zero-emission technology is critical to helping protect
21 public health, meeting the emissions reductions expected
22 under the 2016 State Strategy for the State Implementation
23 Plan, and achieving the goal of Governor Newsom's
24 Executive Order N-79-20 to transition off-road vehicles
25 and equipment operations to 100 percent zero-emission by

1 2035, where feasible.

2 In addition, the Legislature recently passed, and
3 Governor Newsom signed into law, AB 1346, which requires
4 CARB to adopt cost effective and technologically feasible
5 regulations by July 1st 2022 to prohibit engine exhaust
6 and evaporative emissions from new small off-road
7 equipment.

8 Mr. Corey, would you please introduce the item?

9 EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.
10 Small off-road engines are spark-ignition engines rated at
11 or below 19 kilowatts used primarily to power lawn and
12 garden equipment, portable generators, and other types of
13 small off-road equipment. Currently, there are
14 approximately 15.4 million small off-road engines in
15 California producing about 141 tons per day of
16 smog-forming emissions.

17 Current SORE emission regulations are not as
18 stringent as emission regulations for other engines or
19 vehicles. Operating a commercial leaf blower for one hour
20 can emit as much ozone-forming pollution as driving a new
21 light-duty passenger car about 1,100 miles, approximately
22 the distance from Los Angeles to Denver, more than 15
23 hours of drive time.

24 Also, current compliance testing shows ongoing
25 low rates of compliance. Thirty-nine percent of

1 evaporative emission -- evaporative families tested by
2 CARB in recent years have failed, further highlighting the
3 need to move to zero-emission technologies as quickly as
4 possible.

5 Staff updated the Board at the November 2018
6 Board hearing on progress with zero-emission technologies
7 and potential pathways to 100 percent zero-emission
8 equipment in California. At that time, we told the Board
9 that we'd be back in a couple of years with a proposal for
10 further reducing SORE emissions and transitioning to 100
11 percent zero-emission equipment.

12 Today, you'll hear staff's proposal to amend
13 existing SORE regulations to include a two-phased approach
14 to setting emission standards to zero in order to
15 accelerate the transition to zero-emission SORE equipment.
16 Under the proposed amendments, SORE will be produced for
17 several years to come especially for power generation.
18 For that reason, staff's proposal also includes updates to
19 the SORE regulations to better reflect real world
20 operating conditions, ensure expected emission reductions
21 are achieved under the emission standards, and harmonize
22 with some recent updates to federal test procedures to
23 reduce the burden on industry by preventing unnecessary
24 duplicative certification testing.

25 The proposed amendments would result in

1 significant health benefits for Californians, including
2 residents of disadvantaged and low-income communities and
3 communities of color that experience the highest
4 cumulative exposure burdens and disproportionate health
5 impacts.

6 Notably, there will be direct benefits to
7 equipment users who no longer have to breathe emissions
8 from the engines or fumes from gasoline and oil when using
9 zero-emission equipment.

10 I'll now ask Jenna Ostad of the Monitoring and
11 Laboratory Division to give the staff presentation.

12 Jenna.

13 (Thereupon a slide presentation.)

14 MLD AIR POLLUTION SPECIALIST OSTAD: Thank you,
15 Mr. Corey. Good morning, Chair Randolph and members of
16 the Board. My name is Jenna Ostad and I am an Air
17 Pollution Specialist in CARB's Small Off-Road Engines
18 Program.

19 Today, I will be presenting staff's proposed
20 amendments to the Small Off-Road Engine regulations with
21 the goal to transition this category to zero emissions. I
22 thank you for the opportunity to discuss this proposal.

23 --o0o--

24 MLD AIR POLLUTION SPECIALIST OSTAD: As you know,
25 the State of California and CARB have several ambient air

1 quality standards, targets, and goals to meet over the
2 next 10 to 15 years. These are the driving forces for the
3 proposed amendments and include:

4 Achieving needed emission reductions from small
5 off-road engines as committed to in the 2016 State
6 Implementation Plan Strategy;

7 Meeting the goal in Governor Newsom's Executive
8 Order N-79-20 to transition off-road vehicles and
9 equipment operations to 100 percent zero emission by 2035
10 where feasible, and;

11 Complying with the requirement in Assembly Bill
12 1346 to adopt cost-effective and technologically feasible
13 regulations by July 1st, 2022 to prohibit engine exhaust
14 and evaporative emissions from new small off-road engines.

15 Other Health and Safety Code provisions require
16 CARB to achieve the maximum degree of emission reductions
17 possible from mobile sources.

18 --o0o--

19 MLD AIR POLLUTION SPECIALIST OSTAD: Before I
20 describe the proposed amendments here is a brief
21 description of the category. Small off-road engines
22 referred to throughout this presentation as SORE are
23 spark-ignition engines with rated power at or below 19
24 kilowatts or 25 horsepower used in non-stationary
25 equipment.

1 SORE are primarily used in lawn and garden
2 equipment, including lawn mowers, leaf blowers, trimmers,
3 and small chainsaws, such as those shown here. Other
4 small off-road equipment, such as portable generators and
5 specialty vehicles, are often powered by SORE.

6 --o0o--

7 MLD AIR POLLUTION SPECIALIST OSTAD: There is a
8 substantial population of equipment that use small engines
9 and are not subject to CARB's regulations for SORE,
10 because the federal Clean Air Act preempts states from
11 regulating them. These are new engines used in
12 construction or farm equipment or vehicles under 175
13 horsepower. Typical examples of equipment that are not
14 subject to the SORE regulations include larger chainsaws,
15 primarily used for timber harvesting, and some brush
16 cutters primarily used in agriculture as shown here.

17 In addition, all stationary equipment, such as
18 the stationary generator shown here, and equipment using
19 diesel engines, such as the riding mower shown here are
20 not part of the SORE category and would not be affected by
21 the proposed amendments.

22 --o0o--

23 MLD AIR POLLUTION SPECIALIST OSTAD: As a
24 reminder, CARB sets the emission standards and
25 certification requirements for the production and sale of

1 new small off-road engines. CARB is not proposing to
2 regulate the use of SORE equipment after consumers
3 purchase it, so people can continue using and repairing
4 their existing equipment.

5 --o0o--

6 MLD AIR POLLUTION SPECIALIST OSTAD: CARB
7 regulations have helped reduce emissions from SORE for
8 nearly 30 years. The Board first adopted regulations for
9 SORE in December 1990. These were set to go in effect in
10 two tiers. Tier 1 was set for model years 1994 through
11 '98 and called for a three to 55 percent reduction in
12 exhaust emissions.

13 Tier 2 is set for model years 1999 and beyond and
14 was expected to result in a significant transition to
15 electric equipment, but those emission standards were
16 relaxed and delayed to allow for more time for
17 manufacturers to develop lower emitting engines and more
18 powerful zero-emission equipment.

19 The Board first -- the Board adopted the first
20 evaporative emission standards for SORE in 2003 and an
21 emission reduction credit program for professional level
22 zero-emission equipment, or ZEE in 2008. This expanded on
23 existing emission reduction credit programs that provide
24 flexibility for manufacturers in meeting emission
25 standards. These programs are similar to other CARB

1 emission reduction credit programs.

2 Most recently, the Board adopted amendments to
3 the evaporative emission regulations in 2016. At the
4 time, testing suggested less than 50 percent compliance
5 with the existing emission standards, so the amendments
6 included measures to increase accountability for
7 manufacturers and better ensure CARB could do enforce the
8 emission standards.

9 Three years ago, staff updated the Board on
10 zero-emission technologies and potential pathways to 100
11 percent ZEE in California. At that time, staff told the
12 Board that we would be back with a proposal for further
13 reducing SORE emissions and transitioning to 100 percent
14 ZEE. And we are here today with a proposal to accomplish
15 those goals.

16 --o0o--

17 MLD AIR POLLUTION SPECIALIST OSTAD: CARB
18 regulations have reduced smog-forming emissions from SORE
19 by 50 percent since 2000. However, SORE emissions are
20 expected to increase this decade. SORE will account for
21 an increasing proportion of smog-forming emissions in
22 California in the coming years. There are more than 15
23 million SORE and preempt small engines in California
24 emitting 141 tons per day of smog-forming reactive organic
25 gases and oxides of nitrogen. These emissions exceed

1 those from light-duty passenger cars in part because
2 regulations for SORE have not been as stringent as
3 regulations for cars.

4 Some emissions are expected to increase as
5 populations -- California's population grows and are
6 forecast to be nearly twice those from light-duty
7 passenger cars in 2031. Reducing emissions from SORE is
8 essential to attain ambient air quality standards and
9 protect the health and welfare of all California
10 residents.

11 --o0o--

12 MLD AIR POLLUTION SPECIALIST OSTAD: ZEE have
13 been available for many equipment types for decades.
14 Today, the level of performance, number of brands, and
15 number of equipment options has rapidly increased to the
16 point where for most jobs, a hundred percent ZEE
17 operations is now feasible.

18 ZEE available today have many of the same
19 characteristics as their SORE equipment counterparts. For
20 years, ZEE manufacturers have marketed their equipment as
21 having equivalent performance to SORE equipment. More
22 recently, manufacturers are marketing some ZEE as having
23 superior performance to SORE equipment. Manufacturers are
24 innovating rapidly and there are more than 42 brands of
25 ZEE on the market.

1 Stores are increasing space for ZEE and
2 decreasing space for SORE in response to consumer demand.
3 A recent public industry study by The Farnsworth Group
4 found that ZEE accounted for 27 percent of equipment
5 purchased by professional landscapers in 2020, versus 21
6 percent in 2018, and three percent before 2017.

7 CARB have -- CARB staff have collaborated with
8 manufacturers to arrange ZEE demonstrations at various
9 locations in California. Professional users have shown
10 wide acceptance of ZEE after participating in these
11 demonstrations. Transitioning SORE equipment to ZEE will
12 achieve the maximum technologically feasible emission
13 reductions to attain ambient air quality standards at the
14 earliest date as required by California law.

15 --o0o--

16 MLD AIR POLLUTION SPECIALIST OSTAD: Emission
17 reductions and improved air quality are important benefits
18 of a transition to ZEE for all Californians, but there
19 direct benefits to users as well. For example, users do
20 not have to breathe emissions from engines or fumes from
21 gasoline and oil when using ZEE. Equipment operator's
22 exposure to toxic air contaminants, such as benzene from
23 SORE, would also be eliminated when using ZEE.

24 In addition, the Consumer Product Safety
25 Commission notes that from 2016 through 2018, there were

1 an average of 99 carbon monoxide poisoning deaths
2 nationally from engine-driven tools each year.
3 Eighty-five percent of those deaths were attributed to the
4 use of a generator.

5 Carbon monoxide poisoning deaths and injuries
6 from inhalation of SORE equipment exhaust could be
7 prevented by using ZEE. Chronic occupational exposure to
8 noise from SORE has been shown to be correlated with an
9 increased risk for hypertension. ZEE are generally
10 significantly quieter than SORE, which reduces noise for
11 operators and bystanders. This can allow landscaping
12 professionals to operate equipment near occupied buildings
13 without disturbing the occupants, giving them more
14 flexibility in completing their work. Equipment owners
15 can save money over time by purchasing ZEE due to savings
16 on gasoline and maintenance costs, transitioning to zero
17 emissions will better ensure we can achieve the needed
18 improvements in air quality and public health.

19 --o0o--

20 MLD AIR POLLUTION SPECIALIST OSTAD: I'll now
21 describe some highlights of staff's proposal. The
22 proposed amendments include: setting all new SORE
23 emission standards to zero in two phases with a longer
24 phase-in schedule for portable generators; expanding the
25 existing emission reduction credit programs; adding a new

1 tiered emission reduction credit program for zero-emission
2 generators; and making other updates to the SORE
3 regulations and test procedures to better reflect
4 real-world operating conditions and hold manufacturers
5 accountable.

6 --o0o--

7 MLD AIR POLLUTION SPECIALIST OSTAD: We recognize
8 the transition to ZEE will be a big change for many
9 landscapers. It is important to note that people can
10 continue using their -- and repairing their equipment
11 until the end of its life. Staff expects that a
12 landscaping business would not need to purchase a full
13 suite of ZEE at once, thereby avoiding a significant
14 one-time cost to transition into ZEE.

15 Rather, staff expects landscaping businesses
16 would replace their equipment with ZEE as it breaks or is
17 replaced for other reasons. Businesses will need to
18 adjust operations such as charging batteries instead of
19 making trips to gas stations to fill gas cans. Within the
20 first few years of owning ZEE, many landscapers will
21 likely save money due to decreasing fuel, maintenance, and
22 repair costs.

23 --o0o--

24 MLD AIR POLLUTION SPECIALIST OSTAD: Since 2018,
25 CARB has operated a ZEE demonstration project called the

1 ZEE Roadshow to increase awareness of ZEE among
2 landscaping professionals. It includes several brands of
3 zero-emission lawn and garden equipment designed for
4 professional use. Participation provides landscaping
5 professionals with an opportunity to overcome
6 misconceptions and use ZEE without purchasing it.
7 Landscaping crews receiving the ZEE Roadshow have included
8 theme parks, colleges and universities, school districts
9 and municipal organizations. The response has been
10 overwhelmingly positive with nearly all crews finding at
11 least one ZEE type that they preferred over SORE
12 equipment. After hosting the ZEE Roadshow, several
13 organizations have purchased some pieces of ZEE and the LA
14 School District has purchased over 800 pieces of ZEE.

15 --o0o--

16 MLD AIR POLLUTION SPECIALIST OSTAD: The first
17 element of staff's proposal we will look at is setting
18 emission standards for new SORE to zero in two phases.
19 The first phase starts in model year 2024 when the
20 emissions standards for new SORE used in all equipment,
21 except portable generators, would be zero. Manufacturers
22 are current -- currently have the flexibility to earn and
23 use credits to certify some equipment to emission levels
24 below the standards and certify other equipment to
25 emission levels above the standards. This existing

1 flexibility will allow manufacturers to continue making
2 SORE equipment after model year 2024.

3 As a reminder, CARB does not regulate the use of
4 CARB-certified SORE equipment owned by users. Although
5 many cities and homeowner associations in California
6 prohibit the use of SORE equipment, dozens of communities
7 already benefit from reduced exposure to emissions from
8 SORE and transitioning to ZEE statewide will ensure that
9 they are not the only communities benefiting.

10 Emission standards for portable generator engines
11 would be more stringent but not zero. Non-emission --
12 non-zero emission standards for portable generator engines
13 starting in 2024 will provide four more model years for
14 the zero-emission generator market to develop further,
15 while still substantially reducing emissions from new
16 portable generators.

17 --o0o--

18 MLD AIR POLLUTION SPECIALIST OSTAD: The second
19 phase in the transition to zero emissions would be
20 implemented after the zero-emission generator market has
21 had more time to mature. In model year 2028, the emission
22 standards for portable generator engines would be zero.
23 This longer phase-in schedule for generator engines would
24 allow time for zero -- the zero-emission generator mark --
25 manufacturers to develop models with more energy storage

1 and power delivery.

2 Manufacturers will be able to earn some emission
3 reduction credits through model year 2027 and use banked
4 credits as late as model year 2032. This means
5 gas-powered generators could be certified through model
6 year 2032 and offered for sale in subsequent years.

7 --o0o--

8 MLD AIR POLLUTION SPECIALIST OSTAD: Portable
9 generators are unique compared to other small off-road
10 equipment. They generate electricity for back-up power
11 and other uses when it is not possible to plug devices
12 into the grid. They are also typically used more
13 extensively than other SORE equipment and account for a
14 fifth of all smog-forming emissions from SORE, the highest
15 of any equipment type.

16 There are many zero-emission generators available
17 at a wide range of prices to meet users' needs. For
18 example, some products can power a refrigerator, lights, a
19 laptop, and two cell phones for more than a day. However,
20 staff recognized more time is needed to allow
21 manufacturers to develop zero-emission generators with
22 greater energy storage and power delivery. We propose a
23 new emission reduction credit program to incentivize early
24 production of zero-emission generators and rapid
25 development of the market. The program would grant the

1 greatest credit benefits to manufacturers who develop
2 zero-emission generators with the greatest energy storage
3 and power delivery.

4 The decision-making process when purchasing a
5 portable generator may include a number of factors such as
6 noise, safety, and power. Staff is working on a web tool
7 that will assist people to identify the benefits of
8 zero-emission generators and determine what type of
9 generator will meet their needs.

10 --o0o--

11 MLD AIR POLLUTION SPECIALIST OSTAD: Next, I'll
12 discuss expanding the existing emission reduction credit
13 programs. Emission reduction credit programs have been
14 available for SORE since model year 2000 and have given
15 manufacturers flexibility in meeting the emission
16 standards.

17 First, they allow manufacturers to average
18 emissions across engine or evaporative families, so some
19 engines can have emission rates above the emission
20 standards, if others have emission rates below the
21 emission standards.

22 Second, credits can be banked for use in future
23 years up to five years after they were earned. For
24 exhaust emissions, manufacturers can trade credits, so a
25 manufacturer who has more credits than it needs, can sell

1 some credits to a manufacturer who has less than it needs.

2 Staff recommends allowing trading of evaporative
3 emission credits, as well to further incentivize the
4 production of ZEE and ease the transition for
5 manufacturers. As I mentioned previously, although
6 emission standards of zero will be implemented starting in
7 model year 2024, some banked credits may be used as late
8 as model year 2032 to continue production of SORE
9 equipment.

10 --o0o--

11 MLD AIR POLLUTION SPECIALIST OSTAD: To finish
12 the summary of staff's proposal, I'll describe a few more
13 items. The proposed amendments include changes to ensure
14 that SORE sold and used in California will comply with the
15 emission standards throughout their lifetime. Some
16 examples of these changes include:

17 Setting emissions durability periods to the
18 longest of the current options, which more accurately
19 reflects the actual lifetime of SORE equipment;

20 Reducing the number of engines to test to make an
21 initial determination of compliance for exhaust emissions
22 to enable an increase in compliance testing; updating the
23 exhaust test procedures to reflect amendments to the
24 federal test procedures made since CARB's procedures were
25 adopted;

1 Adding new checks for fuel spills or leaks, and;
2 Removing the variance provision.

3 This will require all manufacturers to comply
4 with the regulations. The proposal to allow trading of
5 evaporative emission credits would alleviate the need for
6 variances.

7 --o0o--

8 MLD AIR POLLUTION SPECIALIST OSTAD: Staff's
9 proposal was developed through an extensive public
10 process. Starting in 2017, CARB contracted with
11 California State University, Fullerton to conduct an
12 intensive survey of households, landscapers, and other
13 businesses on their ownership and use of small off-road
14 equipment and ZEE.

15 Throughout survey development, staff met with and
16 incorporated feedback from the SORE Working Group, which
17 includes manufacturers, trade associations, government
18 agencies, individuals, and environmental organizations.

19 CARB staff have held three public workshops to
20 discuss regulatory concepts, the survey results, and draft
21 proposals with stakeholders. Staff held numerous other
22 meetings with stakeholders beginning in 2016 to discuss
23 the need and possible approaches to reduce emissions from
24 SORE. Stakeholders' input during and after these informal
25 discussions provided staff with useful information that

1 staff considered during the development of the proposal.
2 Staff also made changes to the proposal based on feedback
3 received in workshops and meetings and in response to
4 staff's solicitation for alternatives.

5 CARB staff has attended four conventions held for
6 landscapers in California. These conventions have
7 provided opportunities for staff to inform professional
8 landscapers about upcoming regulation changes and about
9 ZEE capabilities and availability. Finally, the public
10 process included running the ZEE Roadshow to loan
11 professional-grade, zero-emission landscaping equipment to
12 landscaping crews throughout California. Twenty-five
13 organizations have participated in the ZEE Roadshow since
14 2018.

15 --o0o--

16 MLD AIR POLLUTION SPECIALIST OSTAD: Staff's
17 proposal would result in significant emission reductions
18 of both oxides of nitrogen and reactive organic gases
19 beginning in 2024. In 2031, the emission reductions would
20 be 7.9 tons per day of oxides of nitrogen and 64.5 tons
21 per day of reactive organic gases. These would exceed the
22 expected emission reductions from SORE in the 2016 State
23 SIP Strategy and are necessary to help attain ambient air
24 quality standards and ensure maximum health benefits. The
25 proposed amendments would also achieve some of the

1 additional emission reductions needed from off-road
2 equipment to attain ambient air quality standards in the
3 South Coast Air Basin.

4 Under staff's proposal, staff projects 93 percent
5 of equipment subject to the SORE regulations would be ZEE
6 in 2035. This is close to the 100 percent zero-emission
7 goal in Governor Newsom's Executive Order. Some users
8 keep their equipment for many years, so replacing the
9 remaining SORE equipment with ZEE would take many
10 additional years. However, 99 percent of equipment
11 subject to the SORE regulations would be ZEE in 2043.

12 --o0o--

13 MLD AIR POLLUTION SPECIALIST OSTAD: In addition
14 to emission benefits, staff's proposal will yield
15 substantial economic and health benefits. The direct
16 costs through 2043 are estimated to be \$4 million -- \$4
17 billion, including more than \$10 billion on savings on
18 fuel, maintenance, and repair costs. State and local tax
19 and fee revenue would decrease by half a billion dollars.
20 The value of expected health benefits will far outweigh
21 these costs. Staff estimate almost 900 premature deaths
22 will be avoided through 2043.

23 The value of some of the health benefits is
24 expected to be almost \$9 billion, but that likely
25 underestimates the full value, since some benefits are

1 difficult to quantify. Overall, we estimate the proposed
2 amendments will have a net benefit of more than \$4 billion
3 through 2043.

4 --o0o--

5 MLD AIR POLLUTION SPECIALIST OSTAD: On October
6 9th, 2021, Governor Newsom signed AB 1346 into law. It
7 requires CARB to adopt cost effective and technologically
8 feasible regulations by July 1st, 2022 to prohibit engine
9 exhaust and evaporative emissions from new small off-road
10 engines produced on or after January 1st, 2024 or as soon
11 as feasible.

12 The bill requires the Board to consider emissions
13 from SORE in California, expected timelines for ZEE
14 development, increased demand for electricity from added
15 charging requirements for more ZEE, use cases of both
16 commercial and residential lawn and garden users, and
17 expected availability of zero-emission generators and
18 emergency response equipment.

19 The staff report discusses the technological
20 feasibility, but does not include a detailed analysis of
21 increased demand for electricity. Staff have described
22 the analysis in a technical support document that has been
23 included in the rulemaking record through a 15-day notice
24 package prior to the hearing.

25 Staff have estimated the proposal will result in

1 an insignificant increase in electricity demand. By
2 transitioning to zero emissions, staff estimate the
3 increases in electricity consumption will range from 0.01
4 percent in 2024 to 0.18 percent in 2043 relative to the
5 Energy Commission's projected consumption.

6 --o0o--

7 MLD AIR POLLUTION SPECIALIST OSTAD: Next, I'll
8 provide an overview of the comments we have received thus
9 far. Some commenters request to delay ZEE requirements,
10 but there are several reasons staff does not recommend
11 further delays. In general, there are feasible ZEE
12 alternatives for each type of SORE equipment today.
13 Allowing emissions to continue for SORE equipment that
14 have feasible zero-emission options would not be
15 consistent with State laws that require CARB to maximize
16 health benefits. Delays would also make it difficult to
17 attain ambient air quality standards.

18 Commenters have expressed concern over the lack
19 of availability, performance, and cost of zero-emission
20 generators. Staff's proposal gives more time for portable
21 generators to transition to zero emissions because they
22 are frequently used for back-up power. The new
23 zero-emission generator credit program will incentivize
24 the zero-emission generator market to mature and existing
25 equipment can continue to be used. We are committed to

1 closely monitor the zero-emission generator market,
2 including those used in recreational vehicles to ensure
3 successful implementation of the regulation.

4 Other have expressed concern over the
5 availability of equipment for emergency response and
6 wildfire mitigation. The equipment typically used by fire
7 departments and for wildfire mitigation are preempt and
8 not subject to the SORE regulation. However, the
9 regulations allow for police, and fire departments, and
10 other entities specializing in emergency response to
11 purchase emergency equipment powered by a non-California
12 certified engine upon approval of the executive officer.

13 --o0o--

14 MLD AIR POLLUTION SPECIALIST OSTAD: Commenters
15 request exemptions for specific categories. There are
16 many types of equipment that make up the SORE category and
17 exempting certain segments would have an impact on
18 emissions and health benefits. Many of these requests are
19 for equipment that are used extensively and produce
20 significant emissions. For example, professional
21 equipment, pressure washers, and portable generators
22 account for 45 percent of smog-forming emissions from
23 SORE. Professional grade ZEE is available today and our
24 proposal allows more time for the zero-emission generator
25 market to develop.

1 Others have expressed concern about costs and
2 performance of ZEE in batteries, including run time. ZEE
3 can have sig -- have higher up-front purchase costs, but
4 generally have much lower operational costs. Our analysis
5 found that performance of ZEE is similar to SORE equipment
6 in many cases. In addition, there is already an
7 impressive variety of ZEE available to meet the needs of
8 both residential and commercial users. Just as a user
9 will need to fill a fuel tank with gasoline or a mixture
10 of gasoline and oil periodically, the user will need to
11 swap the battery on ZEE when it is discharged. Batteries
12 come in a variety of sizes, including back-up -- backpack
13 batteries that can allow some equipment to run throughout
14 a whole workday.

15 --o0o--

16 MLD AIR POLLUTION SPECIALIST OSTAD: Commenters
17 raise the need for more funding to aid in the transition
18 to zero emissions. Staff are committed to working closely
19 with air districts to implement existing incentive
20 programs and will pursue opportunities for additional
21 funding for ZEE.

22 Many commenters have raised concern about the
23 health effects from exposure to emissions and nuisance
24 from noise produced by SORE. And many commenters have
25 expressed their support for a transition to ZEE as early

1 as 2023. Staff's proposal will greatly mitigate these
2 issues and is expected to reduce premature deaths.
3 Staff's proposal would transition the SORE category to ZEE
4 as soon as possible when considering technological
5 feasibility and cost effectiveness.

6 --o0o--

7 MLD AIR POLLUTION SPECIALIST OSTAD: Staff
8 believes some minor modifications to the proposal will
9 better ensure a successful transition to zero emissions.
10 Professional cleaners use pressure washers for sanitation.
11 They are often used in places where outlets are not
12 available to plug in a corded unit and have high power
13 demands. The staff report discusses some of the
14 challenges with zero-emission pressure washers, including
15 a lack of availability of cordless zero-emission pressure
16 washers. Based on information received from the
17 professional cleaning industry, staff believes allowing
18 more time for the pressure washers to transition to zero
19 emissions is appropriate. We suggest the same emission
20 standards proposed for generators for model years 2024
21 through 2027 be implemented for pressure washers with
22 engines 225 cubic centimeters or larger. Similarly, the
23 emission standards for model year 2028 and later would be
24 zero.

25 Manufacturers have expressed a desire to be able

1 to earn evaporative emission credits for engines with
2 displacement less than or equal to 80 cubic centimeters
3 before emission standards of zero are implemented for most
4 engines in model year 2024.

5 Under staff's proposal, generators may certify to
6 hot soak plus diurnal emission standards in model year
7 2022 or 2023 to earn credits. However, other engines with
8 displacement less than or equal to 80 cubic centimeters do
9 not currently have that option. We propose to allow
10 engines with displacement less than or equal to 80 cubic
11 centimeters to certify to the existing diurnal emission
12 standards through model 2023.

13 Staff believes additional clarifications will
14 help provide regulatory certainty to manufacturers and
15 other stakeholders.

16 Staff propose to clarify emission labeling and
17 warranty statement requirements, definitions, and the
18 applicability of evaporative emission regulations to
19 engines that use gaseous fuels, such as propane.

20 --o0o--

21 MLD AIR POLLUTION SPECIALIST OSTAD: Companies
22 and individuals will enjoy many benefits of using ZEE,
23 including saving money on fuel and maintenance and
24 enjoying clean and quiet operations. Incentives will be
25 important in helping overcome the higher up-front costs

1 for some equipment especially for small businesses.

2 The Legislature recognizes when they passed AB
3 1346, which requires CARB to make available funding to
4 trans -- to help the transition to zero emissions.
5 Consistent with this, SB 170, the Budget Act of 2021,
6 included \$30 million for incentives for small landscaping
7 businesses and sole proprietors to purchase ZEE.

8 Last month, you approved including this funding
9 in the clean off-road equipment, or CORE Program. Staff
10 are now beginning to work closely with air districts and
11 start the public process to implement the program with a
12 strong focus on outreach to engage sole proprietor
13 landscapers. Zero-emission generators will also be
14 eligible for incentives under the CORE Program.

15 The Carl Moyer Program includes incentives for
16 lawn mowers. The AB 617 Community Air Protection Program
17 includes incentives for lawn and garden equipment. And
18 the Clean Mobility and Schools Pilot Project includes
19 funding for zero-emission landscaping equipment. Three
20 schools were awarded funding and one has already purchased
21 ZEE.

22 Several air districts have existing incentive
23 programs for landscapers. These programs allow
24 landscapers to trade in their existing SORE equipment and
25 obtain a substantial rebate or discount on their purchase

1 of ZEE and they have received overwhelming response. Many
2 districts offer incentives on residential equipment as
3 well.

4 --o0o--

5 MLD AIR POLLUTION SPECIALIST OSTAD: Staff
6 recognizes the importance of communication and outreach
7 about regulations for SORE and their impacts on
8 landscapers, other small businesses, and rural
9 communities. Staff is aware of the need for additional
10 outreach to landscapers, particularly sole proprietors
11 about upcoming changes to the SORE equipment market and
12 for accessing incentive funding.

13 Rural residents may need more information about
14 generator options and assurance they can keep using their
15 equipment. We are working on the best ways to identify
16 and reach these businesses and individuals effectively,
17 including multi-lingual communication media. We believe
18 community-based organizations will be important partners
19 to effectively reach small businesses, equipment dealers,
20 repair shops, and equipment users. We will continue
21 operating the ZEE Roadshow, support local small business
22 demonstrations, and incorporate workforce development for
23 both landscapers and repair shops. Staff is also
24 committed to leveraging air district experience with
25 landscape equipment exchange programs as we implement

1 State incentive funds.

2 --o0o--

3 MLD AIR POLLUTION SPECIALIST OSTAD: In closing,
4 staff recommends that the Board approve the proposed
5 amendments to the Small Off-Road Engine regulations with
6 15-day changes. These amendments would transition engines
7 to zero-emission equipment in two phases with a longer
8 phase-in schedule for portable generator and higher power
9 pressure washer engines. The expansion of the existing
10 emission reduction credit programs would further
11 incentivize the production of ZEE and provide options for
12 manufacturers to continue making SORE in model year 2024
13 and beyond.

14 Adding a new tiered emission reduction credit
15 program would incentivize the production of zero-emission
16 generators, particularly those in the least developed
17 sector of the market and making other updates to the
18 regulations and test procedure would better reflect
19 real-world operating conditions and ensure expected
20 emission reductions are achieved.

21 These amendments are an important part of helping
22 to achieve ambient air quality standards and improve
23 public health and well-being in California. This
24 concludes our presentation. Thank you very much for your
25 time and consideration.

1 CHAIR RANDOLPH: All right. Thank you.

2 Before we move on to hear from the public, I
3 would like to invite the Assemblymember Berman, the author
4 of Assembly Bill 1346, to make a few remarks.

5 ASSEMBLYMEMBER BERMAN: Thank you, Chair
6 Randolph, for the opportunity to address the Board.
7 California is home -- as you all know, California is home
8 to the seven of the nation's ten most ozone-polluted
9 cities in the United States. And as you just heard,
10 gas-powered small off-road engines are an outsized
11 contributor to smog-forming pollution, now outpacing the
12 pollution from all passenger cars in California.

13 Every hour of operating a commercial leaf blower
14 equates to the smog-forming emissions of driving a car one
15 1,100 miles. These engines cause asthma,
16 cardiorespiratory disease, and increased cancer risk and
17 premature death. That's why I authored AB 1346, which
18 directs the Board to adopt a zero-emission standard for
19 new sales of small off-road engines as early as 2024.

20 With the passage and signature of AB 1346, the
21 Legislature and the Governor have indicated our support
22 for tackling this public health burden. It is important
23 to emphasize that the regulation is not a ban on use.
24 Nobody will have to give up or stop using equipment they
25 already own. The force of this regulation fall on

1 manufacturers to continue to produce clean equipment
2 moving forward.

3 In California and across the country, we know
4 that communities of color and low-income communities pay
5 the highest price for our reliance on fossil fuels. This
6 issue is no different. Workers who use gas equipment are
7 breathing in exhaust all day. Your own research concluded
8 that using gas-powered equipment could double the risk of
9 cancer for some users.

10 The regulation before you is an opportunity to
11 change this paradigm and prevent nearly 900 premature
12 deaths. Several cities, schools, and landscaping
13 businesses have already successfully transitioned to fully
14 zero-emission equipment on a commercial scale. More
15 powerful zero-emission products continue to come to market
16 representing 27 percent of the equipment purchased by
17 professional landscapers in 2020. Again, this regulation
18 only requires new equipment to be zero-emission, which
19 will allow businesses to gradually replace their
20 inventory. In recognizing that there are costs associated
21 with this change, the Legislature appropriated \$30 million
22 to support small landscaping businesses and transitioning
23 to clean equipment.

24 I urge the Board to be surgical in your
25 allocation of this funding to ensure that it goes where it

1 is most needed to small businesses. The Board should
2 partner with local air districts and conduct extensive and
3 relevant outreach to the landscaping community to ensure
4 the effectiveness of this program. The Legislature will
5 be monitoring implementation closely to make sure that the
6 program achieves our goal of providing meaningful and
7 targeted support to small landscaping businesses. I urge
8 you to adopt this regulation today. These are the
9 decisions we have to make if we're serious about reducing
10 our reliance on fossil fuels and leaving future
11 generations with healthier communities.

12 Thank you for your time.

13 CHAIR RANDOLPH: Thank you, Assemblymember
14 Berman. We appreciate your leadership on this issue and
15 sharing your thoughts.

16 We will now hear from the public who raised their
17 hand to speak on this item. We have, at this point, over
18 50 commenters, so we will be -- our time limit will be two
19 minutes per commenter. And I encourage you, as -- if you
20 hear other commenters make your same points, feel free to
21 associate yourself with their -- with their comments.

22 So I will have the -- wait. Hold on. I want to
23 make sure everybody knows -- well, the Board Clerk can
24 remind folks what they need to do to comment if they want
25 to get into the queue. After about 30 minutes of comment,

1 I'll be closing the queue. So if you want to speak, you
2 should make sure and raise your hand during that time.

3 Okay. Board Clerk, please call the first few
4 commenters.

5 BOARD CLERK ESTABROOK: Thank you, Chair. Our
6 first three commenters today will be Bill Magavern, David
7 Tenney, and then Jeff Coad.

8 Bill, I have activated your microphone. You can
9 unmute and begin your comment.

10 BILL MAGAVERN: Thanks. And good morning, Madam
11 Chair and Board members. This is Bill Magavern with the
12 Coalition for Clean Air. Quick on my finger with the
13 raise hand function this morning, so happy to be speaking
14 with you.

15 And we urge the Board to approve this rule with
16 no delay in the transition to zero-emission equipment. We
17 were pleased to support AB 1346 by Assemblymembers Berman
18 and Gonzalez. They've been such champions on this issue.
19 As Assemblymember Berman said, we need this rule to reduce
20 the smog that continues to plague our state.

21 We know that the current rules, while they've
22 reduced emissions, actually have not worked as well as
23 expected and compliance has not been close to a hundred
24 percent. And it's the workers who are most exposed to the
25 health damage that comes from burning fossil fuels in

1 these engines. We also, of course, need this in order to
2 have any hope of attaining national ambient air quality
3 standards.

4 We do think that as you move forwards, there will
5 be more incentive money needed and we'll be asking the
6 Legislature and the Governor for that. We agree that
7 robust outreach on the incentives is crucial and that
8 should include an element of workforce training for the
9 small landscaping companies.

10 But we urge you to go forward with no change in
11 the dates. The rule already allows for a gradual
12 transition. We know that battery technology is improving
13 rapidly. And, for generators, 2028 is already far away.
14 So there's plenty of time to adjust in that sector.

15 This has been a long and inclusive process. I
16 can remember workshops back when we were meeting in person
17 on this issue, as well as, of course, virtual meetings
18 since then. So we urge you to approve the rule today.
19 Thank you very much.

20 BOARD CLERK ESTABROOK: Thank you.

21 David Tenney, you can unmute and begin.

22 DAVID TENNEY: Ladies and gentlemen, I appreciate
23 the opportunity to speak with you. I own a 36-foot
24 gasoline-powered motorhome, which I pull my Jeep with to
25 go to Jeep rallies. We are often parked with no power

1 supply. I have installed a very up-to-date solar and
2 lithium battery system on my RV. We brought in the
3 industry's expert to do this.

4 This system cost over \$20,000 and will run only
5 one of my air conditioning units for four hours. If I
6 start the AC at 2 p.m., the batteries die about 6 p.m.
7 The solar system will not charge at night and takes eight
8 hours to recharge the next day. If the sun comes up at 6
9 a.m., that will get me ready to go at 2 p.m. again. That
10 is only four hours. I can make this work and if it's not
11 too terribly hot, but someone in a situation with a
12 medical device could not. A cloudy, foggy, or rainy day
13 stops this process completely.

14 PG&E has been cutting off power to some cities
15 for as much as two weeks. For many people, this is their
16 home and a permanent mounted generator is a need not a
17 recreational item. Roughly 20 percent of every RV we sell
18 goes to a full-time or extended stay user. This is driven
19 by retirement for some and cost of housing for others.
20 Some of these RVs are dependent on medical devices.

21 When the RV parks lose power as they often do,
22 the only way to run the oxygen tanks, CPAP machines,
23 wheelchair lift, refrigeration, and air conditioners is a
24 generator. Currently, there is no other way.

25 Our research shows there is nothing in the next

1 ten years or so that will appropriately replace the
2 generator in an RV. As technology advances, the generator
3 usage is already dropping, but it must not be eliminated
4 in 2028. There is not a replacement for many years after
5 that, that is cost effective or technologically feasible
6 as required.

7 This will severely impact employment and business
8 and will not help the environment even a little bit. This
9 will move over \$1 billion of revenue to bordering states.
10 Thank you for your time.

11 BOARD CLERK ESTABROOK: Than you.

12 Our next speaker will be Jeff Coad. After Jeff,
13 we will have R. Calvin Rasmussen, and then Leo Akins, and
14 Mariela Ruacho.

15 Jeff, you can unmute yourself and begin.

16 JEFF COAD: Thank you. My name is Jeff Coad and
17 I am the Vice President of Marketing and Product
18 Management Briggs & Stratton. At Briggs & Stratton our
19 stated position is that we are power agnostic, as today
20 and in the future, we will market and sell both internal
21 combustion engines and battery powered to our OEMs.

22 The purpose of my comments today are to help the
23 Board understand several challenges that a short timeline
24 to zero emissions poses for the market, both manufacturers
25 and small business owners.

1 First, from a product development perspective,
2 converting a product such as a large zero-turn mower from
3 gas to lithium battery powered is not just a matter of
4 replacing the engine with a battery. The development time
5 for each machine to convert from gas powered to an
6 electrified drivetrain can take two years for each OEM for
7 each product. Each conversion requires a significant
8 amount of human and financial investment. There are
9 upwards of 20 manufacturers in the commercial turf mowing
10 and turf care product categories alone, who would have to
11 convert their product lines by 2024, which is not
12 practical even on expedited timelines.

13 Second, from a perspective of small business
14 owners, such as commercial landscapers, the products in
15 the commercial space in particular have to perform at a
16 high level for a full eight-hour working day five to six
17 days per week. Because of this usage requirement, only
18 about one percent of the commercial market has adopted
19 battery-powered mowers or chore products due to several
20 issues, battery runtime, lack of infield charging options,
21 high cutting performance requirements, and the very high
22 price of electrified machines.

23 In summary, our position is not one of opposing a
24 move to zero emissions in California. However, the time
25 frame of 2024 creates unrealistic timelines for

1 manufacturers and commercial small businesses to convert
2 to products that meet zero emissions. We support the EMA
3 proposal, which provides for significant emission
4 reductions to meet SIP goals.

5 Thank you and we appreciate the opportunity to
6 raise these concerns.

7 BOARD CLERK ESTABROOK: Thank you.

8 And just a reminder to everyone that if you would
9 like to speak on this item, please raise your hand in Zoom
10 or dial star nine, if you are calling in by phone.

11 So our next speaker will be R. Calvin Rasmussen.
12 You may unmute and begin.

13 Calvin, are you there?

14 R. CALVIN RASMUSSEN: Sorry about that. Thank
15 you, staff and California Air Resources Board. I'm Calvin
16 Rasmussen, CEO of Royce Industries with operations in
17 Nevada, Idaho, Utah, and Colorado, and plans of expanding
18 with brick and mortar operations into California. We
19 started our company 38 years ago as a contract cleaner.
20 In other words, we take our industrial pressure washers to
21 wherever the work was, including very remote locations
22 that most time require the use of 25 horsepower or less
23 engines.

24 We are very interested in the proposed amendments
25 to the small off-road engine regulation, since it

1 potentially has a devastating impact on our business, just
2 like ours.

3 We strongly believe that as goes California, so
4 goes the country. On page 44 of proposed amendments,
5 ISOR, it is acknowledged that there are no battery-powered
6 pressure washers for professional use. It is also
7 acknowledged that 67 percent of residential pressure
8 washers are already zero-emission equipment. The Cleaning
9 Equipment Trade Association comments can be referred to
10 for additional details for why ZEE is not suitable for the
11 commercial, industrial, and professional segments.

12 Today, my company distributes industrial pressure
13 washers to the private sector, as well as local, county,
14 State, and federal agencies. These agencies use
15 industrial pressure washers to clean, disinfect, and
16 sanitize everything from homeless encampments to
17 playground equipment, from graffiti removal to disaster
18 cleanup.

19 Although, there are numerous other app --
20 critical applications for industrial pressure washers,
21 with the short time I have left, let me emphasize on one,
22 aquatic invasive species, specifically zebra and quagga
23 mussels. All California lakes, rivers, streams, and
24 aquifers are at risk of mussel infestation. As a result,
25 many California agencies, such as the Los Angeles

1 Department of Water and Power are required to use portable
2 trailer-mounted pressure washers located in remote boat
3 launch ramps and other inspection sites to aid in the
4 watercraft inspection and decontamination of these
5 invasive species.

6 I respectfully ask the Board to refer all -- the
7 proposed amendments back to staff to read, "cleaners, high
8 pressure", back to the preemption list and specify high
9 pressure washers in this definition to continue the
10 societal benefit to the state of California.

11 Thank you very much for your time and
12 consideration.

13 BOARD CLERK ESTABROOK: Thank you.

14 Leo Akins, you can unmute and begin.

15 LEO AKINS: Good morning and thank you for the
16 opportunity to speak. My name is Leo Akins. I'm a Senior
17 General Manager at Forest River, Inc. We're the second
18 largest recreational vehicle manufacturer in the world.
19 And many of my comments I would like to say that I mirror
20 David Tenney's comments. I can cut this relatively short,
21 but one of the additional points is is there are more new
22 RV buyers and more off-grid campers then ever before and
23 that number continues to grow.

24 With off-grid camping, there is not a feasible
25 way to recharge even with solar, due to the real estate on

1 the roof. So we are in agreement with what CARB is trying
2 to do with getting to zero emissions, but the timetable is
3 not feasible for us as a manufacturer. We are working
4 towards this, as I am our industry's chair for the solar
5 committee and a voting member on the lithium committee.
6 It's close to my heart to find these solutions, but we are
7 requesting that we urge the Board to consider pushing this
8 to 2035 or to reclassify RV generators as stationary as
9 they are mounted stationary on the RV and utilize
10 evaporative canisters as dictated by CARB.

11 Thank you very much.

12 BOARD CLERK ESTABROOK: Thank you.

13 Our next speakers will be Mariela Ruacho. After
14 Mariela will be Daniel Barad, Jimmy Welch, and Kim
15 Alexander.

16 Mariela, you may unmute and begin.

17 MARIELA RUACHO: Hi. My name is Mariela Ruacho
18 from the American Lung Association. We are in strong
19 support of this proposal and urge the Board to approve. I
20 want to start off by saying first that this is a health
21 issue and an equity issue. CARB needs to take action now
22 to reduce emissions from small off-road engine -- engines.

23 These engines are Now surpassing smog-forming
24 emissions from passenger vehicles and are expected to
25 double in the next 10 years with our proposed amendment.

1 In addition, to regional clean air benefits, workers using
2 this equipment are directly exposed to fumes and emissions
3 for long periods of time, and therefore suffer the most
4 from health impacts. It is important to note that the
5 proposed amendments do not require businesses to get rid
6 of their gas-powered engines.

7 Instead, the rule applies to the sale of new SORE
8 equipment by requiring manufacturers to phase-in
9 zero-emission equipment by 2024. There is more than
10 enough time to prepare the transition -- the transition of
11 this to not -- technology, especially when considering the
12 2028 timeline for generators. To date, CARB has received
13 guidance from both the Governor and the Legislature in
14 support of eliminating emissions from SORE by passing
15 Assembly Bill 1346 and the Governor's Executive Order
16 N-79-20.

17 We strongly support -- we strongly supported AB
18 1346 and are encouraged by CARB's work to implement the
19 law. I also want to note that this proposed policy
20 represents a commitment made in the 2016 SIP and allows
21 the Board's approval -- and follows the Board's approval
22 last month of the 30 million for incentives that are
23 available years before the rule goes into effect. We want
24 to also make sure that CARB prioritizes outreach and
25 support to small businesses to ensure they are notified

1 and able to apply for these incentives.

2 The Lung Association and 20 lung and medical
3 organizations have written in support of the Board
4 approving this rule today. And adopting this rule will
5 reduce smog-forming emissions and multiple health
6 benefits. We appreciate all the work CARB has done to
7 implement this policy in coming with the rule and we --

8 BOARD CLERK ESTABROOK: Thank you.

9 MARIELA RUACHO: Thanks.

10 CHAIR RANDOLPH: Thank you. That concludes the
11 time.

12 Daniel Barad, please unmute and begin.

13 DANIEL BARAD: Hello. Daniel Barad on behalf of
14 Sierra Club California and our half million members and
15 supporters throughout the state. We strongly support the
16 Small Off-Road Engine Rule and urge the Board to approve
17 it today.

18 Leaf blowers, lawn mowers, and other
19 gasoline-powered small off-road equipment have an
20 outside -- outsized emission and health impacts. Phasing
21 out polluting engines will substantially improve air
22 quality and public health. According to CARB staff,
23 through 2031, the proposed rule will reduce smog-forming
24 NOx emissions by 43 percent and result in the avoidance of
25 892 premature deaths, 438 fewer emergency room visits for

1 asthma, and 311 fewer hospitalizations for respiratory and
2 cardiovascular issues.

3 Zero emission models of equipment covered by this
4 rule are widely available today. These products are
5 clean, affordable, and do their jobs as well as their
6 polluting counterparts. In 2024, when this rule goes into
7 effect for most equipment, zero-emission options will be
8 even better. The staff has also allowed even more time
9 for this rule to apply to generators to ensure that this
10 rule delivers strong emission reductions, but is also
11 feasible for consumers.

12 Nothing in this rule prevents Californians from
13 using gas-powered equipment after the rule is implemented.
14 And the Legislature approved \$30 million in incentives to
15 help small landscaping businesses transition their tools
16 to zero-emission. This proposed rule is exceedingly
17 reasonable and will improve health for all Californians,
18 particularly those who regularly must operate this
19 equipment.

20 It will also bring us a small step closer to
21 slowing the climate crisis. We strongly urge you to
22 approve this rule. Thank you very much.

23 BOARD CLERK ESTABROOK: Thank you.

24 Jimmy Welch. Please unmute and begin.

25 JIMMY WELCH: Hello. I'm speaking in

1 representing the Cleaning Equipment Trade Association,
2 also known as CETA, also referencing back to what R.
3 Calvin Rasmussen was saying for other information.

4 We fully agree that cleaning and water -- as well
5 as water are essential. We all desire clean --
6 cleanliness, especially during this current COVID-19
7 pandemic, where everyone has created what some call the
8 new clean. We don't go out to eat at certain restaurants,
9 because we may not feel they're clean. We want a clean
10 environment.

11 Pressure washers provide this. And our
12 professional cleaning contractors do all types of work. A
13 lot of the work is done at nighttime. You don't even see
14 it, so -- but when you go into your store that day, your
15 place of business, you see a clean environment. Pressure
16 washers have been used to clean not only the buildings --
17 the government buildings in California, infrastructure, in
18 California for many applications, sometimes, like I say,
19 at nighttime, when you don't even see it, but you benefit
20 from it the next day.

21 We've also been beneficial in helping in cleaning
22 up with the homeless encampments, where we had to get rid
23 of hepatitis A and we could go in and clean. Now, the
24 other thing to remember is we also recover that water.
25 That's where the water savings comes in with us. So we

1 have to use engines, because we do not have power sources
2 available as we move down the streets cleaning, or we're
3 cleaning on bridges and, stuff or any type of
4 infrastructure, but this benefits California.

5 And what we want to do -- we want to thank -- I
6 do want to thank staff for working with us and listening
7 to our concerns, comments, and questions, and making the
8 revision to include us like they do for generators with
9 some extended date to allow our manufacturers to come up
10 with feasible dates to produce product that works for our
11 industry. This will allow our industry to continue
12 providing the social benefits the State of California
13 currently receives from our industry.

14 Thank you for your time.

15 BOARD CLERK ESTABROOK: Thank you.

16 Our next speaker will be Kim Alexander. After
17 Kim will be Linda Burdette, John McKnight, and Shari.

18 Kim, you may unmute and begin.

19 KIM ALEXANDER: Hi there. I'm Kim Alexander,
20 co-convener of Mow Better. We're a Sacramento-based
21 collaboration of stakeholders and neighborhood groups
22 working to phase out the use of gas-powered lawn
23 equipment. And we urge you to approve these proposed
24 amendments. There are an estimated 10.6 million pieces of
25 residential and commercial lawn care equipment currently

1 owned and operated in our State. And these regulations
2 will do nothing to impact any of that existing equipment.

3 No one is taking anyone's tools away. This is a
4 modest but important step to advance greater use of
5 cleaner, healthier, quieter equipment. Over two-thirds of
6 SORE engines are gas-powered lawn equipment. And this
7 greatly contributes to California's sad role as home to
8 seven of the top 10 most polluted cities in the nation.

9 In fact, we risk losing federal funding if we
10 continue to fail to meet national air quality standards.
11 And this is not an idle threat. We saw just last month,
12 the Biden administration blocked \$12 billion in federal
13 public transit funding because of a long-standing dispute
14 regarding the State's public pension laws.

15 Use of this lawn equipment causes numerous health
16 care problems too. Your own agency's study found that it
17 exposes operators to volatile organic compounds,
18 carcinogens for which there are no safe levels of
19 exposure. It also exposes people to extremely loud noise
20 above the relevant national and California ambient air
21 quality standards. And that persistent exposure causes
22 permanent hearing loss, which leads to other health
23 problems.

24 In this time of drought, and mega fires, the
25 Corona virus pandemic, and continuing poor air quality, we

1 need to change our lawn and landscaping culture. Adopting
2 these new regulations signals that California will
3 continue taking the lead, as we have done with electric
4 vehicles, to accelerate a shift toward cleaner, healthier,
5 small off-road engines.

6 Thanks.

7 BOARD CLERK ESTABROOK: Thank you.

8 Linda Burdette, you may unmute and begin.

9 LINDA BURDETTE: Good morning. I am Linda
10 Burdette and I am with the Family Motor Coach Association,
11 which represents over 135,000 members across the U.S. and
12 Canada. FMCA members own recreational vehicles, which
13 include motorhomes, fifth wheels, and travel trailers.

14 My concern with your proposed rule is that while
15 you exempt stationary generators used to power homes in an
16 emergency, you did not extend that exemption to those
17 which provide the same service to RVs. When I travel, I
18 may have to spend a night or two in an area with no
19 electric support, for instance on federal land. As soon
20 as I can, I'm heading to a campground where I can get
21 electrical hookups. But during that time with no
22 electricity, I need the generator for quality of life
23 support.

24 My CPAP, my refrigerator, my air conditioning, my
25 heat, they all need to work. That's when I rely on the

1 generator. I don't see any difference in my camping use
2 compared to the emergency generator sitting outside my
3 home, which kicks on if the power goes out to provide me
4 with those same support services.

5 I understand that with this proposal, you hope to
6 spur development of new zero-emission technologies and we
7 should be doing that whenever possible, but you can't spur
8 the impossible, even with the new ZEE technologies being
9 developed even when using the newest lithium batteries. I
10 don't see enough batteries being available or reasonably
11 installable to power a recreational vehicle just as your
12 exemption of home generator shows that we don't expect a
13 zero-emission home generator being completely developed
14 before 2028.

15 For these reasons, I would ask that you amend
16 your definition of small off-road engines to exempt those
17 generators used to power recreational vehicles.

18 Thank you.

19 BOARD CLERK ESTABROOK: Thank you.

20 And just a reminder that the Chair has requested
21 that if you would like to speak on this item, please raise
22 your hand or dial start nine within the next 10 minutes.

23 And so next we will hear from John McKnight. You
24 may unmute and begin.

25 JOHN MCKNIGHT: Okay. Good morning. My name is

1 John McKnight and thank you for the opportunity to testify
2 on behalf of the National Marine Manufacturers
3 Association. I urge the Board not to approve the staff
4 recommendation to ban permanent stationary marine
5 generators and direct staff to spend more time on this
6 section of the proposal. The reasoning is simple, there
7 are recreational boats where batteries and inverters can
8 equip to run electrical systems necessary to operate a
9 boat safely. Boat builders are not only investigating,
10 most of the boats that are sold in California do not have
11 generators.

12 But there are also recreational boats just like
13 you've heard from the RVs due to their size and
14 application that require a lot more electrical equipment.
15 A recreational boat, just like an RV, can have air
16 conditioning, ice makers, television, stereo, electric
17 toilets, Seakeepers for stability, bilge pumps for safety,
18 carbon monoxide detectors, smoke detectors, the list goes
19 on. None of them work, unless you have electricity.
20 Think of the energy equivalent to operate your home and
21 cut the wire coming in from the utility pole.

22 To put it in perspective, even if we were to take
23 a simple 3.5 kW gasoline generator and replace it with
24 batteries, we'd need 101 large-sized batteries. We're
25 figuring eight tons in batteries and \$97,000 in cost.

1 Here's the most important part though. The most
2 significant issue is that staff has not considered in this
3 proposal a replacement for a marine generator. If
4 somebody in the room here buys a boat today with a marine
5 generator, in 2029, and that generator fails, the proposal
6 that's out there right now would require the person to
7 scrap the boat. There's nothing in there. The generator
8 is integral to the boat. You can't just go in and put a
9 battery there and replace it. You need -- without a
10 generator, the boat is rendered useless.

11 So what we do -- we urge the Board to direct
12 staff to go back and take a look at these stationary
13 generators that are permanent to vehicles and vessels.
14 And we'll work with them to come back with a proposal that
15 takes all this into account. Thank -- thank you for your
16 time.

17 BOARD CLERK ESTABROOK: Thank you.

18 Our next speaker will be Shari. After Shari will
19 be Andrew Baer, a account indicated as Thor Industries
20 Training Room, and then Greg Mitchell.

21 Shari, you may unmute and begin.

22 Shari, are you there?

23 SHARI RODRIGUEZ: Sorry. I'm Shari Rodriguez,
24 one of the 600 plus outdoor power equipment dealers. My
25 concerns are not only will this bill impact our unit sales

1 with engines under 45 cc's, or 25 horsepower, which is all
2 mower, weed eaters, hedge trimmers, pull saws, and 50
3 percent of the blowers and chainsaws we currently sell at
4 our store, but it will affect all the parts and accessory
5 sales for each product, which subsidizes the lower unit
6 profit margin. I anticipated having to cut or close the
7 service department to our business. The service for
8 battery units is not the same as gas engines and are often
9 not affordable to repair. In our previous experience with
10 smaller, handheld cordless drills, for example, they were
11 not profitable to repair, thus it become a throw-away tool
12 to this society.

13 In retail, customers are paying sometimes more
14 than double the cost compared to a gas unit for a battery.
15 Due to the already low inventory on certain units, I don't
16 anticipate the manufacturers to be able to supply a
17 cordless product by the year 2024. I am not here to be
18 against environmental improvements, but would like the
19 Board to consider only restricting homeowner rated units
20 to be cordless or pick a type of unit to start with such
21 as the blower, or even more importantly meet with the
22 manufacturers on using their clean burning four-stroke gas
23 engines on more units and get rid of the dirty engines
24 with the emission credits.

25 We have collected feedback with some -- from some

1 of our commercial customers who bought battery units and
2 also have inverters on their trucks. They have enough
3 battery power to sustain the number of properties they
4 service in a day. To do that, they keep their trucks
5 running to charge their extra batteries for the next site.
6 I can't imagine how many vehicles will be kept running on
7 the job sites from the small to the large commercial
8 landscaper to cut back on the purchase of extra expensive
9 batteries.

10 I also would hate to see California, our dealers,
11 lose the sales of emergency services purchases to outside
12 California. And something else to be analyzed is the
13 storage compliant cost of disposing the dead batteries.
14 And just keep in mind that there's a lot of blue collar
15 workers and their families depend on the landscape
16 industry for their income. The large commercial companies
17 using the battery-powered units will collect the subsidies
18 being offered and the smaller two- to three-man companies,
19 which is a valued customer base, will be left struggling.

20 The OPE dealers have to be --

21 BOARD CLERK ESTABROOK: Thank you.

22 SHARI RODRIGUEZ: -- profitable to survive and to
23 continue to generate sales tax and payroll tax for the
24 state.

25 BOARD CLERK ESTABROOK: Thank you. That

1 concludes your time.

2 SHARI RODRIGUEZ: Thank you.

3 BOARD CLERK ESTABROOK: Andrew Baer, you can
4 unmute and begin.

5 ANDREW BAER: Yes, thank you for this
6 opportunity. My name is Andrew Baer with Tiffin
7 Motorhomes. We're a manufacturer of motorized
8 recreational vehicles. While our motorhome owner base is
9 varied and wide ranging, a large percentage of our users
10 are retired and fall in the 60- to 80-year old
11 demographic. These families have chosen the RV life style
12 to experience and enjoy travel while living in a home-like
13 setting.

14 Every week I spend some time at our service
15 center visiting with these owners and users to find out
16 how they utilize our product. An important part of this
17 lifestyle is the ability to continue medical treatment and
18 have the support of dependable power while camping.
19 Examples of this are oxygen generators, CPAP machines, and
20 even home dialysis.

21 The ability for these families to receive
22 treatment while enjoying our country and traveling is
23 critical to both them and our industry. I would ask that
24 you please consider amending this regulation to exclude
25 the permanently installed power generators we use in our

1 recreational vehicles.

2 Thank you.

3 BOARD CLERK ESTABROOK: Thank you.

4 Our next speaker is listed as Thor Industries
5 Training Room. Can you please state your name for the
6 court reporter and then you may begin.

7 TODD WOELFER: Hi. Yes. Thank you. My name is
8 Todd Woelfer. I'm the Chief Operating Office of Thor
9 Industries. Thor owns a family of companies who make RVs,
10 including Airstream. Thank you for the opportunity to
11 speak with you today.

12 Thor shares the values and the mission of the
13 Board and specifically of this rule. And we recognize the
14 importance of the initiatives that drive rules like the
15 one we're talking about today. At Thor, we make
16 significant investments in trying to improve our
17 environmental impact on the earth. We publicly announced
18 our own program to drive to a greenhouse gas net neutral
19 position across our entire footprint from manufacturing,
20 to users, to every aspect of our business and how -- and
21 how it relates to the earth.

22 Today, as we consider this rule, the impact on
23 RVers would be very similar to the impact of homeowners.
24 And the exception for stationary generators for homeowners
25 is a very important one for a lot of reasons, and really

1 drive to what potentially could be health crises in the
2 event that those generators were not available to
3 homeowners.

4 RVerS are in the exact same type of circumstance
5 as homeowners. The RVs are mobile. They're not
6 stationary, but the houses and the relationship between
7 the house part of the RV and the generator is stationary
8 as the relationship between a home and a generator.

9 RVerS count on those generators as either a
10 back-up or primary source of energy, and that powers the
11 appliances across the RVs, and those -- and also powers
12 other aspects and uses in the RV that could include
13 important medical devices and uses for RVerS across the
14 state.

15 So we see this as a very important initiative for
16 the future, but we also see this as it relates to RVs,
17 which are very similar to homes. We see this as the
18 sit -- a situation where the generators are stationary to
19 the house part of the RV. And it would be essential --

20 BOARD CLERK ESTABROOK: Thank you.

21 TODD WOELFER: -- for RVerS to be excluded from
22 the rule.

23 Thank you.

24 BOARD CLERK ESTABROOK: Thank you.

25 Our next speaker will be Greg Mitchell. And then

1 Patricia Hanz. After Patricia will be Glenn Amber and
2 Darrel Friesen.

3 Greg, you may unmute and begin.

4 GREG MITCHELL: Good morning. My name is Greg
5 Mitchell from ECI Fuel Systems. Our 60-employee metal
6 fabrication company has been in Southern California for
7 over 30 years. One group of our customers -- for one
8 group of our customers, we manufacture fuel and
9 evaporative emission control systems for the equipment
10 that they manufacture.

11 After actively participating for over two years
12 with CARB staff and their process, it has become evident
13 that they could not distinguish this equipment from all
14 other small off-road engines. Because of this, I'm asking
15 you to direct CARB staff to expand its proposed
16 regulations, so that certain high energy, long run time
17 specialty equipment can continue to be powered by internal
18 combustion engines until at least the year 2035 consistent
19 with the Executive Order 79-20.

20 I echo the same challenges as the pressure washer
21 industry, and the boats, and the recreational vehicles.
22 In each of these situations, a specialized machine powered
23 by a separate small gasoline engine is permanently mounted
24 to a vehicle or trailer. These machines supply large
25 amounts of energy over extended periods of time away from

1 the electrical grid and they currently do not have or in
2 the foreseeable future will have zero-emission
3 replacements.

4 The proposed SORE regulations will simply ban the
5 sale of this equipment in California. Being ignored in
6 the CARB staff proposal will cause the majority of these
7 machines to be manufactured and sold in other states.
8 They will then be imported along with less regulated
9 emissions that they create back to California.

10 According to CARB staff, their emission reduction
11 program has never been used by SORE manufacturers. This
12 program is not expected to benefit this equipment's
13 transition to zero emissions, because it doesn't
14 incentivize technology or attract innovation for this
15 small fragmented group of machines. Approving the
16 proposed regulations today will not affect emissions from
17 this equipment. It simply bans their sale along with the
18 business and jobs that they create.

19 Thank you for taking my comments today.

20 BOARD CLERK ESTABROOK: Thank you very much.

21 Patricia Hanz, please unmute and begin.

22 PATRICIA HANZ: Good morning. I am Patricia Hanz
23 here on behalf of the Truck and Engine Manufacturers
24 Association. EMA and its members have a long history of
25 working cooperatively with CARB and other regulatory

1 agencies worldwide to reduce emissions from their products
2 utilizing cost effective and feasible technology. We hope
3 to continue those efforts into the future.

4 My comments today are limited to the impacts of
5 the proposed amendments on the manufacturers of Class 1,
6 Class 2, and larger than 825 cc engines, which power
7 non-handheld outdoor power equipment.

8 EMA understands the need to improve air quality
9 in California, the sense of urgency to move forward with
10 significant emissions and the role that emission -- that
11 zero-emission technology can play. EMA members are
12 actively engaged in applying zero-emission technology to
13 non-handheld outdoor products. Indeed, for certain
14 applications, EMA members have electric or battery-powered
15 products available today as Mr. Coad mentioned.

16 However, EMA has multiple concerns with the
17 proposed amendments, which are described in detail in our
18 written comments. My comments today are focused on an
19 alternate proposal. Our alternate proposal, also detailed
20 in our comments, will achieve equivalent if not greater
21 emission reductions than the proposed amendments at a
22 fraction of the cost. And importantly, it avoids the
23 enormous negative effect that the proposed amendments will
24 have on the thousands of small businesses that utilize
25 outdoor power equipment.

1 EMA is committed to working with you to achieve
2 meaningful reductions, which both -- are technical
3 feasible and cost effective. Our alternate proposal does
4 that providing a cost-effective and technologically-
5 achievable program for manufacturers and their customers
6 that can be implemented in a manner which maintains the
7 manufacturer's ability to provide products meeting
8 customers' needs, including lifecycle performance and
9 total cost of ownership, while zero-emission technology
10 continues to develop.

11 We ask that the Board direct staff to work with
12 us and other stakeholders to develop an implementable
13 alternative program that can and will provide the benefits
14 that CARB is seeking, but at a lower cost --

15 BOARD CLERK ESTABROOK: Thank you.

16 PATRICIA HANZ: -- and without undue market
17 disruption. Thank you.

18 BOARD CLERK ESTABROOK: Thank you.

19 At this time, the witness list is now closed.

20 Our next speaker will be Glenn Amber.

21 Glenn, you may unmute and begin.

22 GLENN AMBER: Hi. My name is Glenn Amber. I'm
23 the Director of Engineering for Westerbeke Corporation.
24 Since 2018, Westerbeke is the only U.S. manufacturer of
25 SORE gasoline marine generators. Westerbeke believes that

1 gasoline marine generators should be exempted from the
2 SORE ZEE transition at this time.

3 Like RVs, marine generators are stationary
4 generators. They are not portable. They're permanently
5 bolted into the vessel and meet all the other criteria
6 defining a stationary generator. They should be regulated
7 as stationary generators and therefore be preempted from
8 the SORE ZEE transition.

9 Marine generators are technically advanced
10 compared to other SORE engines and generators. There are
11 special EPA restrictions in place on carbon monoxide
12 emissions to prevent CO poisoning on boats. To meet these
13 restrictions, marine generators are already calibrated for
14 the lowest possible CO emissions while still considering
15 the HC plus NOx balance necessary to meet the SORE
16 regulations.

17 Westerbeke has been developing and manufacturing
18 these type of generators for almost 20 years now. While
19 the staff and other consultants can speculate what they
20 think might be feasible, we have conclusively demonstrated
21 what is feasible in a production environment. Since
22 marine generators are already uniquely and separately
23 regulated by the EPA and CARB for low CO emissions, we
24 believe they should be dissociated from other SORE engines
25 and should be given technologically feasible standards.

1 Taking the proposed 2024 to 2027 SORE standards and then
2 applying a marine only additional cap on CO is capricious
3 and technically unfeasible to attain.

4 In conclusion, marine generators have no
5 technologically feasible and cost effective alternatives
6 period. In the very specialized case of gasoline marine
7 generators, it would render the boats unsafe and unusable.
8 Please don't be fooled. ZEE alternatives are not even
9 remotely adequate replacements for SORE generators.

10 Westerbeke respectfully requests that marine
11 generators be exempted or preempted from the SORE ZEE
12 transition until such a time as a practical ZEE solution
13 to replace the gasoline marine generator is actually
14 available in the marketplace.

15 Thank you for your time.

16 BOARD CLERK ESTABROOK: Thank you.

17 Our next speaker will be Darrel Friesen. After
18 Darrel will be Michael Ricketts, Ron Askeland, and then
19 Ted Davis.

20 Darrel, you can unmute and begin.

21 DARREL FRIESEN: Yes. RVs need an exemption from
22 these new rules. The pandemic has change the way people
23 live and how they use RVs. We sell 50 percent of our
24 units to people who live full-time in their RVs. We sell
25 them to fire victims, firefighters, PG&E workers, and an

1 aging population that needs to use the breathing and
2 oxygen machines, CPAP machines, and other medical devices
3 that need these generators to run them.

4 Thank you.

5 BOARD CLERK ESTABROOK: Thank you.

6 Michael Ricketts, you may unmute and begin.

7 MICHAEL RICKETTS: Good morning. My name is
8 Michael Ricketts. I'm the owner of Hotsy of Southern
9 California for the past 22 years. I'm also an active
10 member of the Cleaning Equipment Trade Association.
11 During my 22 years in the industry, I've had the pleasure
12 of watching the industry evolve equipment to meet air
13 quality standards for the great state of California. The
14 industry has worked hand in hand with CARB, AQMD, and
15 other agencies to reduce emissions and help California
16 achieve its air quality goals.

17 On page 44 of the proposed amended ISOR, it's
18 acknowledged that there are no battery-powered pressure
19 washers for professional use. I commend staff for the
20 recommendations on the exempt status for commercial
21 pressure washers. We ask the Board to refer to the
22 proposed amendments back to staff to read, "cleaners, high
23 pressure", back to preemption list and specifying high
24 pressure washers in California.

25 As we're all aware, the introduction of

1 SARS-CoV-2 in the -- late '99 has dramatically affected
2 the well-being of residents in the state of California
3 with 5.14 million cases and 75,279 deaths so far. We've
4 living in a different world than anytime in the state's
5 history. Billions of dollars are being spent by the
6 federal government, State of California, school districts,
7 and private industry to mitigate the damages and loss of
8 life by bolstering the cleaning capacity of State
9 agencies, schools, churches, restaurants, and
10 municipalities, event centers, and private industry. We
11 have partnered with many of these entities to provide
12 efficient cleaning systems to help ensure the facility was
13 clean and properly sanitized to ensure safety to the
14 public.

15 Everyone at this hearing has been positively
16 affected by these projects, whether you're in contact with
17 handrails at public transportation, sitting in seats at a
18 major sporting event, parking in an underground parking
19 lot at work or State facilities. These areas have been
20 protected by the use of portable gas engine pressure
21 washers. I appreciate the time to speak out about this
22 and I hope that the Board will take under great
23 consideration the need for this product in keeping our
24 state safe.

25 Thank you.

1 BOARD CLERK ESTABROOK: Thank you.

2 Ron Askeland, you may unmute and begin.

3 DR. RON ASKELAND: Dear Chair Randolph and
4 members of the Board. I am Dr. Ronald Askeland, co-leader
5 of SD-SEQUEL. That's San Diegans for Sustainable,
6 Equitable, and Quiet Equipment in Landscaping. We support
7 the adoption of new regulations that will phase out the
8 sale of highly polluting gas-powered leaf blowers, and
9 other lawn equipment in California beginning in 2024.

10 Please approve the amended SORE regulations per
11 the staff recommendation. This regulation will improve
12 the air quality, help to slow the climate crisis, improve
13 human health, and save lives. Emissions and noise levels
14 from gas-powered leaf blowers present a threat to public
15 health. Smog-forming emissions from small off-road
16 engines in California will surpass those of passenger
17 vehicles this year. Equipment operators are overexposed
18 to toxic fumes, respiratory irritating fine particles, and
19 unsafe noise levels at close range.

20 Children and older persons and people with
21 hearing disorders or other neurological conditions like
22 autism are especially vulnerable. Health hazards posed by
23 gas-powered leaf blowers are an environmental justice
24 issues for both the equipment operators and our most
25 vulnerable populations.

1 Please implement a trade-in program for small
2 landscaping businesses that cover 75 percent or more of
3 the cost of replacement electric lawn maintenance
4 equipment and coordinate this effort with the local air
5 pollution control districts. Replacing two-stroke engines
6 needs to be the top priority due to their disproportionate
7 level of emissions of hydrocarbons, carbon monoxide, and
8 nitrous oxides. The time to act is now.

9 Thank you.

10 BOARD CLERK ESTABROOK: Thank you.

11 Our next speaker will be Ted Davis. After Ted
12 will be Jeff Burian, Ronnie Raddigan, and then Michael
13 Ochs. Ted, you may unmute and begin.

14 TED DAVIS: Yes. Can you hear me?

15 BOARD CLERK ESTABROOK: Yes.

16 TED DAVIS: Yes. Ted Davis CEO of Bay Area
17 Airstream Adventures and South Bay Airstream Adventures.

18 Chair Randolph, Assemblyman Berman, thank you for
19 your time. And I appreciate the work CARB does for the
20 environment. Our dealer group has planted over 120,000
21 carbon offsetting trees this year alone. If your goal is
22 to reduce emissions in California by reducing the number
23 of generators sold in California that are permanently
24 installed in an RV, this will not solve the problem. It
25 may even make it worse.

1 All this will do is drive RV dealers out of the
2 state and create border town dealers in surrounding states
3 selling the same number of RVs with permanently mounted
4 generators to California residents who will bring them
5 back into the state, thus not reducing emissions at all.
6 This will also give the state less insight and control
7 over the efforts to reduce emissions.

8 There is currently not a viable replacement
9 option, but the RV industry is confident that by 2035
10 there will be better technology and more options that
11 could create a quadruple win for consumers, the State of
12 California, California dealers, and most importantly the
13 environment.

14 I respectfully ask the Board to have permanently
15 mounted generators installed in RVs excluded from the new
16 SORE amendment, and if unwilling to do this, defer
17 application of the ZEE standards to 2035 for permanently
18 mounted RV generators and allow the RV industry and
19 consumers the opportunity to create a sustainable
20 long-lasting solution that benefits everyone.

21 Thank you for your consideration and time.

22 BOARD CLERK ESTABROOK: Thank you.

23 Jeff Burian, you may unmute and begin.

24 JEFF BURIAN: Hello. My name is Jeff Burian and
25 I am the Operations Manager -- excuse me -- for Forest

1 River, which manufacturers RVs in the state of California.

2 To the point of many that spoke today, I can say
3 that we recently designed and tested an RV that was built
4 with the maximum number of solar panels allowable by RVIA
5 codes and standards. The RV was equipped with large --
6 four large solar batteries that used up all the storage
7 space we could utilize in an RV and an inverter capable of
8 handling the electrical demands of the average RV.

9 This test was conducted in mild weather
10 conditions where demands on the heating and air
11 conditioning systems were minimal. We also asked end
12 users of our products to participate in the testing. What
13 our test revealed was that the solar paneled unit --
14 powered unit did not meet the expectation of the average
15 RV owner and would leave them without back-up power under
16 normal operating conditions. Upon revealing the cost to
17 the consumer of \$20,000 or more than the cost of an RV
18 built with a fix-mounted generator, the customers surveyed
19 stated they would not purchase the RV.

20 As an employer of over 500 employees in the state
21 of California, I'm concerned with how the new regulation
22 could affect our industry with regards to loss of sales,
23 jobs, customer satisfaction, and the safety of RVs in the
24 state of California.

25 It will ultimately have a ripple effect that will

1 travel well beyond the RV industry and its dealerships.
2 Although we could stop the sales of gas-powered generators
3 in the state, there will still be generators out there for
4 consumers to get their hands on, whether those generators
5 are new, rebuilt, or outdated, or on their last leg, they
6 will acquire them and attempt to install them on their
7 own. Generators that are designed and installed at the
8 factory level meet the most stringent codes to ensure they
9 meet CARB as well as safety standards. Generators to --
10 consumer-installed generators do not.

11 For these reasons, I request fix-mounted
12 generators be exempt from the proposed amendment or given
13 more time to comply.

14 Thank you.

15 BOARD CLERK ESTABROOK: Thank you.

16 Ronnie Raddigan, you may unmute and begin.

17 RONNIE RADDIGAN: Good morning. My name is
18 Ronnie Raddigan. I've been employed in the RV industry
19 for over 26 years and serve on the California RVDA Board.
20 I wanted to share my knowledge, thoughts, and impact of
21 this bill to our industry. The aspect I am speaking on
22 today is CARB including what they're defining as portable
23 generators and the financial impact of this definition.

24 The definition in this bill should not apply to
25 RV homes. Although they do not meet the requirement set

1 forth of 19 kilowatts, they are far from affordable. They
2 do not have wheels or a carry handle. And the smallest RV
3 mounted generators weigh in the minimum of 175 pounds.

4 This bill being discussed today will only cost
5 California businesses sales and California families
6 income. I am responsible to run three dealerships in
7 three counties, and we have on average 95 employees. In
8 2020, we sold 1,147 new motorhomes and trailers for a
9 total sales of \$72 million. Of those sold units, over 600
10 were factory equipped with on-board permanent mounted
11 generators to supply the RV with the necessary power to
12 operate as a home. The idea to prohibit emissions is a
13 great long-term plan and I personally believe it is
14 something we should all work towards.

15 But with this Board's intentions to abandon the
16 sale of portable generators as defined in RVs will only
17 have a negative financial impact on not only just us a
18 company, but to all RV dealerships throughout the state.

19 If you pass this bill as you've written, you'll
20 potentially be prohibiting our ability to sell 600 plus
21 units a year, which will cost us approximately 40 million
22 in annual sales. With this -- with this dis -- decrease
23 in sales, you will force me to close and consolidate our
24 stores from three currently to only one in 2027. That
25 will also require me to reduce staff by over 50 percent,

1 therefore putting over 40 families (inaudible). Air
2 quality is important and as a father I want nothing more
3 than my children to grow up in this beautiful state with
4 the state -- with the best air quality possible.

5 I'm asking the Board to really consider a better
6 way to look at the true impact this bill represents to the
7 RV industry and the devastating financial implications it
8 has because of definitions. Stopping the sale of on-board
9 generators for RVs in the state will not stop the use of
10 them within the state. This will only cause California
11 consumers to shop neighboring states for motorhomes and
12 trailers, possibly putting hundreds, if not thousands, of
13 employees out of a job.

14 No matter what you decide on Bill 1346, unless it
15 becomes a nationwide effort, it will not prevent the use
16 of mounted generators on RVs in the State of California.
17 Therefore, including them will have no impact on emissions
18 in 2028. Please exclude on-board generators as part of
19 this bill and better define portable.

20 Thank you.

21 BOARD CLERK ESTABROOK: Thank you.

22 Our next speaker will be Michael Ochs. After
23 Michael will be Jim O'Connell, Alan Abbs, and then Mark
24 Rosenbaum.

25 Michael, you may unmute and begin.

1 MICHAEL OCHS: Good morning. I'm Michael Ochs
2 with the RV Industry Association and I thank you for the
3 opportunity to speak with you today.

4 RVIA agrees with several previous commenters that
5 fixed mount RV generators should be categorized as
6 stationary, since they have much more in common with those
7 generators than they do with portable generators.
8 However, CARB currently disagrees and will continue to
9 treat RV generators as portable generators. In this vein,
10 RVIA asks that the Board direct staff to delay the
11 effective date of the ZEE standards for RV generators to
12 2035.

13 This would still allow CARB to satisfy the goal
14 of Governor Newsom's Executive Order. RVs and their
15 generators are not comparable to lawn and garden equipment
16 that has been shown throughout this or the staff's
17 presentation.

18 They require sufficient electrical power even in
19 situations where plugging into grid power is not
20 available, such as blackouts and natural disaster
21 emergencies to be able to operate off of life-sustaining
22 equipment such as oxygen concentrators or CPAP machines,
23 not to mention air conditioning, heating, refrigeration,
24 or cooking.

25 The battery required to supply needed power to an

1 RV for just one day would need to be twice the size of the
2 battery currently used in a Tesla Model S would cost
3 upwards of sixty to a hundred thousand dollars and would
4 add at least 1,000 to 2,000 pounds to the vehicle
5 decreasing its fuel economy.

6 The main engine on the motorhome would need to be
7 run for lengthy periods of time just to recharge the
8 batteries each day. This would detract from over --
9 overall air quality not improving. Such solutions are
10 neither technologically feasible nor cost effective.

11 Zero-emission solutions for RVs only make sense
12 when the entire vehicle runs on alternative electric
13 energy, such as electric or fuel cells. I thank you for
14 your time this afternoon and this morning and look forward
15 to working with the Board and the staff to find an
16 equitable solution.

17 Thank you.

18 BOARD CLERK ESTABROOK: Thank you.

19 Jim O'Connell, you can unmute and begin.

20 JIM O'CONNELL: Thank you to CARB and staff. I
21 do appreciate you allowing us to have comments here. My
22 name is Jim O'Connell. I am a business owner in
23 California. I own a company called Hotsy Pacific, as well
24 as a representative for the Cleaning Equipment Trade
25 Association.

1 Our main concern here is that over the last
2 number of years we've -- well, actually 30 years, we've
3 provided service and support with pressure washers
4 throughout the valley and the greater Bay Area. We have
5 also in the last two years partnered with many contract
6 cleaning companies who go out to clean these buildings,
7 sidewalks, homeless encampments, et cetera, to maintain a
8 clean environment in our world.

9 And if you walk through any stores or down the
10 city streets, you can see that the -- there's a lot of
11 work to be done and the small gas engine pressure washers
12 do the bulk of the work due to the remoteness of their
13 application.

14 We also have helped many small disadvantaged and
15 minority-owned businesses stay in business and start
16 businesses due to the low cost of getting into this kind
17 of an industry. And so we would feel that you're going to
18 see some businesses have to leave the state or close their
19 doors permanently because of this.

20 Again, I'd like to thank the CARB staff for
21 listening to our comments and actually considering a
22 moving of the date for the pressure washers out to 2028.

23 I'd also like them to reconsider the preempt
24 status for pressure washers. So my ask would be to have
25 the Board kick back to staff and see if we can move on

1 that. And we'd be more than willing to have conversations
2 and help them with that process.

3 On page 44, the proposed amendments, ISOR, it's
4 acknowledged that there are no battery-powered pressure
5 washers for professional use at this time. It is also
6 acknowledged that 67 percent of residential pressure
7 washers are already ZEE.

8 So I'll speed this up to get it out of here, but
9 again what we're asking is let's go back to a preempt
10 status for pressure washers, until we get to such a point
11 as technology catches up with us. Again, thank you for
12 your time and I appreciate all your efforts.

13 BOARD CLERK ESTABROOK: Thank you.

14 Alan Abbs, you may unmute and begin.

15 ALAN ABBS: Good morning, Chair Randolph and
16 members of the Board. I'm Alan Abbs with the Bay Area Air
17 Quality Management District. Thank you for the
18 opportunity to comment and to provide overall support for
19 the SORE Regulation.

20 SORE includes some of the dirtiest and most
21 common pieces of equipment, and transitioning them to zero
22 emissions would result in significant reductions in local
23 criteria pollutants and air toxics, and provide
24 significant gains in local public health. Many types of
25 equipment subject to the regulation, such as lawn and

1 garden equipment, have many existing zero-emission
2 substitutes making a 2024 deadline achievable.

3 To ensure this, we encourage CARB to work with
4 air districts on ongoing State funding for incentives to
5 assist in this transition, especially for small
6 owner/operators and businesses in disadvantaged
7 communities.

8 We also encourage CARB to continue monitoring the
9 feasibility of deadlines for larger pieces of equipment
10 that may not have current widespread commercial
11 availability or that may be predominantly used in remote
12 areas. And we support the approach used for back-up
13 generators that provides for the potential for non-zero
14 options through 2032.

15 Thank you for the opportunity to comment.

16 BOARD CLERK ESTABROOK: Thank you.

17 Mark Rosenbaum. Who's got their mic on?

18 MIKE ROSENBAUM: Thank you for letting me speak
19 today. I'm Mark Rosenbaum, General Manager of Mike
20 Thompson's RV Superstores. I just want to point out a few
21 facts, that motorhomes, unlike a lot of the different
22 motors and stuff that we're talking about today are
23 completely different. Go RVing just reported in an
24 article not too long ago that the average age -- average
25 usage of a motorhome is anywhere from 20 to 25 days.

1 That's throughout the entire year of every owner.

2 I'd like to take -- have you take into
3 consideration some of the following facts, that in 2021
4 only 5,618 motorhomes were sold - that's homes with
5 motors. That's what we sell homes with motors - in 2020,
6 6,369; in 2019, fifty-six hundred and thirty-eight. So
7 these units that are being out there and they've got these
8 permanently mounted generators to their -- to their homes,
9 they're being used, but they're being used on an average
10 of 22 days in a full year. And in that 22 days, only 50
11 hours of usage, that's two and a half hours a day for 22
12 days. Keep in mind, the total hours of the 50 hours is
13 less than a half a percent of the total hours available in
14 a full year.

15 I'd also like to take into consideration, we are
16 a large company as well. We employ about 400 employees.
17 If something like this goes down, where we can't --
18 motorhomes cannot be excluded from the deal, then we're
19 going to be in a situation where we're going to have to
20 reduce our staff and we're going to have to reduce the way
21 we do business. And in the end, all you're going to do is
22 move the revenue out of California and you're going to
23 have the same emissions with these -- with these
24 motorhomes, which is not very impacting anyway.

25 That's my voice and thank you for letting me

1 speak.

2 BOARD CLERK ESTABROOK: Thank you.

3 Our next three speakers will be Dave Johnston,
4 Casey Meelker, and Chad Reece.

5 Dave, you can unmute and begin.

6 It does look like you're calling in by phone, so
7 you'll need to press star six to unmute.

8 DAVE JOHNSTON: Good morning, Board. Dave
9 Johnston, Air Pollution Control Officer for El Dorado
10 County. I and several other rural air district
11 representatives are opposed to staff's proposed SORE
12 amendments because of the negative public health impact
13 that the portable generators sale prohibition will have on
14 our residents that rely on portable generators to power
15 their homes.

16 Batteries are now and for the foreseeable future
17 will be cost prohibitive. They will not perform
18 sufficiently and the supply will be inadequate.
19 Prohibiting portable generator sales will result in a
20 negative public health impact that will significantly be
21 greater than the environmental health air quality benefit
22 for rural California residents.

23 Power outages in rural areas are frequent, can
24 last for several days, and are becoming more common.
25 Forcing moderate to low income rural residents to do

1 without power for extended periods to achieve small
2 emission reductions in these areas that are already in
3 attainment is unconscionable.

4 So I respectfully request that if your Board does
5 vote to approve SORE amendments, that those amendments do
6 not include a portable generator sale prohibition. Short
7 of that, I request a surgical compromise that limits the
8 sale prohibition to only those generators that are two
9 horsepower and smaller.

10 From the information provided by CARB staff last
11 night, it appears that the majority of portable generator
12 emissions are from those in the zero to two horsepower
13 category. Generators in that category are largely used
14 for recreational purposes, not back-up residential power.

15 Placing these small generators with battery power
16 is far more practical than trying to replace those in the
17 3 to 25 horsepower category. This would greatly help
18 rural residents in the regions you represent and
19 throughout the state, while reasonably achieving emission
20 reductions.

21 Thank you for your time.

22 BOARD CLERK ESTABROOK: Thank you.

23 Casey Meelker, you may unmute and begin.

24 CASEY MEELKER: Thank you very much for your time
25 and the opportunity to present our concerns today. My

1 name is Casey Meelker. I am the product manager for Hydro
2 Tek, which is a company that manufacturers industrial
3 pressure washers in Southern California. I appreciate
4 your consideration already made, but ask the Board to
5 refer the proposed amendments back to the staff to add
6 professional high pressure washers back to the preemption
7 list, until technology is available to support the
8 professional industrial applications that pressure washers
9 are used for today.

10 Mainly three reasons I want to bring to your
11 attention. The manufacturing facility that I'm employed
12 at employs more than 50 people, who build and support this
13 California manufacturing facility. These pressure washers
14 are sold to distributors which are California small
15 businesses who, in turn, sell these gas-powered pressure
16 washers to local municipalities and California
17 entrepreneurs. This regulation would effectively
18 eliminate most the pressure washing products and services
19 that we provide to our California customers, which would
20 impact our livelihoods as well as theirs.

21 Secondly, pressure washers save water. A
22 pressure washer is used to quickly and effectively clean
23 and sanitize in a way no other product can. It's
24 important for our drought-susceptible climate, since it
25 uses a fraction of the water used by a garden hose. If

1 gas-powered washers are not available, the other options
2 of cleaning that will be employed will be with a garden
3 hose, which will lead to less effective cleaning and
4 significantly more water wasted.

5 Finally, it reduces pollution. Hot water
6 pressure washers are industrial equipment that are the
7 core of our business. It's similar to using hot water for
8 cleaning your dishes. It quickly gets rid of oil, algae,
9 road film, and grease and other grime, and in many
10 applications completely eliminates the re -- the use of
11 caustic chemicals. So if we eliminate this product, more
12 caustic chemicals will be used that will pollute the
13 environment.

14 Also, part of our system is a wastewater recovery
15 system that picks up the water, recycles it, reuses it,
16 saves more water, and keeps the polluted water out of our
17 lakes, streams, and oceans.

18 Thank you very much for your consideration.

19 BOARD CLERK ESTABROOK: Thank you.

20 ...and Elizabeth Burns and then Casey McGrath.

21 Chad, you may unmute and begin.

22 CHAD REECE: Hello. This is Chad Reece. Was I
23 supposed to speak at this point?

24 Hello. This is Chad Reece. I can't hear you,
25 but I will continue on. Industry veteran of 34 years and

1 avid RV enthusiast, but wanted to speak on a couple of
2 points that have been brought up very briefly. But the
3 stationary application definition here we think is key.
4 And the decision that the Board we're hoping will make in
5 excluding RV generation in this process, and that they are
6 used in more of a stationary application. If you look at
7 the definition, they are tied to the living unit,
8 specifically are not portable in that sense.

9 As far as another aspect of this around the
10 unintended consequences of the good that we're trying to
11 do, if we misstep this, people will find workarounds using
12 not only the engine gen -- the engine on the vehicle to
13 run systems in a probably much less efficient way, but
14 also they will be sourcing less robust generator systems
15 from third-market parties or big box stores from out of
16 state, and running those in a much more energy inefficient
17 method and noise pollution standard from a portable
18 standpoint.

19 So with that, agree with all the other RV- and
20 marine-specific content that was delivered, but just
21 wanted to give the Board the opportunity to think on the
22 consequences that could happen if the carve-out isn't made
23 for RV-specific generation moving forward.

24 Thank you.

25 RANDY SHERMAN: Hi. Can you hear me?

1 Hi. My name is Randy Sherman. I'm the Vice
2 President of Sales for the Zama Group. Zama is a
3 worldwide operating group producing 15 million
4 carburetors, six million oil pumps, and other high
5 precision machine parts every year. Zama supplies
6 emission control components to almost all major
7 manufacturers in the industry.

8 To carburetor manufacturers, the key performance
9 indicators are lead time and cost for the development of
10 electronic emissions control units. Before 2031, it is
11 highly unrealistic that battery-powered products should
12 replace existing technology. Consequently, there would be
13 a lack of outdoor power equipment for maintaining roadway
14 signage visibility and fuel mitigation to reduce
15 wildfires.

16 Zama encourages CARB to consider alternatives,
17 which if used in connection with restrictions for
18 homeowner SORE products would easily achieve CARB's SIP
19 goals while avoiding significant impacts on small
20 businesses and professional users. Developing
21 state-of-the-art limit values shall be considered as an
22 appropriate approach.

23 The current international development of limit
24 values, including best available technology, is
25 continuously published by several organizations, including

1 the European Joint Research Center. Although Europe and
2 California have different emission ABT schemes, the
3 proposed European standard of 3550 gram kilowatt hours HC
4 plus NOx without any compensation scheme are based on best
5 available technology. These values would give the
6 emissions reductions needed to meet the 2016 SIP goals and
7 2031 federal air quality standards.

8 Therefore Zama proposes to introduce limit values
9 for professional use engines. To this end, feasibility
10 studies need to be conducted in order to reflect the
11 different multi-directional applications and differentiate
12 between professional and homeowner use.

13 Thank you for your time.

14 BOARD CLERK ESTABROOK: Thank you.

15 Elizabeth Burns.

16 Elizabeth, you may unmute and begin.

17 Go ahead.

18 Are you there Elizabeth?

19 We'll try you again shortly. Let's go to Casey
20 McGrath. You may unmute and begin.

21 Go ahead, Casey.

22 CASEY McGRATH: Hello and thank you to CARB staff
23 and the CARB Board for the opportunity to provide
24 testimony today. My name is Casey McGrath and I'm
25 Director of Pacific Stihl, a California branch of Stihl,

1 Inc., that distributes gas and battery-powered equipment
2 to independent authorized dealers throughout California.

3 Stihl, Inc. understands CARB's effort to improve
4 air quality throughout California and supports a
5 transition to ZEE, but we are concerned that the
6 accelerated timeline is not feasible for professional
7 products. It does not take into consideration the true
8 impact to professional users and cannot be sustained by
9 the manufacturers that supply the market. We request
10 adjusting implementation of the proposed rule for
11 professional products to allow for additional cooperation
12 between industry and CARB to successfully transition to
13 ZEE.

14 It will be costly for professionals to transition
15 a full fleet of products from gas over to high quality
16 long lasting professional ZEE. Professional products that
17 are compatible to gas products could cost as much as 10
18 times more and have fewer product offerings at this time.
19 For many small businesses, the up-front cost of this
20 transition will force them out of business. Thirty
21 million in funding is simply not enough. We are also
22 concerned about the timing of implementation given the
23 current supply chain challenges that appear to be getting
24 worse every day and will only increase in 2024.

25 Demand for ZEE products is at an all-time high,

1 while raw materials are gobbled up by the large industries
2 like car -- cars and electronics. Electronic modules and
3 lithium are in short supply causing backorders throughout
4 industry. In fact, the Center for Automotive Research
5 anticipates significant shortages of lithium-ion battery
6 sales and will not resolve until 2029.

7 Moreover, the proposed rule does not adequately
8 address emergency use by with wildland firefighters,
9 utility companies, and farmers, who need non-exempt
10 products to protect Californians from natural disaster.
11 The draft does not adequately address who will qualify for
12 a waiver or how they will purchase products if the
13 equipment os not available in the state.

14 For these reasons and as more specifically
15 outlined in Stihl and OPEI's written comments, Stihl
16 requests that the implementation of the proposed rule be
17 delayed for professional equipment, so that industry can
18 consider alternatives and work with -- together with CARB
19 to develop a successful plan to meet market demands for
20 ZEE transition.

21 Thank you.

22 BOARD CLERK ESTABROOK: All right. Elizabeth
23 Burns again. Elizabeth, you can unmute and begin.

24 Okay. Elizabeth, we are not able to hear you.
25 There is a call-in number on the screen. If you can dial

1 that number and then raise your hand in Zoom by dialing
2 star nine, we can try to get to you that way.

3 Our next speakers will be Mickey McDonohue[SIC],
4 Andrew Bray, and Alan Bonifas.

5 Mickey, you can unmute and begin.

6 MICKEY DONOHUE: Hello. I'm a homeowner, a
7 couple acres in the foothills and I do own and operate
8 battery equipment and gas-powered equipment. And I would
9 like to say that the battery technology is just not quite
10 there. Even with some of the marketing from some of the
11 brands, it's not equivalent to gas-powered equipment. And
12 if you want to try and purchase battery equipment that is
13 comparable, or supposed to comparable to gas-powered
14 equipment, it's about triple the price is about what I've
15 had to spend on average. So just not quite there and not
16 cost effective as well.

17 Also to allow emergency services to purchase
18 equipment out of the state, not only is that a ridiculous
19 comment, but just -- it just -- how can that be done for
20 them to go out of state and purchase equipment. With
21 that, there's going to be many people that will go out of
22 state to purchase equipment considering the cost, the
23 reliability and runtime of some of the battery equipment
24 as well.

25 I would also like some of the information that

1 CARB is using to be published publicly, such as what kind
2 of backpack blower would put out enough emissions to
3 cause -- to be equivalent to a vehicle driving over a
4 thousand miles, what kind of infor -- what kind of data
5 that that is being used? Because also some of the data
6 that was put out in the presentation earlier is that 50
7 percent of emissions have been reduced since some of these
8 implications.

9 So it seems like some of it is working to reduce
10 emissions, but again, the technology is just not quite
11 there. And to ask some of these companies to try to come
12 out with new battery products when there's such a supply
13 chain issue that we've all been affected in one way or
14 another, I think is also unreasonable as well. So again,
15 it's not quite there, technology, and the cost is just not
16 cost effective as well.

17 Thank you.

18 BOARD CLERK ESTABROOK: Elizabeth, I see that you
19 are -- it looks like you're joined from two different
20 devices, so I'm going to try to unmute you on this other
21 one that I see. If you are able to, please unmute and
22 begin.

23 ELIZABETH BURNS: Can you hear me now? Thank you
24 for giving me another chance.

25 BOARD CLERK ESTABROOK: Yes. Yes, we can.

1 ELIZABETH BURNS: Thank you so much. Well,
2 Elizabeth Burns, Zone 24 Landscaping.

3 BOARD CLERK ESTABROOK: We lost you.

4 Elizabeth, are you there?

5 Are you there?

6 Let's go to Andrew Bray.

7 ANDREW BRAY: Thank you, Chair Randolph and CARB
8 for the opportunity to testify on behalf of the National
9 Association of Landscape Professionals. The landscape
10 industry supports the transition from gas to electric
11 equipment. As an industry, the health of our environment
12 is inherent to our industry and we take our responsibility
13 care for the environment very seriously.

14 Virtually all landscape companies are purchasing,
15 testing, and trying zero-emission equipment. But at this
16 time, it is not technologically feasible for the landscape
17 industry to make a complete transition to ZEE. The
18 inevitable transition to ZEE must be done in a responsible
19 manner. A 2024 ban for commercial grade landscape
20 equipment will certainly adversely impact landscape
21 businesses and their employees. There are approximately
22 55,000 landscape companies in California, 99 percent of
23 which are small businesses.

24 It is not a coincidence that according to CARB's
25 own data, that less than five percent of landscape

1 companies have made this transition. That is actually
2 compelling evidence that the ZEE equipment is not ready
3 and it is alarming that the proposal before you is pushing
4 for this transition for the 95 percent majority of
5 companies in only two short years. ZEE equipment has
6 performance deficiencies, it's cost prohibitive, and the
7 infrastructure to support the transition is not yet in
8 place.

9 I was going to mention points on each three, but
10 with limited time, I'd like to present a solution. Extend
11 the time period to transition to zero emission for
12 professional commercial equipment, but maintain the 2024
13 end-of-sale date for non-residential grade equipment.
14 This is similar to Alternative 2, but would reduce
15 emissions even further by eliminating residential.

16 NALP lobbied to have language included in AB 1346
17 to consider differences between residential and commercial
18 uses, and we do not believe the ISOR adequately fulfills
19 this directive.

20 Lastly, when we say that a transition must be
21 done responsibly, we mean that timelines should be laid,
22 but also that any transition needs to be adequately
23 supported financially through rebate programs, tax
24 incentives, and training opportunities. The landscape
25 industry is frustrated that the only money put forward to

1 assist is 30 million, which equals only 15,000 -- I mean,
2 \$15 per piece of equipment when costs exceed 20,000 for a
3 ZEE commercial grade riding mower.

4 Please reconsider providing more time of the
5 landscape industry to continue to integrate to commercial
6 professional ZEE. Thank you for your consideration. We
7 are committed to working with CARB to achieve this
8 transition on a responsible timeline for the landscape
9 industry.

10 BOARD CLERK ESTABROOK:try one more time, if
11 you can unmute, do so now.

12 Are you there?

13 I'm going to ask Elizabeth if you can call in.
14 Oh, I can see you're unmuted now.

15 ELIZABETH BURNS: I'm on. Can you hear me now?

16 BOARD CLERK ESTABROOK: We can now.

17 ELIZABETH BURNS: Let me try one more time while
18 we --

19 BOARD CLERK ESTABROOK: Okay.

20 ELIZABETH BURNS: Elizabeth Burns Zone 24
21 Landscaping, female owned and operated landscape
22 contractor in Southern California. We appreciate the
23 financial incentives. And the cost to transition is --
24 would be significant and probably kill my small business.

25 One other issue is the technology is not yet

1 there for battery life and that's super important.

2 Another issue that will affect us down here in Southern
3 California is our infrastructure is not ready in the Los
4 Angeles area. We consistently have brownouts during the
5 summertime, and that is not going to help us out at all.

6 Another big issue is, as has been mentioned, is
7 the supply chain is virtually impossible at this moment,
8 as we sit and stare at the cargo ships out in the harbor
9 on a daily basis.

10 We just kindly ask that you give us more time to
11 incorporate this for a smoother transition. This is
12 real-world issues for our industry.

13 Thank you, kindly.

14 BOARD CLERK ESTABROOK:will be Alan Bonifas.
15 After Alan will be Sandra Giarde, and then Robert Olma and
16 Greg Knott.

17 Alan, you may unmute and begin.

18 ALAN BONIFAS: Thank you, Board, for listening to
19 our comments. My name is Alan Bonifas. The name of my
20 company is All Spray and my company is a distributor of
21 pressure washers. I've been in the business or the
22 industry for over 37 years. I'm also the president of
23 CETA for 21-22, the Cleaning Equipment Trade Association,
24 but my written comments for our organization are number
25 483 with our organization's public comments coming from

1 Jimmy Welch. My comments are my own and my written
2 comments were number 536.

3 I feel that the societal benefits of small
4 engine-driven industrial commercial pressure washers far
5 outweighs the limited increase in emissions from the small
6 category of engine-powered equipment. With estimates of
7 industrial pressure washers in tens of thousands compared
8 to what Kim Alexander referred to in the number of engines
9 for lawn and landscape industry at over 10 million.

10 And the technology does not exist, as been
11 mentioned, to have feasible ZEE-powered pressure washers
12 at this time. I'm impressed with the ZEE demonstration
13 trailer for the landscaping industry, but I did notice
14 there was no equipment there as far as pressure washing
15 equipment and duly noted that it just does not exist. And
16 I believe this was recognized by the staff and appreciate
17 the recent recommendations backing up the recommendation
18 for pressure washers to 2028.

19 But we still ask the Board to refer to the
20 posed -- the proposed amendment back to staff to read,
21 "Cleaners, high pressure", back to the preemption list and
22 specifying high-pressure washers with this definition to
23 continue the societal benefit that's been mentioned in
24 lots of different examples, that the State of California
25 receive from this industry.

1 So thank you very much for your time and really
2 appreciate everything the CARB Board is doing.

3 BOARD CLERK ESTABROOK: Sandra. You can unmute
4 and begin.

5 SANDRA GIARDE: Thank you so much. Sandra Giarde
6 here with the California Landscape Contractors
7 Association.

8 Eighty-five percent of SORE landscaping equipment
9 is used by residential users according to Cal State
10 Fullerton. The remaining 15 percent is used by various
11 businesses across our state, schools, golf courses, local
12 governments, theme parks, and yes, landscape
13 professionals.

14 While Zero-emission equipment exists, it has a
15 long way to go before it can meet the needs of daily
16 landscape professionals. Performance needs strengthening,
17 supply chains are still unstable, and battery life needs
18 an incredible improvement, because the need for extra
19 batteries drives up the cost immensely for users.

20 I refer Board members to the extensive comment
21 letters from the Outdoor Power Equipment Institute and
22 those of the Truck and Engine Manufacturers Association
23 for granular specific details. For the 99 percent of
24 landscapers who are sole proprietor businesses, usually
25 Latino, earning less than \$40,000 a year, the impact of

1 these staff proposed changes are simply enormous.

2 Much like NALP, we propose an amendment, ban
3 gas-powered equipment in 2024 for residential users -
4 after all, that's 85 percent of the equipment - delay
5 until 2028 for commercial users. Local air districts have
6 programs that differentiate between residential and
7 commercial equipment, so it would be achievable for CARB
8 to do the same. 2028 would give more time to secure
9 transition assistance funds. The \$30 million the
10 Legislature equates to only \$15 per piece of SORE
11 equipment used in the commercial sector, which is woefully
12 inadequate.

13 The amendment that we're proposing would have
14 CARB achieve your 2031 emissions goals, as stated in your
15 SIP, while it would still allow equipment manufacturers
16 time to improve their products to be able to meet the
17 daily professional needs of landscape industry pros.

18 Thank you so much.

19 BOARD CLERK ESTABROOK: ...Olma. You can unmute
20 and begin.

21 ROBERT OLMA: Yes. Can you hear me?

22 BOARD CLERK ESTABROOK: Yes, we can.

23 ROBERT OLMA: Yes. Honorable Chair Randolph,
24 dear members of the Board, good evening from Europe. On
25 behalf of Andreas Stihl, I'd like to thank you for the

1 opportunity to share with you our observations on the
2 proposed amendment.

3 Stihl supports a transition to ZEE. Over the
4 last year, Stihl has been certifying many professional ZEE
5 products with CARB. The proposed amendment, however,
6 suggests a change to a performance-based evap
7 certification. We are firmly convinced that the current
8 design base evap certification for SORE under 80 cc is
9 effective and should remain valid. It's effective,
10 because already today handheld products have the lowest
11 evaporative emissions in the SORE sector, in some cases
12 even better than the proposed standard for generators.

13 It should remain valid because the testing
14 requirements would be inconsistent with federal EPA
15 requirements, and it would effectively prevent
16 sustainably-minded companies like Stihl from using the
17 existing exhaust emission credits.

18 We appreciate CARB's willingness to reconsider
19 the diurnal testing standards on the 15-day changes. But
20 even as presented today by staff, the changes are not
21 enough. Stihl would still need to certify and redesign
22 our products to fulfill the diurnal standards. The
23 proposal to allow to certify to diurnal standards is
24 expensive. It would require SHED testing not currently
25 applied. It would require cost and lead time with no

1 chance to get return on investment. And with a standard
2 limit of zero, it's impossible to generate any credits.

3 Stihl has also concerns with the proposed engine
4 and handheld definition and other changes outlined in the
5 proposal.

6 Therefore, we would ask CARB to consider also
7 these two issues during the 15-days comment period. But
8 first and foremost, the design-based evap certification
9 for SORE under 80 cc.

10 An additional observation. The proposed
11 amendment focuses too narrowly on the outright ban of a
12 single type of product, without considering effective and
13 efficient alternatives. The Clean Air Act explicitly
14 refers to technologies like synthetic fuels or eFuels,
15 because they carry an enormous potential to reduce
16 emissions with the existing fleet.

17 We'd also like to mention alkylate fuel could
18 reduce ROG emissions up to 60 percent. We therefore
19 propose an exemption to allow combustion engines running
20 on alternative fuels. A similar exemption is built in the
21 EU emissions regulation.

22 To conclude, Stihl supports the transition to
23 ZEE, but we are concerned that the current transition time
24 is too ambitious, especially for professional users. In
25 addition, the biased approach to bet on ZEE only is

1 arbitrary and capricious and ignores the potential of
2 ready-to-use alternatives.

3 Thank you.

4 BOARD CLERK ESTABROOK: The next speaker will be
5 Greg Knott. After Greg will be Sarah Rees, Michael
6 Geller, and Erin Gilbert.

7 Greg, you may unmute and begin.

8 GREG KNOTT: The Outdoor Power Equipment
9 Institute supports ZEE as part of an emissions reduction
10 strategy. However, there is currently no
11 one-size-fits-all ZEE approach to satisfy the full range
12 of SORE-powered equipment in-use cases. OPEI asks the
13 Board to postpone today's decision to adopt the proposed
14 rule and request staff to address rulemaking concerns and
15 work with industry to develop a technologically feasible
16 strategy.

17 The proposed rule is rooted in flawed data. For
18 example, the underlying survey and model assumes the
19 average household that owns a chainsaw owns 1.41 saws and
20 operates them more than 25 hours per year. That's
21 equivalent to approximately 37 to 50 full tanks of gas
22 every year, and on average enough firewood to fill a 1.5
23 car garage every year, 57 percent of those saws modeled in
24 LA, San Diego, Orange, Riverside, Santa Clarita, and San
25 Bernardino counties, some of the most densely populated

1 areas of the U.S. This is not reasonably modeled product
2 use or emissions for South Coast and neighboring air
3 districts.

4 CARB modeling estimates a landscape needs 1,180
5 watts of power, or 6.8 batteries per day for each lawn
6 mower. But the impact assessment only specifies 690 watts
7 of power or four batteries for the selected ZEE mower. If
8 the model is correct, the proposed rule significantly
9 underestimates the cost needed for landscaper tools by
10 thousands of dollars. On the other hand, if the impact
11 assessment is correct, the model overestimates the base
12 line product emissions by 70 to 200 percent. Bigger
13 batteries are more expensive and the cost must be
14 accounted for if the cost analysis -- in the cost
15 analysis, if that's staff's response to concerned
16 comments.

17 Simply put, both the model and the impact
18 assessment cannot be true. The proposed rule
19 overestimates sector emissions. They are not equal to
20 passenger cars and/or underestimates the rule cost. Ms.
21 Ostad and Assemblymember Berman noted that landscaper ZEE
22 adoption rate of 27 percent in 2020, up from three percent
23 in 2018. This is not reflected in the SORE 2020 model
24 from to 2018 to '24.

25 If true, the SORE model significantly

1 overestimates gas-powered equipment and emissions moving
2 forward. Emission are not high, and -- are not as high
3 and will not exceed cars. Regulations must be fact based.

4 Finally, I'd like to clarify a few staff points
5 regarding the ZEE Roadshow. It should be noted that none
6 of the participants met the definition of the 80,000 plus
7 landscape professionals estimated by CARB's survey. Also,
8 Ms. Ostad noted the 50 percent compliance with the evap
9 standards. This is not base on -- this is based on units
10 tested, not volume and is misleading. Handheld products
11 make up approximately half of the SORE fleet and
12 demonstrated a hundred percent compliance with equivalent
13 diurnal standards in the recent E10 validation study.

14 Thank you for your time.

15 BOARD CLERK ESTABROOK: Sarah Rees, you may
16 unmute and begin.

17 SARAH REES: Good morning. My name is Sarah
18 Rees. I'm Deputy Executive Officer for South Coast Air
19 Quality Management District. As you know, the South Coast
20 region fails to meet federal air quality standards and
21 faces upcoming hard deadlines to meet these standards.

22 The SORE source category contributes substantial
23 VOCs to our air basin. There is approximately two and six
24 times more VOC emissions in passenger cars in 2018 and
25 2031 respectively. Seventeen percent of total South Coast

1 Air Basin emissions for VOCs will be made up of SORE
2 emissions in 2037.

3 The 25 ton per day VOC reduction that the SORE
4 regulation is expected to bring in 2031 is significant.
5 While NOx is the key pollutant of concern for us to meet
6 the federal ozone standards, these VOC reductions will
7 help us attain. The NOx and VOC reductions expected from
8 the SORE regulations will also help meet Clean Air Act
9 requirements, such as meeting reasonable further progress
10 requirements towards attainment of federal ozone and PM
11 standards.

12 We also believe that the VOC reductions will
13 provide an important co-benefit as we move to attainment
14 of the PM standards. Finally, the VOC reductions will
15 have important health benefits reducing toxic species,
16 such as 1,3-butadiene and benzene. While these emission
17 reductions are important to a heavily urbanized system or
18 region like South Coast, we do recognize that there are
19 other regions in California that don't face the same
20 pressing air quality challenges.

21 Thank you for the opportunity to testify this
22 morning.

23 BOARD CLERK ESTABROOK: Erin Gilbert, you may
24 unmute and begin.

25 ERIN GILBERT: Hi. Erin Gilbert on behalf of the

1 Pacific Crest Trail Association. We greatly appreciate
2 the time that staff and Board members have spent with us
3 to discuss the proposed regulation and how it may impact
4 the trail maintenance on the PCT. The PCT is a national
5 scenic trail designated by Congress and travels 2,650
6 miles from Mexico to Canada, of which 1,700 miles are in
7 California.

8 The trail traverses 22 California counties, five
9 California State Parks, three wilderness areas, and a
10 variety of federal lands. The PCTA operates under an MOU
11 as the primary partner with Federal agencies and
12 California State Parks on the management and maintenance
13 of the trail. The PCTA has over 2,000 volunteers that
14 contribute over a hundred thousand hours of work annually
15 on the trail. All volunteers who handle saws are trained
16 and certified to the National Forest Service standard.

17 While we support the direction of the proposed
18 SORE regulation and agree that ZEE is appropriate in urban
19 areas, we do want to point out the unintended consequence
20 of this proposal and the effect on trail maintenance in
21 the back country.

22 At this time, ZEE tools are unable to tackle most
23 of the work we encounter in the back country. Our trail
24 crews often hike four to five miles out for a weekend or
25 up to two weeks to do trail maintenance in all types of

1 weather. We estimate we would need five to seven
2 batteries per tool for one day of work. We would not be
3 able to recharge batteries in the back country, as owner
4 manuals state to charge only indoors in dry rooms in
5 specific temperatures. The tools and batteries should not
6 be exposed to rain or wet conditions.

7 This is not viable for our work in the back
8 country. These real-world impacts would limit our ability
9 to use battery-powered tools in the back country and we
10 ask that trail crews be allowed to continue to use
11 gas-powered tools.

12 Thank you.

13 BOARD CLERK ESTABROOK: Michael Geller. After
14 Michael will be Davis Harper, Ben Granholm, and Joani
15 Woelfel.

16 Michael, you can unmute and begin.

17 MICHAEL GELLER: Good morning, Chair Randolph and
18 members of the Board. My name is Michael Geller, Deputy
19 Director of the Manufacturers of Emission Controls
20 Association. MECA represents manufacturers of combustion
21 emission controls as well as electric technologies that
22 reduce both criteria and greenhouse gas emissions from all
23 mobile sources. Our members include companies that
24 provide the engine and after-treatment technologies that
25 enable small off-road engines to meet stringent criteria

1 emission standards and battery materials that power
2 electronics to enable CARB's electrification goals. We
3 appreciate staff's work in developing this rule, including
4 meeting with MECA and other stakeholders, who submitted
5 written comments. Today, I would like to highlight a few
6 points for the Board's consideration.

7 MECA supports a compliance pathway based on a
8 slightly modified version of staff's Alternative 2
9 proposal. For this rule, we suggest CARB consider the
10 proven effective regulatory strategy for new heavy-duty
11 trucks and light-duty passenger cars, which phase in
12 tighter emission standards, along with phased in
13 zero-emission requirements. Our suggested alternative
14 would enable small businesses to reduce emissions from
15 their fleets while investing for the transition to ZEE.
16 It would also allow more time for the larger more
17 challenging-to-electrify equipment to overcome performance
18 and utility issues that may delay immediate introduction
19 of ZEE into the commercial sector.

20 While residential ZEE have seen a natural
21 progression to upwards of 50 percent penetration, the
22 commercial sector lags in the uptake of electric models.
23 We believe that this is an opportunity for existing
24 emission control technologies to significantly reduce
25 emissions from non-electric equipment.

1 Cost effect technology, such as electronic fuel
2 injection, advanced catalysts, and evaporative system
3 components can be applied to SORE for under \$200 per unit
4 as estimated by U.S. EPA and the Consumer Products Safety
5 Commission in a recent rulemaking for portable generators.

6 To conclude, MECA thanks CARB staff for their
7 efforts. We believe there is an important opportunity to
8 pragmatically clean up SORE through a combination of
9 strategically deploying cost-effective emission controls
10 while simultaneously transitioning the SORE fleet to zero
11 emission. This will allow a few more years for the
12 largest ZEE equipment to improve its utility and
13 performance to meet the needs of many small businesses.

14 Our industry is committed to commercialize the
15 technologies that will help enable this goal.

16 Thank you very much for your time.

17 BOARD CLERK ESTABROOK: you may unmute and
18 begin.

19 DAVIS HARPER: Good morning Chair and Board --
20 or, can you hear me?

21 Okay. Good morning, Chair Randolph and Board
22 Members. My name is Davis Harper and I'm the San Joaquin
23 County community organizer for The Climate Center. We
24 strongly support CARB in moving swiftly to implement this
25 transition to zero-emission small off-road engines. The

1 climate benefits to making this switch can't be overstated
2 as we're seeing more extreme weather due to climate change
3 every year. It's a code red for humanity and every bit of
4 warming matters.

5 In 2020, pollution from California's lawn
6 equipment was higher than emissions from passenger cars.
7 Banning leaf blowers and other small gas engines is
8 low-hanging fruit in our collective efforts to
9 dramatically cut greenhouse gas emissions, which
10 disproportionately pollute communities of color and are
11 driving increasing extremes in wildfires, drought, heat,
12 and floods.

13 Additionally, the public health benefits are
14 substantial. Exhaust from gas-powered leaf blowers
15 contains asbestos and lead that ends up getting inhaled by
16 the equipment operators. CARB's analysis found that these
17 new regulations could save nearly 900 lives and reduce
18 hundreds of ER visits and hospitalizations related to
19 respiratory and cardiovascular issues.

20 Dozens of cities have already enacted some form
21 of a ban on polluting lawn equipment. It will likely take
22 a few years to completely replace the existing inventory.
23 But given the rapid improvements in electric lawn
24 equipment, it's likely the old gas versions will phaseout
25 quickly.

1 Thirty million dollars supporting this transition
2 is a great start, but there will likely need to be more
3 funding to support training programs and small business
4 owners who will be impacted as well. California should
5 accelerate its efforts to partner with local governments
6 to speed up and scale up enactment of this new law. Thank
7 you for the opportunity to comment.

8 BOARD CLERK ESTABROOK: Ben Granholm, please
9 unmute and begin.

10 BEN GRANHOLM: Good morning, Chair Randolph and
11 Board. My name is Ben Granholm on behalf of the Western
12 Propane Gas Association. Thank you for the opportunity to
13 comment today. WPGA would like to align ourselves with
14 the comments made by a number of previous speakers working
15 to clean California's air and help the State meet its
16 emissions reduction goals. WPGA, along with many others,
17 are strong supporters of clean energy, and appreciate the
18 time and effort that the Board and staff have dedicated to
19 the SORE regulation.

20 Unfortunately, the amendments before you today do
21 not fully appreciate the fact that spark-ignited portable
22 generators are a unique product used primarily for
23 emergency home back-up power, unlike other SORE equipment
24 and zero-emission generators, which are primarily used for
25 discretionary activities.

1 The current proposed amendments are neither
2 technologically feasible nor cost effective, because
3 zero-emission generators do not perform the same functions
4 as spark-ignitable portable generators and are also orders
5 of magnitude more expensive.

6 Innovation in the industry has resulted in
7 alternative fuels providing greater reliability,
8 affordability, and resiliency to residents, while also
9 providing greater fuel -- full fuel cycle emission
10 reductions than that of electric. Specifically, the
11 propane industry has invested heavily in the development
12 of renewable propane, derived from sustainable sources
13 like beef tallow or used cooking oil. Renewable propane
14 is also completely fungible with current propane fuel
15 technologies, allowing consumers to use renewable propane
16 as drop-in solution without the cost burden of purchasing
17 new equipment to help reduce emissions.

18 Finally, we've heard staff say many times
19 throughout the process that the SORE regulation does not
20 apply to stationary engines, such as those fueled with
21 propane at a home for back-up power. However, there does
22 not seem to be a definition anywhere in the regulation
23 that specifies what constitutes stationary equipment
24 versus portable. We reached out to staff last week, but
25 unfortunately did not hear back, so clarification -- if

1 clarification could be provided today, that would be much
2 appreciated.

3 With all the previous-stated reasons above, WPGA
4 respectfully requests that CARB provide these
5 specifications for stationary versus portable and provide
6 true consideration for the alternative proposals submitted
7 a PGMA, EMA, OPEI, and other industry stakeholders.

8 Thank you.

9 BOARD CLERK ESTABROOK: Our next speaker will be
10 Joani Woelfel. After Joani will be Tom Jordan, Jeff
11 Brown, and then Gabe Foo.

12 Joani, can you please unmute and begin.

13 JOANI WOELFEL: Good morning. My name is Joani
14 Woelfel with Far West Equipment Dealers Association
15 representing agricultural, industrial, material handling,
16 outdoor power, and rental equipment dealers across
17 California. Thank you for the chance to speak on proposed
18 amendments to SORE regulations banning new sales of
19 gas-powered SORE by 2024. Please refer to our written
20 comments submitted as we cannot cover all of our concerns
21 here.

22 The equipment industry is plagued with supply
23 chain disruptions that have pushed out new orders as much
24 as two years and increased costs for users. Combining
25 equipment sales of gas-powered equipment and new

1 commercial ZEE with insufficient performance that is not
2 widely available compounds this problem, as does stocking
3 and managing equipment and parts for both over the next
4 several years. Dealers are burdened with the added
5 expense of charging infrastructure and stocking a large
6 volume of batteries required to power ZEE.

7 Estimates show a single landscaper would need 35
8 batteries per day to perform as they do now. This would
9 incur a minimum of two million batteries stocked at any
10 given time to supply an estimated 55,000 landscape
11 businesses. A full transition is conservatively estimated
12 to be a minimum of more than 12 million batteries based on
13 CARB's inventory. The volume of batteries a dealer would
14 need to keep in inventory poses significant logistical,
15 safety, and environmental concerns. These demands are
16 compounded for dealers who offer rental or loaner
17 equipment.

18 FWEDA also shares concerns previously expressed
19 about equipment for -- supplied for first responders.
20 Managing the phase-out of gas-powered equipment and the
21 phase-in of ZEE is a substantial burden for dealers who
22 sell across the different equipment sectors CARB regulates
23 and intends to phase out over the next several years, and
24 some that are not yet feasible for ZEE.

25 The handling, maintenance, storage, and disposal

1 of batteries becomes a dealer liability and expense.
2 Dealers will also assume liability and repercussions for
3 illegal consumer disposal of dead batteries. FWEDA
4 understands the need to improve air quality but we
5 emphasize that our small business customers will
6 experience a dramatic negative impact associated with this
7 transition on this timeline. FWEDA joins other
8 stakeholders in asking CARB to delay implementation of
9 this transition to zero-emissions equipment solely for
10 commercial professional-grade SORE until model year 2028
11 or later.

12 Thank you.

13 BOARD CLERK ESTABROOK: I would just like to make
14 a -- send a reminder for the -- on behalf of our court
15 reporter and interpreters, when you're giving your
16 testimony, please be sure to enunciate and speak clearly.

17 And then our next speaker will be Tom Jordan.
18 You can unmute and begin.

19 TOM JORDAN: Thank you, Chair Randolph and
20 members of the Board for the opportunity to comment. My
21 name is Tom Jordan. I'm with the San Joaquin Valley Air
22 Pollution Control District. As you're aware, the San
23 Joaquin Valley has difficult air quality challenges and
24 most community level air pollution and toxics impacts come
25 from mobile sources. Emissions from small engines are an

1 important source of emissions to address, as we move
2 forward with our clean air efforts. And for years, air
3 districts have partnered with landscapers, CARB, and other
4 stakeholders to identify opportunities for reducing
5 emissions from this sector.

6 For example, we have been offering funding
7 through an innovative grant program to exchange
8 residential gas-powered lawn care equipment for
9 zero-emission equipment since the early 2000s and added a
10 commercial lawn care grant program in recent years. What
11 we've learned through these efforts is that zero-emission
12 equipment is more readily available, but significant
13 challenges remain in widely deploying this equipment.

14 The District supports efforts to reduce emissions
15 from this sector and recognizes that this transition will
16 not be an easy one that will require ongoing evaluation of
17 technologies and will need significant new funding to
18 assist in the transition.

19 This funding and need for ongoing attention and
20 support is particularly important for small businesses and
21 residents, especially in disadvantaged and rural
22 communities that would be most impacted by this effort.
23 Thank you for your efforts and for the opportunity to
24 provide comments on this item.

25 BOARD CLERK ESTABROOK: Jeff Brown, you can

1 unmute and begin.

2 JEFF BROWN: Yes. This is Jeff Brown, Amador
3 County Supervisor. I would like to say that I live in the
4 high country and I also have a portable generator that
5 takes care of my house. Last year of 2020, I was out of
6 power at my home for over 20 days, not consistently, but
7 up to about five days during the wintertime. Solar and
8 other situations will not be available, because I have
9 trees around my house in the up-country. Like right now,
10 it's snowing at my home, so there would be no access to
11 electricity. You asking me to not to have a portable
12 generator is like you asking PG&E to give us 99 percent
13 reliability at my home, and that is just -- it can't
14 happen.

15 I think the staff has been giving you a little
16 lip service as far as disadvantaged residents, because a
17 lot of them use just the size generator for their home
18 that they can afford. You know, some of them use a small
19 just to keep their medical equipment running and any other
20 type of equipment.

21 What I'm asking is to -- for you to go into --
22 you went to University of Fullerton. I ask you to go to
23 an agricultural university and ask some more of the
24 questions that will help a rural area. Disadvantaged
25 residents in the rural areas have a lot more problems than

1 anybody in the city. And I'd ask you to please do some
2 more questioning about generators. As we've seen from the
3 RV, marine generators are an essential part of our life,
4 and I would appreciate -- please ask that you do a little
5 bit more investigation dealing with generators themselves.

6 Thank you for your time.

7 BOARD CLERK ESTABROOK: ...will be Gabe Foo.
8 After Gabe will be Garry Enyart, Daniel Mabe, and Matthew
9 Spendlove.

10 Gabe, you may unmute and begin.

11 GABE FOO: Thank you, Chair Randolph and the
12 Board for the opportunity to speak to you guys today. My
13 name is Gabe Foo. I'm from a business called Gardenland
14 Power Equipment. We're an independent outdoor power
15 equipment dealer located in Silicon Valley. We also
16 happen to be the largest retailer in the United States
17 selling battery-powered equipment and have actually been
18 working through the transition from gas to ZEE equipment
19 for the past nine years.

20 There's a couple things that I'd like to comment
21 on regarding the transition timeline, just to give some
22 feedback on the reality of this transition. In
23 addition -- the first thing is the retailers that are 600
24 plus retailers like us in California, we will be forced
25 by -- be being forced to sell battery-powered equipment,

1 it's going to reduce our profitability from both the
2 profit margin selling ZEE equipment and the elimination of
3 the service revenue that a lot of the dealers make today.

4 Other things that are critical are the lack of
5 affordable commercial quality ZEE equipment. The reality
6 is there's less than a dozen manufacturers out there. And
7 I won't go into the supply chain challenges they face, but
8 the number isn't 42 ZEE manufacturers.

9 The conversion to battery-powered equipment is
10 very expensive and could cost up to three to four times
11 the cost for gas powered. A typical cost to convert one
12 landscape crew to battery powered is probably between six
13 to fifteen thousand dollars, and that's cost prohibitive
14 to many of the landscape businesses that are out there.

15 Two other things. Charging infrastructure is
16 limited. There isn't enough battery power -- or
17 electricity in many buildings and homes to charge all this
18 battery every night. And actually many of the small
19 manu -- small landscape companies don't have access to
20 electricity every night. The power supply from PG&E grid
21 may be on short supply from the high demand.

22 And the last thing is, what is the plan for
23 battery recycling, because that needs to be addressed in
24 addition.

25 Thank you very much for your time and the

1 opportunity to speak on behalf.

2 BOARD CLERK ESTABROOK: Garry Enyart, please
3 unmute and begin.

4 GARRY ENYART: Thank you, Chair Randolph. My
5 name is Garry Enyart and I lead the fixed mount RV
6 generator business at Cummins. We are the primary
7 supplier of RV generators to the industry. And as you've
8 heard, they allow users to enjoy the comforts of home,
9 including air conditioning, medical device usage, and one
10 application that hasn't been mentioned, keeping their pets
11 cool while they're away from their RVs for short periods
12 of time.

13 We've modeled usage patterns of what it would
14 take to provide the needs of campers for a typical
15 vacation outing without a fixed-mount generator by using a
16 battery solution. The amount of batteries required, the
17 footprint of those batteries, and the cost of the
18 batteries and other related controls and accessories are
19 cost prohibitive at this time.

20 As an example, for a Class A motorhome, which has
21 a fixed mount generator at a cost of around \$4,000, a like
22 battery system would cost 90 to \$100,000, wouldn't have
23 the same functionality as the generator, making the
24 purchase of that RV cost prohibitive for most consumers.
25 Likewise, solar solutions are not able to keep up with the

1 power needs of an R V.

2 Lastly, Cummins, the company I work for, has a
3 rich history of providing products that limit emissions.
4 We have aggressive emissions reduction goals, and most
5 recently formed a new energy power division and invested
6 hundreds of millions of dollars in both mobile and
7 stationary fuel cell companies, battery technology and
8 green hydrogen production. We, too, are power solution
9 agnostic and we embrace future zero-emissions technology,
10 but recognize that the adoption of these technologies will
11 take some time.

12 Based on this information, we request that staff
13 revisit our product category and reclassify the RV
14 fixed-mount generator product consistent with the requests
15 of previous RV stakeholders who have spoken at today's
16 Board meeting.

17 Thank you.

18 BOARD CLERK ESTABROOK: ...you can unmute and
19 begin.

20 DANIEL MABE: Good morning, Chair Randolph,
21 Governing Board members. I'm Dan Mabe, President of the
22 American Green Zone Alliance, otherwise known as AGZA.
23 AGZA was formed by gas operators for gas operators and
24 others who wish to explore lower impact operations and
25 business models for landscape maintenance. AGZA has been

1 on the front lines for over a decade introducing
2 low-impact maintenance strategies for the grounds
3 maintenance industry.

4 Today, we refer to the science of the CARB staff
5 to make what we see are sometimes difficult decisions of
6 needing to reach out -- reach attainment goals and clean
7 up our air, while taking into consideration the impact on
8 small business owners and operators. We appreciate that
9 CARB has made an effort to understand the complexities and
10 needs of the outdoor power and grounds maintenance
11 industries and encourage CARB to continue to expand on
12 those efforts.

13 AGZA recognizes CARB's feasibility determination
14 on when to regulate SORE in the state of California and
15 trust there would be considerations and contingencies for
16 any supply chain issues and further address much more
17 needed resources to buy down the cost for operators.

18 For commercial electric equipment
19 implementations, we would like to stress that our
20 successful projects of converting entire cities,
21 universities, and school districts to mostly electric
22 operations were not solely a result of equipment
23 improving. It involved building trust, including everyone
24 as stakeholders, and providing critical outreach,
25 education, and workforce training our industry needs as

1 much as other industries who are helping to mitigate air
2 pollution and combat climate change.

3 We need to work together. I thank you for
4 receiving our testimony today.

5 BOARD CLERK ESTABROOK: The next speaker will be
6 Mike -- Matthew Spendlove. After Matthew will be Mitch
7 Domingos, Casey Bliss, and then Joel Ervice.

8 Matthew, please unmute and begin.

9 MATTHEW SPENDLOVE: Thank you. My name is Matt
10 Spendlove, Managing Director of Next-Gen Power Systems. I
11 appreciate the opportunity to speak to you today about our
12 company and the impact of the proposed ban on the RV
13 industry.

14 We launched our company in June of 2020 and are
15 now one of two companies nationwide that manufacture and
16 sell RV on-board generators. Our mission, as stated in
17 our name, is to provide the RV industry with the most
18 advanced power systems available on the market.

19 Our vision at Next-Gen Power Systems is to create
20 reliable, stable, safe, affordable clean power for the RV
21 industry. We currently manufacture two models, both fixed
22 mounted RV on-board generators. Our generators use the
23 most advanced technology available today and both models
24 utilize inverter technology. This technology regulates
25 power use based on demand and significantly increases fuel

1 economy.

2 We partnered with Yamaha and used one of the
3 cleanest most efficient gas-powered engines produced
4 worldwide. With the understanding the world is becoming
5 electrified, one of our stated goals is to reduce
6 emissions by investing new technology. We know that the
7 future is now. We have already allocated resources and
8 time to develop and power systems to meet the rising
9 demand for hybrid and ZEE options.

10 We recognize the importance of taking care of the
11 environment and standing behind policies that keep our
12 skies and waterways healthy and clean. Our entire client
13 base is develop -- is dependent on having beautiful clean
14 national parks to visit and would be detrimental to our
15 long-term success if this beauty was destroyed over time.

16 We're currently working as quick as we can to
17 find ways to meet the interim CARB emission standards for
18 2024 and ZEE alternative for 2028. However, the stated
19 timelines for stricter standards and outright ban are not
20 long enough to support an economically feasible,
21 responsibly-priced product designed to meet and support
22 the needs of the average RV client.

23 Therefore, we stand in opposition of this ban of
24 the following reasons. RV generators are fixed, mounted,
25 stationary, should not be considered portable. The ZEE

1 technology for RV on-board generators does not currently
2 exist. The ZEE alternative is not feasible for the vast
3 majority of RVs at this time. RV generator emissions are
4 a fraction of one percent of the overall SORE emissions.
5 Currently, engines globally do not meet the proposed 2024
6 stricter standards. Potential for severe negative impact
7 industry-wide resulting in job losses, bankruptcies,
8 reduced revenue, and reduced business development
9 investing into California.

10 For the above reasons, we're asking for the Board
11 to consider the following changes to the proposal. One,
12 treat RV on-board generators as stationary --

13 BOARD CLERK ESTABROOK: Your time is up.

14 MATTHEW SPENDLOVE: --- thus exempt from the
15 proposal.

16 Two, eliminate the 2024 --

17 BOARD CLERK ESTABROOK: Next speaker will be
18 Mitch Domingos.

19 You can unmute and begin.

20 Mitch, are you there?

21 I'll try coming back to you.

22 Casey Bliss.

23 CASEY BLISS: Hello. Can you hear me?

24 BOARD CLERK ESTABROOK: Yes, we can.

25 CASEY BLISS: Hello. Yes. My name is Casey

1 Bliss and I am the third generation owner of Bliss Power
2 Lawn Equipment in Sacramento, California.

3 As a company, we applaud the Board for its
4 efforts in reduction of carbon emissions. As a retailer,
5 we support the movement to ZEE. However, we support it
6 with comment and concern.

7 We are actively selling ZEE product in our store
8 and we are seeing significant growth in the homeowner
9 category with overall happy customers. It is our opinion
10 that our industry is not ready at all for the large
11 landowners, landscapers, municipalities, and first
12 responders. We also are very concerned that end users, as
13 stated many times earlier today, will just go to bordering
14 states to buy their products. And we've been a retailer
15 all through the CARB program and it has been demonstrated
16 time and time again of products coming into our store for
17 service warranty that have been purchased outside the
18 state that don't meet our California emission standards.

19 And basically, we're concerned that the
20 regulation and the time frame of what you're proposing has
21 a very, very strong possibility of dealing the death blow
22 to our company and all other power equipment retailers in
23 the state.

24 Those are our concerns. Thank you for allowing
25 me the time.

1 JOEL ERVICE: Hi. Can you hear me?

2 BOARD CLERK ESTABROOK: We can hear you.

3 JOEL ERVICE: Hello.

4 Great. Thank you. Chair Randolph, members of
5 the Board, my name is Joel Ervice, the Associate Director
6 with RAMP, Regional Asthma Management and Prevention, a
7 project of the Public Health Institute. RAMP's mission is
8 to reduce the burden of asthma with a focus on health
9 equity.

10 I'm speaking today in strong support of the staff
11 proposal and urge you to move this life-saving rule
12 forward. California is home to significant air pollution
13 challenges and we know that this sector is increasingly
14 taking a major role in harmful emissions. CARB staff
15 notes that the SORE category now contributes more
16 smog-forming pollution than all of the cars on
17 California's roads.

18 This is shocking and underscores why the
19 transition to zero emissions is so urgently needed. We
20 know the terrible toll that poor lung health can take on
21 an individual and that the burdens of unhealthy air do not
22 follow equally here in California.

23 We believe that lung health will improve broadly,
24 locally, and for workers exposed for hour after hour to
25 the exhaust emissions from this equipment. CARB staff

1 notes that nearly 1,000 lives will be saved through
2 transitioning to zero-emission sales.

3 The Legislature, Governor Newsom, and CARB itself
4 have taken recent actions to spur the transition to zero
5 emissions in the small off-road engine category. The
6 requirements for new engines phasing into zero emissions
7 starting in 2024 is an important action that must be taken
8 today.

9 Within the implementation, outreach to small
10 landscapers should be a priority action for CARB to ensure
11 small companies are supported in understanding what the
12 policy is and what funding is available to accelerate the
13 transition, and to ease the burden on them. RAMP joins
14 with many health and medical organizations in calling for
15 CARB to approve the proposal today and implement the
16 program without delay.

17 Thank you very much.

18 BOARD CLERK ESTABROOK: The next speakers will be
19 Eric Tower, and then Donald Cochran, and Jim Waters.
20 Eric, please unmute and begin.

21 Eric, are you there?

22 ERIC TOWER: Yes. Sorry about that.

23 BOARD CLERK ESTABROOK: No worries. Go ahead.

24 ERIC TOWER: Okay. Hi. My name is Eric Tower.
25 And I am a power washing contractor based out of

1 Fullerton, California. It's pleasure to have the
2 opportunity to speak with you today and express our
3 concerns about AB 1346.

4 Now, I say "our", because I am speaking for the
5 end user, the contractor, the men and the women in the
6 trenches. I am not a manufacturer or a distributor,
7 strictly a mobile contract cleaner. My company focuses on
8 health, safety, and fire prevention cleaning services for
9 the commercial market throughout Southern California. We
10 remove fuel from commercial kitchen exhaust systems to
11 prevent fires, which is required by federal law. Check
12 out the NFPA 96.

13 Our -- we power wash sidewalks to keep the
14 walkways and dumpster areas slip resistant per OSHA
15 guidelines, not to mention sanitize, which reduce odor,
16 pests, and rodents. We reclaim all of our wash water, so
17 we're not contaminating our waterways to obey with the
18 Clean Water Act, which is another federal law. I believe
19 there's great benefits to our industry to the State of
20 California.

21 Most mobile contract cleaners operate over the
22 night, which I'm not sure you're aware of. We need this
23 equipment to keep California a safer and cleaner
24 environment. With all the knowledge that I have, I can
25 assure you, with your current ambitions, which I applaud

1 you for, by the way, I am a man of science, ethics, and
2 providing a better quality of life for all, but I know
3 this would directly affect the end user, which is most --
4 which mostly is primary -- or is primarily made up of
5 minority groups and low-income individuals.

6 On Page 44 of the proposed amendments of ISOR, it
7 is acknowledged that there's no battery-operated pressure
8 washer for professional use, which I completely agree with
9 this assessment on, because there's truly nothing
10 currently or in foreseeable future available or feasible
11 in the marketplace for ZEE. Please reconsider the
12 professional -- profession -- I'm sorry, professional
13 pressure washing industry for your conditions and time
14 lines with AB 1346. Thank you so much for your time.

15 BOARD CLERK ESTABROOK:please unmute and
16 begin.

17 DONALD COCHRAN: Hi, Board and Chairperson.
18 Thank you for the opportunity to speak today. I just
19 wanted to add my name to the other RV industry
20 professionals, as well as marine that talked about the
21 need to exempt on-board generators from this bill.

22 My name is Donald Cochran, Chief Sales Officer
23 for Northwood Manufacturing and Outdoors RV. And again,
24 as already stated, you know, this will have a great effect
25 on manufacturing in the state of California, as well as

1 RVs that are sent into the state, as well as the many
2 dealers that sell -- the thousands of dealers that sell
3 RVs in the State of California.

4 The only other point that I want to bring up,
5 along with all those other points that were talked about,
6 is just the overall effect that it would have on demand
7 for RVs in the state of California. This would have a
8 long-term effect that would lower demand for RVs. If you
9 RV in the state of California, you know that it's very
10 tough, almost impossible, to find a great location that
11 offers power, so then you're forced to use something else
12 like an on-board generator that would be with that to
13 enjoy the many great spots we have in the state of
14 California.

15 As stated by Mark Rosenbaum from Mike Thompson's
16 RV, the use of the generator on the RV is very minimal,
17 although it does add to the overall experience. It
18 enables our customers to use that generator, to use
19 that -- the full RV in that experience. And because of
20 that, when you look at alternate sources like solar power,
21 inverters, lithium batteries, it almost doubled, sometimes
22 even cost more than the RV itself, eliminating those who
23 would be able to afford an alternate power option for
24 their RV, if one was even available that could do what a
25 generator does today.

1 I ask the Board again just as they look at this
2 bill to hold out the generators that are on board on RVs,
3 that they are not part of this bill, that they are
4 considered stationary, so that we can continue to enjoy
5 this great state and the RV sites that are available to
6 us.

7 Thank you for your time today, Board.

8 BOARD CLERK ESTABROOK: The next speaker will be
9 Jim Waters. After Jim will be Gregg Brodsky, Tammy
10 Stafford, and then Michael Carroll.

11 Jim, please unmute and begin.

12 Jim, are you there?

13 All right. I will come back to you. Gregg
14 Brodsky, please unmute and begin.

15 It look like you're unmuted. Gregg, can you go
16 ahead and begin.

17 GREGG BRODSKY: Thank you. I want to thank the
18 Board and staff for allowing our comments today. My
19 written comment, number 559, is posted on the CARB
20 website. Again, my name is Gregg Brodsky representing the
21 Cleaning Equipment Trade Association as past President and
22 active manufacturing member.

23 I am a 50-year veteran that understands the
24 technical environmentally driven mandate under review and
25 can assure CARB that we want to be part of the solution

1 not the problem. And again, I'm referencing back to
2 something that's been mentioned numerous times, but the
3 solar -- or the aforesaid SRA amendment dated 9/20 of '21,
4 "CARB staff is not aware" - and again I'm quoting - "CARB
5 staff is not aware of any cordless professional grade
6 pressure washer available for sale at the time of this
7 writing. The analysis assumes some users of professional
8 grade power washers would use zero-emission generators
9 with a power professional grade corded pressure washers".

10 The problem with the ZEE here is that the
11 majority of it is going to have to go low voltage. And
12 that's the one thing that we're mandate by safety
13 regulations in the country to no longer then 36-foot
14 extension cords, but most of these would be 220 volt,
15 three-phase power, which enhances the possibility of
16 electrocution immensely.

17 We appreciate -- we appreciate CARB's staff
18 openness to meet with our group to discuss our issues and
19 the mutual understanding for the need of milestones,
20 technically-driven adjustments, and/or amendments, and to
21 be cost effective. We've got power units that are
22 available now that would be in the 5 kW category. In
23 order to be comparable to these same pieces of equipment
24 that we're using in a gas engine drive today that would be
25 Comparable to a 9.7 horse or -- excuse me, a 9.7 kilowatt,

1 or 13 horse, would be 50,000 watts that would be required.
2 That unit is hitting the field today at 2,350 to the end
3 user.

4 A comparable product like that, which again we as
5 a manufacturer it would be both, but with a 10 percent
6 margin, would be over \$91,000 to the consumer. So we're
7 pleased to hear the staff is recommending the extended
8 time to 2028 to treat 225 cc and larger gas engine drive
9 pressure washers the same as ZEE.

10 In April 2014, pressure washers were removed from
11 the preempt application list, even though most of the
12 equipment that remains on the list as of today is remotely
13 cleaned by our products. We are asking staff to review
14 and submit back to the Board to reinstate pressure washers
15 above 250 cc as a preempt till technologies can evolve. I
16 want to just briefly discuss --

17 BOARD CLERK ESTABROOK: Your time is up.

18 Jim Waters, let's try if you can unmute again.

19 Okay. Jim, if you're having difficulties, please
20 call in with the call-in number located on the screen now
21 and we'll try you again in a bit.

22 Let's go to Tammy Stafford. Please unmute and
23 begin.

24 TAMMY STAFFORD: My name is Tammy Stafford. I'm
25 Divisional Vice President of Harbor Freight Tools, a

1 family-owned specialty tool retailer headquartered in
2 Southern California with over 120 stores in California,
3 1,200 stores nationwide, and 24,000 employees. We are a
4 leading seller of gas-powered portable generators that
5 provide affordable back-up power to Californians during
6 power outages. When electricity is not available due to
7 wildfires, earthquakes, and Public Safety Power Shutoffs,
8 gas-powered portable generators can provide life-saving
9 back-up power to critical appliances in homes and be
10 quickly refueled during an outage.

11 From an environmental perspective, portable gas
12 generators only comprise three percent of the small
13 engines in California and are used episodically during
14 power outages and do not present a daily source of
15 emissions like automobiles or gas-powered lawn and garden
16 equipment.

17 Zero-emissions portable generators are not
18 readily available, not affordable, and cannot be easily
19 recharged in the event of a power outage, meaning the
20 proposed amendments are not in compliance with AB 1346.

21 While Harbor Freight is very supportive of
22 efforts to work toward a zero-emissions goal when that
23 technology is developed and generally available to
24 Californians regardless of income level. We are many
25 years from that point with respect to portable generators.

1 Today, a zero-emissions alternative to portable
2 generators is over 700 percent more expensive and is far
3 less usable for power outages lasting more than a few
4 hours. If electricity is unavailable during a power
5 outage, there is no way to recharge zero-emissions
6 portable generators unless very expensive solar arrays or
7 back-up batteries are also purchased. And solar arrays do
8 not work during cloudy days. It is not equitable to
9 impose this requirement at this time. It is incumbent
10 upon this Board to protect and represent the interests of
11 all Californians, regardless of income level.

12 All small off-road engines are not the same. You
13 owe it to your constituents to ensure that portable
14 generators are not taken away from them during a time when
15 they are still critically needed and that cost-effective
16 alternatives do not yet exist.

17 BOARD CLERK ESTABROOK:Michael Carroll.
18 After Michael will be Will Barrett, Steven Colome, and
19 then a phone number ending in 761.

20 Michael, please unmute and begin.

21 MICHAEL CARROLL: Thank you. This is Michael
22 Carroll with Latham and Watkins, LLP on behalf of the
23 Portable Generator Manufacturers Association, or PGMA.

24 Portable generators are very different from the
25 other types of equipment covered by the SORE regulations.

1 They are emergency equipment. Californians rely on
2 portable generators to keep themselves and their families
3 safe and secure when they lose access to grid power. This
4 is not lawn and garden equipment.

5 The increased wildfire risk in California is
6 undeniable. To combat wildfire risks, the State has
7 implemented Public Service[SIC] Power Shutoffs. Since
8 2013, there have been almost 5,000 PSPS events, with an
9 average duration of about 35 hours. Spark-ignited
10 portable generators are an excellent solution for home
11 back-up power during extended power outages, and
12 importantly they are affordable. Zero-emissions portable
13 generators are not capable of providing the output and
14 runtime necessary for home back-up power and are
15 prohibitively expensive.

16 The ISOR does not provide evidence that any of
17 these key factors will improve by 2028. In passing AB
18 1346, the Legislature recognized the limited availability
19 of zero-emission portable generators. It amended the bill
20 in the Senate to specifically require that CARB consider
21 the expected availability of zero-emission generators. As
22 stated by Senator Hertzberg on the floor of the Senate,
23 and I quoting, "If there are any folks from CARB listening
24 to this, please, as you implement regulations, understand
25 and listen to the Legislature, and the comments they are

1 making, and what guidance they are giving you as you move
2 forward". But staff did not listen and proceeded with its
3 previous proposal less than one month after AB 1346 was
4 signed into law. The staff proposal does not reflect the
5 guidance provided by the Legislature.

6 PGMA has proposed an alternative to staff
7 proposal that will address the needs of the California
8 consumer and meet CARB's mandate to reduce emissions. The
9 PGMA proposal would substantially reduce emissions from
10 all portable generators by 2026 and require zero-emission
11 generators as early as 2031, and no later than 2035. We
12 urge the Board to adopt the PGMA proposal.

13 Thank you.

14 WILL BARRETT: Hi. This is Will Barrett with the
15 American Lung Association. Thank you very much for giving
16 me a few minutes to speak. You've heard from
17 Assemblymember Berman today. You've heard from my
18 colleagues at the Lung Association, the Coalition for
19 Clean Air, RAMP's asthma experts, community groups, and
20 air districts all speaking to the importance of the
21 proposals. I'm speaking today again on the behalf of the
22 Health Professionals for Clean Air Network and the many
23 health organizations, doctors, and nurses who couldn't be
24 here to voice their support today.

25 We support the proposed zero-emission SORE rule

1 as a critical public health, occupational health, and
2 health equity issue. The health benefits of this rule go
3 far beyond those that have been quantified by the staff.
4 And it's important to note just how substantial they are.
5 Over the course of the program, we expect to save 900
6 lives, nearly nine billion in public health benefits. We
7 appreciate that CARB is taking a manufacturer-based and
8 technologically-feasible approach to phasing in sales of
9 new zero-emission equipment in 2024 for landscaping and as
10 far out as 2028 for generators. And there's additional
11 time that's going to pass due to credits in the proposal.

12 So there's a long time out for a lot of these
13 rules to hit. CARB must really continue to monitor
14 technology improvements along the way, but again must act
15 today to set the bar for zero emissions without delay.
16 The proposals don't take away any equipment that's on
17 the -- you know, in use today and that is going to
18 continue to operate for a long time after the new sales
19 standards begin. I think that's important to just restate
20 that.

21 The proposed amendments follow direction from the
22 Legislature by AB 1346 from Governor Newsom's Executive
23 Order, the Mobile Source Strategy that the Board heard in
24 October, the State SIP, and the recent Board-approved
25 incentive funding to accelerate the transition to zero

1 emissions. We advocated for that 30 million in the State
2 budget and will continue to speak for additional funding,
3 but note that this 30 million is on the table now years in
4 advance of the rule requirements.

5 So with that, I thank you and urge you to approve
6 the life-saving proposal before you.

7 BOARD CLERK ESTABROOK: (Inaudible)

8 STEVEN COLOME: Hello. Yeah, this is Steve
9 Colome and I'm speaking as a public representative today
10 supporting adoption of the amendments before the Board.

11 While CARB and SORE manufacturers have endeavored
12 to reduce emissions, it is a chimera to reduce emissions
13 much further as we're up against the laws of physics.
14 Small IC engines are inherently polluting.

15 The reason I chose to speak today, listening to
16 the testimony, is that this discussion of ZEEs is
17 reminiscent of the conversion from incandescent to LED
18 lighting. Change can be challenging and there are often
19 hiccups along the way, but the final result is a win-win,
20 and the technology forcing is beneficial to all.

21 In 2018, the City of Ojai Public Works Department
22 converted all of its municipal equipment to battery
23 electric. And despite initial doubts, the Public Works
24 crew today would not return to the SORE equipment.

25 Instrumental in all of this was workforce

1 training, which for Ojai was provided by AGZA, allowing
2 the transition to be trouble free. So I applaud the
3 public outreach and training efforts that are embedded in
4 the -- the proposal today. I therefore encourage the
5 Board to avoid any further delays or carve-outs and pass
6 these amendments today as proposed by staff.

7 Thank you.

8 BOARD CLERK ESTABROOK: Thank you.

9a phone number ending in 761, please state
10 your name for the record before you begin and then you may
11 unmute and begin.

12 ERIC WOODRUFF: Hi. This is Eric Woodruff
13 calling from Generac Power Systems.

14 Well, we have many concerns with the proposed
15 amendments. They have pretty well been reiterated here
16 today and covered in a lot of the written comments. Our
17 primary concern at this point in the process is with
18 regards to some forward-looking technology solutions.

19 The Initial Statement of Reasons includes
20 hydrogen-powered generators as an alternative to current
21 gas -- gasoline generators. But the proposed regulations
22 don't appear to accommodate or make the most feasible
23 option. Generac strongly recommends CARB consider raising
24 the 2028 HC plus NOx emissions standards for generators to
25 accommodate hydrogen fuel generators.

1 All engines will have a certain level of oil
2 consumption to account for and therefore some level of
3 hydrocarbon emissions needs to be allowed. Similarly,
4 some level of NOx creation is to be expected from
5 in-cylinder combustion temperatures. Without these
6 considerations and based on the current proposed emissions
7 levels, hydrogen-powered generators will likely not be a
8 viable option to fulfill the requirements of emergency
9 portable generators in the future.

10 Appreciate your time. Thank you.

11 BOARD CLERK ESTABROOK: We're nearing the end of
12 our commenters. I'll go ahead and call out the remaining
13 names. We have -- first, we have a phone number ending in
14 468. Then we will hear from Alex Salazar, Phil Ingrassia,
15 Erin Rodriguez, and Steve Richardson.

16 Before that, Jim Waters, I will try again one
17 more time and see if we're able to hear you.

18 You should have a prompt to unmute.

19 Okay. I do apologize, we're not able to hear you
20 and it doesn't appear that you're unmuted on your end. If
21 you can try calling in, I'll keep an eye out for a new
22 phone number popping up. Otherwise, you can send a
23 comment to the send-us-your-comments page that's linked on
24 the public agenda.

25 So let's go to number -- phone number ending in

1 468. Please state your name before you begin and then you
2 may begin.

3 It looks like you've unmuted.

4 Are you there?

5 It does look like you have unmuted, but we cannot
6 hear you. I will try coming back to you in a bit.

7 Let's go to Alex Salazar. You can unmute and
8 begin.

9 Alex, are you there?

10 We aren't able to hear you, Alex. I do see that
11 you've unmuted.

12 ALEX SALAZAR: Hello.

13 BOARD CLERK ESTABROOK: Yep. Okay. We can hear
14 you now.

15 ALEX SALAZAR: Okay. Great. Thank you. Thank
16 you for the opportunity to speak. My name is Alex
17 Salazar. I am co-owner of Ground Care Landscape Company
18 and I'm based out of LA California. I've heard certain
19 people speak to this as an equity issue. I agree this is
20 an equity issue, but I disagree in the way that it's
21 presented. I'd like for the Board to play close attention
22 to the amount of commenters on this public hearing. Out
23 of all the public comments or commenters, how many have
24 been from the Latino or Hispanic gardeners who are -- who
25 seem to be the overwhelming users of the SORE equipment,

1 according to your documents.

2 Californians proudly consider themselves to be a
3 diverse and inclusive people. And I don't think that this
4 hearing appropriately reflects that with the amount of
5 participants. I am the first -- I am the first Latino or
6 Hispanic gardener speaking today.

7 So I'll -- I, along with my brothers, own a
8 successful small landscape maintenance business. We have
9 invested thousands of dollars on ZEE equipment. And we
10 have used various commercial grade ZEE equipment,
11 including the Stihl battery blower in combination with the
12 AR 3000 battery backpack, which is the most powerful
13 option available to us as professional gardeners today.

14 This tool is about five times more expensive than
15 the -- than the Stihl BR 500, which CARB is familiar with,
16 since it was one of the original pieces of equipment that
17 was used with the leaf blower exchange program.

18 We can honestly say that the commercial ZEE
19 equipment offering is not ready for long-term commercial
20 use. It is also currently more expensive and not less
21 expensive to maintain ZEE equipment. Fellow landscape
22 professionals who have invested heavily in ZEE equipment
23 have shared their frustrations with us with both the entry
24 cost and elevated upkeep costs due to the frequent
25 breakdowns of the equipment.

1 We're asking -- we're asking the Board to
2 consider delaying or providing some sort of exception for
3 professional use of SORE equipment.

4 Thank you.

5 BOARD CLERK ESTABROOK: Thank you.

6 Next, we will hear from Phil Ingrassia. Phil, we
7 have your two slides that you sent by email and so they're
8 up now. You won't see the timer, so I'll let you know
9 when your time has elapsed. But you can go ahead and
10 begin and say, "next slide", when you're ready for the
11 second slide.

12 PHIL INGRASSIA: Thank you very much. This first
13 slide just talks about the number of employees that are
14 working at RV dealerships in California and shows where
15 they rank in the U.S. So California is a very high
16 ranking state in a lot of economic categories.

17 And the next slide, please.

18 --oOo--

19 PHIL INGRASSIA: We agree with the previous
20 testimony regarding RV generators as being fixed mounts.
21 But I did want to let you know too from a national
22 perspective, I want to let the Board know that RVDA has
23 observed that when State regulations impact RVs and the
24 dealers that sell them in the state, consumers will travel
25 to buy from out-of-state dealers.

1 And this happens whether it's a tax break or, in
2 this case, a regulation impacting RV generators. RV
3 buyers will simply go across state lines to purchase the
4 RV equipped with the components they need. So this will
5 hurt California RV dealership, employees, their families,
6 while not really getting to the core air quality issue
7 when consumers can simply buy units out of state.

8 Thanks for your time today.

9 BOARD CLERK ESTABROOK: Thank you so much.

10 Erin Rodriguez, you may unmute and begin.

11 ERIN RODRIGUEZ: Thank you. Good afternoon,
12 Chair Randolph and members of the Board. Erin Rodriguez
13 with the Union of Concerned Scientists. Thank you for the
14 opportunity to comment today.

15 Overall, we appreciate and thank CARB staff for
16 all their work to bring forward new strategies to reduce
17 the impacts of SORE and we urge you to adopt this
18 proposal. As others have mentioned today, the transition
19 to zero-emission equipment for SORE is necessary to
20 protect the health of workers, residents, and support
21 attainment of health-based clean air standards.

22 UCS is also committed to advocating for more
23 incentive dollars for small businesses in the budget
24 process to complement the \$30 million that was already
25 allocated earlier this year. We hope that any funding

1 will also go to the needed robust outreach to small
2 landscape businesses as well as workforce training.

3 Again, we urge you to adopt this rule as proposed
4 without delay. Thank you.

5 BOARD CLERK ESTABROOK: Thank you.

6 Let's try the phone number ending in 468 one more
7 time. You should be able to dial star six to unmute.

8 MATTHEW BLAINE: Hello.

9 BOARD CLERK ESTABROOK: Hi. We can hear you.

10 MATTHEW BLAINE: Is this working? Okay.

11 BOARD CLERK ESTABROOK: Yes.

12 MATTHEW BLAINE: I tried a different system.

13 BOARD CLERK ESTABROOK: Please state your name.

14 MATTHEW BLAINE: Hi. This is Matthew Blaine --

15 BOARD CLERK ESTABROOK: Okay.

16 MATTHEW BLAINE: -- and I'm -- yes. My name is
17 Matthew Blaine. I'm part of the California Mountain
18 Biking Coalition. And our members are the local trail
19 groups who do maintenance on trails throughout the state
20 of California. It's done by thousands of volunteers,
21 staff, hand tools, electrical tools, and gas tools. And
22 we're big supporters of the environmental advantages of
23 zero-emissions equipment and are generally supportive of
24 this regulation.

25 However, we're also concerned that the

1 zero-emissions equipment is not ready for all users today
2 and in the timeline specified. Our particular concern is
3 remote use, similar to a concern exposed -- expressed by
4 the PCTA earlier. Some of our members work in urban areas
5 where you can plug things in easily, but many work in
6 remote areas, where you actually have to hike for hours to
7 get to equipment. So understand that the current gas is
8 about ten times as dense as batteries. So imagine today
9 you have to pack in 20 pounds of gas to work for a day,
10 instead you'd have to pack in 200 pounds of batteries.

11 So while these tools are small in number, they're
12 an essential importance for keeping these opportunities
13 open for recreation in remote areas and also for trail --
14 for firefighting and prevention needs.

15 So I hope that the Board and the staff if they
16 actually need some experience, I recommend going out for a
17 day with one of these voluntary organizations or some of
18 these professional organizations who talked to you today.
19 And we hope that there's a mechanism in the adopted
20 proposal to evaluate the availability of tools in a time
21 frame, such that if they're not ready in the 2024 time
22 frame, of if they are, there's a way to reevaluate to make
23 it possible to continue our work.

24 Thank you for listening.

25 BOARD CLERK ESTABROOK: Thank you.

1 Our final speaker for the item is Steve
2 Richardson. You can unmute and begin.

3 Steve, I do see it says that you're using an
4 older version of Zoom, and so it's not allowing me to
5 unmute. If you can please call in using the number on the
6 screen, that should allow you to speak. Let me -- the
7 other option is that you can submit your comment -- an
8 electronic written version of your comment to the docket
9 on the send-us-your-comments page from the public agenda.
10 I do apologize for that, Steve. We'll keep an eye for a
11 comment from you on the electronic docket.

12 And, Chair, that concludes the commenters.

13 CHAIR RANDOLPH: Thank you.

14 Okay. So it is 12:30. So what I am going to do
15 is go ahead and close the comment record on this agenda
16 item and then we're going to take a 45-minute lunch break,
17 and then we'll come back for Board questions and comments.

18 So I am now closing the comment record on this
19 agenda item. However, if it is determined that additional
20 conforming modifications are appropriate, the record will
21 be reopened and a 15-day Notice of Public Availability
22 will be issued. If the record is reopened for a 15-day
23 comment period, the public may submit written comments on
24 the proposed changes, which will be considered and
25 responded to in the Final Statement of Reasons for the

1 amended regulation. Written or oral comments received
2 after this hearing date, but before a 15-day notice is
3 issued will not be accepted as part of the official record
4 of this agenda item.

5 The Executive Officer may present the regulations
6 to the Board for further consideration, if warranted, and
7 if not, the Executive Officer shall take final action to
8 adopt or deny the regulations after addressing all
9 appropriate conforming modifications.

10 Okay. So we will return at 1:15 and take up
11 Board questions, comments, and discussion on this item.

12 Thank you.

13 (Off record: 12:26 p.m.)

14 (Thereupon a lunch break was taken.)
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1 AFTERNOON SESSION

2 (On record: 1:16 p.m.)

3 CHAIR RANDOLPH: Thank you. Welcome back from
4 our lunch break. And now that we have completed public
5 comment and closed the record, we will now bring it to
6 Board discussion.

7 I'm just going to sort of highlight some of the
8 key themes that we heard in the public comments and then
9 perhaps ask staff to share their initial thoughts to kick
10 off the discussion.

11 So we heard concern from -- about generators on
12 RVs and marines. We heard concern about rural folks and
13 generators at homes. We heard concerns about the
14 availability of cordless -- or lack of availability of
15 cordless power washers. And as staff mentioned in their
16 presentation, they had indicated a plan to make
17 adjustments to that timeline.

18 And then, of course, the concerns about
19 landscapers, who will need to transition to the new
20 equipment and potential challenges in terms of the cost
21 and the work that they do in transitioning to that new
22 equipment. So those are some of the key things that we
23 heard, along with other concerns of obviously about, you
24 know, cost, battery availability, supply chain issues.

25 So I'm going to turn it over to staff for a few

1 minutes to talk about their thoughts about some of these
2 issues and some of the implementation, challenges that
3 were discussed, and then I'm going to open it up to the
4 Board for further questions and discussion.

5 EXECUTIVE OFFICER COREY: Yeah, Chair. Catherine
6 Dunwoody will go to each of those points.

7
8 MONITORING AND LABORATORY DIVISION CHIEF
9 DUNWOODY: Thank you, Chair Randolph and Mr. Corey. So,
10 yes, the testimony was very clear. We heard a lot of
11 concerns about the need for the generators in larger SORE
12 category, especially for recreational vehicles and marine
13 applications. And we recognize that this is one of the
14 more challenging areas for zero-emission generators, which
15 is, of course, one reason why we had suggested extending
16 the time frame for compliance with the zero-emission
17 standards.

18 And similarly, the concerns with rural residents
19 who have been experiencing power outages and potentially
20 could be continuing to experience those power outages.
21 And so the importance of generators that can meet their
22 needs for life and safety, especially with health
23 equipment and food preservation, et cetera. So
24 definitely, you know, we have recognized these throughout
25 the process and recognized that zero-emission solutions,

1 while they may be available, are less prevalent and also
2 require some operating changes in terms of practices of
3 how people expect the equipment to perform and to sort of
4 serve their needs. So certainly a need for outreach and
5 this is the suggestion we had with the web tool also to
6 help people understand. But clearly, there needs to be
7 more direct outreach as well. So we would look to do
8 that.

9 With regard to pressure washers with the
10 information that was provided by the cleaning industry, we
11 did propose in our presentation a 15-day change to address
12 the concerns of higher pressure -- or higher powered
13 pressure washer devices equipment. And our understanding
14 is the pumps that were referred to are the size that will
15 be federally preempt. So we think that that issue will be
16 addressed by our proposed change.

17 And then, of course, with landscapers, we
18 definitely recognize that this is a change in operating
19 practices the use of zero-emission equipment, and that
20 there is a higher up-front cost, which is why we're
21 pleased that, you know, we do have the incentive funding
22 to get started on helping folks transition to the -- to
23 the new equipment. And, of course, along with that will
24 be workforce development to ensure that the businesses can
25 understand how to change operations to make this equipment

1 most effective.

2 So thank you for the opportunity to let you know
3 here what we're thinking about how to address these going
4 forward. I think it will be very important for us to
5 monitor, which we always do, you know, the status of the
6 market development for all of these categories and to, you
7 know, ensure that we're implementing this regulation
8 effectively going forward.

9 CHAIR RANDOLPH: So I guess I'm going to kick
10 this off with kind of a question around the point you just
11 made, which is sort of there are a lot of uncertainties in
12 this transition. And I kind of wanted to get a better
13 understanding of how we can implement ways to really
14 address that uncertainty through sort of, you know,
15 continued monitoring and understanding of where the market
16 is, where the supply chain is, right, because I don't
17 think our -- you know, our supply chain issues are not
18 going to last forever, so I don't think it should preclude
19 us from moving forward, but I also think that we need to
20 be cognizant of whether any of those issues will
21 significantly, you know, change the cost equation, or the
22 availability equation, or anything like that. So can
23 maybe staff kind of address what the options are for
24 really kind of closely monitoring this situation and
25 adjusting as needed?

1 DEPUTY EXECUTIVE OFFICER CHANG: Chair Randolph,
2 thank you for that question. I think, you know, we always
3 when we're implementing regulations are monitoring what's
4 happening in the market, what's happening with the uptake.
5 And in this situation, we would plan to periodically
6 update the Board on how things are running and what is --
7 you know, what's going on in the equip -- with the
8 equipment.

9 I think another thing that could be really
10 helpful is to establish, especially for the commercial
11 landscapers, some sort of working group to help us
12 understand kind of -- it's kind of a two-way thing, right,
13 to help outreach as Ms. Dunwoody talked about, to outreach
14 to the industry, so that they are aware of these -- of the
15 new requirements, so that they are planning for them,
16 maybe even learning from each other, and also for us to
17 get an understanding of what's happening on the ground.

18 And so we have used these kind of workgroup
19 approaches in past regulations when we've implemented
20 them. And I think that that's something that working with
21 the commercial landscapers could be really, really
22 helpful.

23 CHAIR RANDOLPH: Okay. All right. I will ask my
24 fellow Board members who would like to make comments. I'm
25 looking both on Zoom and in the room. Does anyone want to

1 raise their hand?

2 Dr. Sperling.

3 BOARD MEMBER SPERLING: All right. So this is
4 clearly a really important regulation that we're doing.
5 So I have a number of small questions and one big
6 question, so maybe let me just list them. So the first
7 question is, this doesn't affect diesel. Is there any
8 concern that diesel -- all of a sudden we're going to see
9 a lot of diesel leaf blowers? Maybe not leaf blowers, but
10 other like lawn mowers and other equipment?

11 So maybe I'll just give you all my questions.

12 Okay. The second is I didn't see any analysis of
13 carbon monoxide. But if these are uncontrolled emissions
14 and we're going to zero, I heard several references to CO,
15 but in none of the calculations did it seem to include CO.
16 It seems like that would be a significant benefit as well.

17 A suggestion. So this is a suggestion is
18 there's -- I talked a little bit to the staff about this
19 about the incorporating trading provisions into this. And
20 I think that's a great idea, but it doesn't seem like
21 there's been a lot of effort put into figuring out, one,
22 what lessons have we learned. You know, CARB has probably
23 more experience than any agency in the world on trading --
24 you know, emission trading programs. There are ZEV
25 programs, the Greenhouse Gas for Vehicles, that LCFS, the

1 Cap-and-Trade. I mean -- and so if we're going to go down
2 that path, it seems like there might be some lessons
3 learned because stuff can go wrong. We've also seen that.
4 There's enforcement issues, and, you know, depending on
5 the structure of the industry, how concentrated it is.
6 There can be gaming. So I think some follow up in
7 monitoring of that would be a good thing to do.

8 I heard reference to two-cycle engines. Is it
9 true that some of this equipment are using two-cycle? If
10 that's true, gosh, we should have gotten rid of that long
11 ago.

12 I saw an analysis of -- or a reference to
13 premature deaths. And that -- with the ozone -- with NOx
14 and ozone, there's usually very few deaths. My colleague
15 here probably will -- can chime in on that. And, you
16 know, usually, it's from PM where you'll have death. You
17 know, with ozone, you have a lot of respiratory problems
18 and a lot of illness, but less in terms of premature
19 death. So I'm just wondering in terms of calculations and
20 so on what that's all about.

21 But the big thought I have is about the
22 distinction between personal use and commercial use. And
23 there's all kinds of questions that come to my mind. And
24 maybe there's not much here, but it seems like how we
25 structure this, and how we do the analysis, and the

1 incentives, everything should really be playing off of
2 that distinction. It's kind of unusual that we've had a
3 regulation that has these two very distinct end-use
4 markets.

5 And so it goes -- starts all the way with the
6 test cycles that we use to do all the cal -- to do all the
7 calculations of what are the benefits, and what are the
8 costs, and total cost of ownership. I mean, the personal
9 use, you hardly use it. Commercial use, they're using it
10 all the time. And so the implications for the costs, for
11 the benefits, and therefore also for how we structure
12 incentives seems really -- you know, is really tied to
13 that. So that's it.

14 CHAIR RANDOLPH: Okay. Does staff want to
15 address those comments.

16 MONITORING AND LABORATORY DIVISION CHIEF
17 DUNWOODY: Sure. Yes. Thank you for your question, Dr.
18 Sperling. So you're right, these SORE regulations do not
19 affect diesel engines. And in this category for most of
20 the applications, such engines would be too heavy and too
21 expensive, so their emission engines are -- or
22 zero-emission, you know, equipment is a more practical
23 solution for these types of applications.

24 With regard to the trading provisions for
25 credits, this is going to be -- well, there has been a

1 credit system in place for many, many years, and there's a
2 lot of credits that have been banked by manufacturers and
3 they're used to offset their higher emitting engines that
4 emit above the current standards.

5 So with the Zero-Emission Generator Credit
6 Program, which is new, you're right this is a new system.
7 We're going to need to be monitoring it closely to see how
8 the market is evolving in terms of people generating those
9 credits and using them. And there will probably be more
10 cross-company trading in that system. So it does warrant,
11 as you suggested, close monitoring and tracking to see if
12 there's any unex -- unintended consequences of that as we
13 go forward.

14 You asked about two-cycle engines. Yes, many
15 hand-held SORE are two-stroke, chainsaws, a lot of leaf
16 blowers and trimmers, and string trimmers. So the
17 proposal will take care of that with, you know, going to
18 zero emission. That's one of the major, you know, reasons
19 why it's so important to make this transition.

20 And then as far as the end-use market, so when we
21 look at the inventory, we are able to distinguish, because
22 based on surveys we can tell if it's a professional user
23 or a residential user. And you're right, the use cases
24 are very different, so professional users use their
25 equipment all day long. Residents maybe use it once a

1 week.

2 And -- but when it comes to the certification of
3 this equipment, we don't really have a way of
4 distinguishing that this is only for professional use
5 versus residential use. Now, durability may be one way,
6 and historically that's kind of been the claim that by
7 dur -- you know, by -- the longer durability is what will
8 be chosen by the commercial and professional users, but
9 there's no way to guarantee that that would only be used
10 by professional users. We don't -- we don't monitor who
11 buys what equipment. It's all available. So, you know,
12 when it comes to actually distinguishing between the two
13 types of equipment that we don't see a feasible way to do
14 that in the regulation.

15 And then you asked about CO. And I'm going to
16 look to my colleague here. We don't currently have CO in
17 our model, because we're in attainment with CO ambient
18 standards. And so this is really a near-source exposure
19 issue and that's one reason why we haven't addressed it in
20 the proposed standards.

21 We could probably -- you know, it's -- it hasn't
22 been a priority since we have been in attainment with the
23 federal standards on CO.

24 BOARD MEMBER SPERLING: I was just thinking of it
25 in terms of health benefits.

1 MONITORING AND LABORATORY DIVISION CHIEF

2 DUNWOODY: Yes. Yeah, of course.

3 Oh, and then you also asked about health
4 benefits. And really, what we're -- what we're looking at
5 here is, you know, basically most of the health benefits
6 are from secondary PM from NOx, yeah.

7 I think that met all your questions. Was there
8 anything else?

9 BOARD MEMBER SPERLING: Yes, I think that's
10 right.

11 MONITORING AND LABORATORY DIVISION CHIEF

12 DUNWOODY: Okay.

13 BOARD MEMBER SPERLING: Thank you.

14 CHAIR RANDOLPH: You did raise one point about
15 the distinction between residential and commercial as it
16 relates to incentives and I think that's a really
17 important kind of conversation, teeing off of what
18 Assemblymember Berman mentioned about the importance of
19 gearing incentives toward lower income landscapers that
20 are really going to need the assistance to stay in
21 business, so I just kind of wanted to make that point.

22 BOARD MEMBER SPERLING: And that's where the
23 benefits are going to be the greatest as well, so.

24 CHAIR RANDOLPH: Absolutely. Absolutely.

25 MONITORING AND LABORATORY DIVISION CHIEF

1 DUNWOODY: Thank you. If I might just comment on that.
2 The 30 million is explicitly for small businesses and sole
3 proprietors, so it is geared towards professionals. Some
4 of the air districts have run residential exchange
5 programs that frankly, you know, there's a lot of ZEE
6 already in use in residential. That's not where the
7 incentives are most needed.

8 CHAIR RANDOLPH: Okay. Great.

9 All right. Board Member Riordan has her hand up.

10 BOARD MEMBER RIORDAN: Thank you, Madam Chair.
11 First of all, let me express my appreciation for the staff
12 in the staff briefing where they heard me kind of rail
13 about my own personal experiences. But to the point of
14 reaching out and reaching the, many times, single-owner
15 people who are in the landscaping business. And
16 oftentimes, they have not even any staff. Some of them do
17 have a bit of staff. But my concern is that when we
18 administer the incentive program - and hopefully, we'll
19 get more money, because we certainly do need it - that we
20 are very careful that this goes to the right people and
21 for those people who are most in need. And I know that in
22 the resolution, the last, "therefore be it resolved",
23 we've certainly acknowledged this, but we need to be
24 reminded of this. So my hope is when staff is in the
25 implementation period, we keep that ever in front of what

1 we're doing.

2 I would like to express -- I'm a third generation
3 user of leaf blowers and have had great success with the
4 first two. The third one was not successful and that was
5 the most current one that I purchased. So I'm still a
6 little concerned about the technology. And I tend to
7 think perhaps in what I purchased last, it was a battery
8 problem, not necessarily within the mechanism itself and
9 the design. But I'm hopeful that -- and it was the
10 battery that was purchased with the equipment, in other
11 words, the equipment producer had this battery in that
12 package. So we need to be monitoring, I think, the
13 success of whether or not these newer appliances are
14 really working for us.

15 Finally, Madam Chair, I'm still not quite clear
16 about the generators that we've talked about for the RVs.
17 And I wonder if staff could just talk a little bit more
18 about how we're going to monitor that and work with the
19 manufacturers, et cetera. Could they maybe clarify that
20 for me?

21 CHAIR RANDOLPH: Absolutely. Who wants to take
22 that on?

23 BOARD MEMBER RIORDAN: I know Catherine talked
24 about it, but I'm not sure I totally was clear about that.

25 MONITORING AND LABORATORY DIVISION CHIEF

1 DUNWOODY: Well, this is standard practice for, you know,
2 when we propose and you adopt regulations that we are
3 monitoring the development and progress towards meeting
4 those regulations. And we would do the same thing in this
5 situation with a particular focus on the RV applications
6 and the larger generator applications, just like with the
7 pressure washers as we talked about earlier.

8 BOARD MEMBER RIORDAN: Okay. Okay. Thank you.
9 Thank you.

10 CHAIR RANDOLPH: Dr. Pacheco-Werner.

11 BOARD MEMBER PACHECO-WERNER: Yeah. Thank you
12 and thank you to the staff for getting to this point which
13 will undoubtedly help the air pollution and help the
14 workers as well. I am also very concerned about the
15 process by which this came about. And I think it's really
16 important to remember that -- and that when it comes to
17 doing equity and thinking about regulations from an
18 equitable standpoint, you start with the disproportionate
19 impact, and you -- that's the starting point of who will
20 be most negatively impacted. And it really is regrettable
21 that we don't actually have data on those sole
22 proprietors, on those monolingual speakers, on their
23 adoption.

24 And it really is concerning, because if we say
25 that's who is going to be most impacted, but we don't have

1 data, how do we know what is -- what is going to be the
2 effect. I mean, and like someone mentioned, you know, we
3 heard of, you know, less than a handful of people today
4 that even fall into that category to really know about
5 their own experiences.

6 So I would just really, really recommend to staff
7 when we're talking about things that we know are going to
8 have a disproportionate impact, that that's the starting
9 point for the science making, that's the starting point
10 for the pilot programs, and definitely the starting point
11 for the incentive programs.

12 One of the -- I want to follow up on some
13 questions that were -- because I do think that the
14 incentive aspect is concerning. And I don't know about
15 how all of this really splices up. You know, it seems
16 like a big figure, but when it comes to individuals, and
17 commercial, and who's competing for what, it's not very
18 clear how much more money is actually needed. And I would
19 like to take advantage of, you know, the fact that, you
20 know, we have such great resources, both those who helped
21 pass the legislation as well as those on the Board today,
22 you know, to really think about, well, what is a number
23 that we're really talking about here?

24 If we're thinking about work -- I heard workforce
25 development. I heard sole proprietors. I heard

1 commercial needs incentives. You know, how does that --
2 how does that splice down and are we talking about, you
3 know, supplementing with five million, a hundred million
4 on top of the incentive package? What should we really be
5 kind of aiming towards? So if anyone could give a comment
6 towards that goal, that would be helpful.

7 In addition, Edie and Catherine both mentioned
8 around the periodic updates around some of this monitoring
9 of the market. And I just -- I would like to have more
10 clarity both for the people that called in and for myself
11 in terms of what do we mean by periodically? When should
12 we be expecting to hear again about where the market is on
13 all of these things that we're voting on today?

14 And then I -- to the answer to Dr. Sperling's
15 comments on the credits -- the trading system, again, you
16 know, relating to monitoring and the unintended
17 consequences, if you could say a little bit more of, you
18 know, if there are unintended consequences, what would be
19 examples of next steps taken for that to happen?

20 So thank you again, staff, for your work, and I
21 hope to get some clarity one some of these questions.

22 EXECUTIVE OFFICER COREY: Yes. Dr.
23 Pacheco-Werner, I wanted to follow up on those points. In
24 terms of the funding, as indicated, the -- with respect to
25 the \$30 million appropriation, which was captured in the

1 funding plan that the Board considered last month with
2 clear direction to focus those. One, a public process
3 following the Board's action. So we're gearing up for
4 that public process in January to really structure
5 guidance and outreach to really hear from those
6 recipients, those smaller businesses that are focused on
7 landscaping-related works to really inform how to direct
8 those dollars, how to run an efficient program, how to
9 make it more easy to apply and get those dollars out the
10 door.

11 So that was a commitment and a direction to the
12 Board, and something that we will be acting on through a
13 public process actually beginning -- very beginning of
14 2022, as well as the point that was made by several of you
15 in terms of a work group, really which I -- we see as an
16 implementation work group that we'd launch next year as
17 well, in terms of moving forward with the program,
18 monitoring the program throughout implementation leading
19 up to the key implementation dates of 2024, 2028, and also
20 informing the Board and -- on a regular basis, in terms of
21 how ongoing implementation is playing itself out.

22 And to your last point, and you may hear from
23 others that I know have been looking at this, we've
24 certainly heard -- have heard from legislators and others
25 in terms of interest in exploring potentially additional

1 funding. So I know that the appropriation will be
2 significant, that -- the 30 million that was received, and
3 will be direct at the target as you all directed through a
4 process that we play itself out.

5 But certainly it's almost a truism, there's
6 always a need and opportunity for additional funding and I
7 know there will be some ongoing discussions through the
8 budget process on that count as well.

9 BOARD MEMBER PACHECO-WERNER: Thank you.

10 CHAIR RANDOLPH: Can I follow up on Dr.
11 Pacheco-Werner's point about the kind of reporting back
12 process. I think it would be useful if we could perhaps
13 add some language to the resolution specifying that there
14 will be a memo back to the Board updating us on
15 implementation annually.

16 And then given the 2028 deadline for -- you know,
17 for the generators and, you know, that sort of next kind
18 of key step, I think it would be useful to maybe have a
19 more detailed review at some point between now and 2028 on
20 how we're progressing towards that date.

21 EXECUTIVE OFFICER COREY: That's workable, Chair.
22 Annual report to the Board in terms of ongoing
23 implementation, uptake of technology, the range of
24 technologies that are available in really the range of
25 applications that we've talked about here, as well as what

1 I'd characterize as a deep dive implementation status in
2 the 2025, 2026 time frame to be a much deeper dive. So an
3 annual report, status implementation, and then a deeper
4 dive well in advance of that 2028 generator transition
5 date.

6 CHAIR RANDOLPH: Okay. All right. So -- all
7 right. So I'm going to do Board Member De La Torre, Board
8 Member Hurt, then Dr. Balmes.

9 BOARD MEMBER DE LA TORRE: Thank you. Thank you
10 to staff. And this is a lot of moving parts obviously to
11 this one, and I appreciate all the effort that it took.

12 For those that called in and had concerns about
13 the technology-forcing aspect of this. I know for you
14 it's new. You're new to how we do things here. I can
15 tell you that we have seen repeatedly here in my 10 years
16 on this Board, that when we set an ambitious goal, 99
17 percent of the time we get there, so -- and if -- and if
18 there are signs that things are not going the way we
19 expect, we usually, you know, stop, review the situation,
20 as the Chair just mentioned. And then if things are not
21 going the way that we think they're going to, then we make
22 adjustments. So we do that. We're not blind to the
23 realities of what's going out -- going on in the market
24 place. So I just wanted to give you that assurance on the
25 part of the Board that we are very well aware that this is

1 a big leap for many of you, and we're sensitive to that,
2 and we're going to monitor the situation on multiple
3 fronts going forward.

4 On the technology-forcing aspect of this, I am
5 convinced, because we've seen it on the vehicle side, that
6 we're going to get there.

7 (Voice over the line.)

8 BOARD MEMBER DE LA TORRE: That's not me. You
9 can't tell, because I've got a mask on, but that wasn't
10 me.

11 (Laughter.)

12 BOARD MEMBER DE LA TORRE: So we've seen this in
13 that space. In terms of costs, estimates from the private
14 sector, not from us, have -- the analyses has shown or
15 expects that we will be at price parity on vehicle
16 batteries, by 2024. So certainly these other uses should
17 be right in that same ballpark. If we're making that
18 progress on the vehicle side, which is driving battery
19 technology, then for home use, we expect nothing less,
20 that there will be that aspect to this regulation.

21 And I also want to say that when we do a
22 regulation like this, the manufacturers take note and they
23 adjust accordingly. And so I think by having this
24 regulation on them, not on the consumer, not on the
25 business that uses this equipment, that they will step up

1 to meet the challenge and really improve the technology
2 and the cost. So those are things that I expect.

3 So that being said, our incentive dollars are not
4 enough. Thirty million in this fiscal year is not enough.
5 It's not the end-all be-all. We are going to come back to
6 our colleagues in the Legislature for this next fiscal
7 year and insist on a bigger amount now that we have the
8 regulation. The good thing is normally if we do a
9 regulation, we can't incentivize compliance. But in this
10 case, the compliance is the manufacturer, not the user, so
11 we can incent all the way through. And so I think we, at
12 least on my part -- not CARB's. We can't speak for CARB,
13 but on my part, I will be working with our legislative
14 colleagues to make sure that we have additional dollars in
15 the next fiscal year, and the next fiscal year after that,
16 so that we are getting those dollars out there to make
17 this transition easier from a financial perspective, so
18 that's it.

19 Thank you.

20 CHAIR RANDOLPH: Thank you.

21 Board Member Hurt.

22 BOARD MEMBER HURT: Thank you, Chair. I'd like
23 to thank the staff on the presentation, and of course, my
24 neighbor In Santa Clara County, Assemblymember Berman, as
25 well as Assemblymember Gonzalez for authoring this bill.

1 Obviously big picture, economic and health
2 benefits with requiring manufacturers to only sell
3 zero-emission engines is timely and necessary. And this
4 phasing approach, meaning the time in which we required
5 it -- require it is appropriate. It's the vital next step
6 for emission reductions in this sector and transitioning
7 starting now is critical, especially when we read things
8 like the future growth of this market. And this market is
9 valued in the billions. And in the coming years I think
10 about housing, and landscaping, just this area is going to
11 grow, so we need to jump on it sooner than later.

12 When it comes to the more -- maybe the details,
13 if we drill into the details of things, I do have concern
14 about other engines small off-road engines that may not
15 have ZEE options. No one can deny that there are
16 gas-powered leaf blower and residential lawn mower needs,
17 and that there are options in that space, but what about
18 everything in between, meaning like the commercial
19 high-powered applications? And I also think about the
20 rural district applications and the need for more timing.
21 There definitely is concern for me in that space.

22 But again, we do need to move forward. And I
23 agree with Hector's comment that when we push the market,
24 oftentimes the market comes. But this annual monitoring
25 is going to be really important, so that if it doesn't, we

1 can pivot, and we need to pivot quickly.

2 So per the Legislature, you know, the regulation
3 needs to be cost effective and technologically feasible.
4 I do have concerns but, you know, less concern around
5 initial purchase of the equipment, but a bigger concern
6 around performance and battery charging needs. That's
7 where my concerns really lie, especially in rural and
8 remote areas, where there are not places to plug up.
9 We've heard some of that in the public comments. The
10 number of batteries that each piece of equipment will need
11 for performance. And I also sit on a waste management
12 board and I think about the end life of all these
13 batteries. I mean, that's a different subject matter, but
14 it's one that we need to keep at the forefront.

15 When I think of cost for the everyday user, I
16 mean, these are pain points that I'm wondering we thought
17 more deeply about in creating a regulation. And I really
18 support a working group of professional landscapers. This
19 is something I would suggest moving forward, it's going to
20 be the right direction, and the key to make sure with that
21 conversation of monitoring where we are technologically
22 just where the practical real-world applications are.

23 And to Assemblymember Berman's comment about
24 urging us to be surgical, I think we really have to be
25 that way. But again, we do need to move forward. We've

1 acknowledged the science that these are impacting our air
2 pollution -- or it's impacting our environment and our air
3 quality, and so no better time than now.

4 I think the other thing that I just wanted to
5 uplift was the equity piece. And I think Dr.
6 Pacheco-Werner brought it forward really well, which was
7 the idea of starting with that group and talking to them
8 more about what the needs are and not just the
9 manufacturers. I think Mr. Salazar commented around, you
10 know, the actual users are not in the room, and we need to
11 hear those voices.

12 And it struck me it wasn't present in the staff
13 presentation, and I'm sure someone did that outreach, but
14 conferences is not good enough. Local, in cities, air
15 districts - I'm a city council person - working through
16 those spaces, I think we need to do a better job with.

17 And there are a lot of concerns, as I said
18 before, but I'm glad we're moving forward with this. I'd
19 like to hear more about how we're going to do the
20 education piece. And I'm wondering what staff thinks
21 about while we can all agree, you know, leaf blowers and
22 these personal mowers should be done yesterday, what about
23 the larger applications, and giving those specific
24 equipment pieces more time, so that there is feasibility
25 in the technology that can apply across the board and

1 won't be so costly.

2 And I'll end there. Thank you.

3 CHAIR RANDOLPH: Okay. Thank you.

4 Okay. Dr. Balmes, then Board Member Takvorian.

5 BOARD MEMBER BALMES: Thank you, Madam Chair.

6 I'll try to be brief, because I agree with much of what
7 Supervisor Hurt just said, what Mr. De La Torre said, and
8 for that matter also Ms. Riordan, Professor Sperling, and
9 Chair Randolph. So I don't have a whole lot to add. I
10 probably left somebody out there. Sorry.

11 But I specifically wanted staff to address a
12 concern that was raised to me by Outdoor Power Equipment
13 Institute. I'd mentioned it to staff before the meeting,
14 but there was concern about the survey results that we
15 used to determine use and then emission reductions, and
16 actually for that matter how many batteries would be
17 needed, so both the actual survey results and then the
18 models that we generated.

19 I'm not -- I'm totally supportive of where we're
20 going to try to move the market for zero-emission
21 equipment for both the climate and public health reasons
22 that have been articulated by others. But I also would
23 like our regulations to be as evidence-based as possible.
24 And so could I hear from staff their response to what -- I
25 think it was Greg Knott who raised issues with our survey

1 results.

2 MONITORING AND LABORATORY DIVISION CHIEF

3 DUNWOODY: Thank you, Dr. Balmes, for that question.

4 Yes, in the comments we received from OPEI, it
5 appears to us that they may have been making assumptions
6 about users choosing not necessarily the most cost
7 effective battery options for the equipment. So, you
8 know, there's choices in terms of you can buy multiple
9 small cartridge batteries or you can buy different sizes
10 of backpack batteries to use equipment. And we think that
11 operators will make a choice to buy the battery pack that
12 best suits their particular application, which for the
13 case of professional users would likely be the backpack
14 batteries.

15 The other thing -- you know, it's possible, based
16 on looking at the analysis they did, that they may have
17 failed to account for the fact that an electric motor is
18 much more efficient than a gas engine. So you can't just
19 look at, you know, what's the power of a gas engine and
20 then say that you're going to need that many batteries to
21 operate the electric equipment, so that may also be part
22 of the equation here. And we'll continue to look at that
23 and of course respond in our FSOR.

24 BOARD MEMBER BALMES: Thank you. And, you know,
25 I appreciate that staff brought up the occupational health

1 aspects of -- the improvements in occupational health from
2 the ZEE. You know, we often forget about occupational
3 exposures, when we do our environmental regulations, so I
4 was pleased to see that, as somebody who does occupational
5 medicine. And I think it's substantial actually. You
6 know, working with a not very efficient gas engine or a
7 two-stroke engine, the emissions, especially to a
8 potential carcinogen like benzene, you know, it alarms me.
9 I mean, I get freaked out at the gas station when I
10 occasionally have to pump gas, because I know what's in
11 gasoline and this is much heavier exposure than, you know,
12 people filling their cars at a gas station, so I
13 appreciate that.

14 And I also endorse the -- both Dr. Pacheco-Werner
15 and Supervisor Hurt's comments about in the future, I
16 think we need to start with talking with actual users,
17 especially when they're, you know, relatively low income
18 people of color who -- you know, our regulations may have
19 drastic economic impacts on them, as well as improving
20 their health.

21 Thank you.

22 MONITORING AND LABORATORY DIVISION CHIEF

23 DUNWOODY: If I may just respond to that last point, Dr.
24 Balmes. So I just want to clarify that for the survey
25 that we conducted of landscapers, we did specifically

1 reach out to both licensed and unlicensed landscapers.
2 And in the results we received, we did get a 67 percent
3 response rate that were Latino or Hispanic employees. So
4 I do feel that we did contact this community. It is
5 difficult to reach some of the single operators. And we
6 know that that's going to be a challenge as we do our
7 outreach going forward, but we will continue to find
8 creative ways to accommodate that and access them, because
9 it is really critical for implementation.

10 Thank you.

11 BOARD MEMBER BALMES: Yeah. Thank you,
12 Catherine. I think that as an agency we're learning to
13 outreach to community members especially community members
14 of low income and color better than we did in the past.
15 So we're always in a learning curve. So I appreciate that
16 there were survey respondents that -- you know, the folks
17 of concern, but I think we could probably do better in the
18 future, but thank you.

19 CHAIR RANDOLPH: Yeah. And I absolutely think we
20 need to make sure that we are working with community-based
21 organizations and organizers who can really link us up
22 with community members.

23 Okay. Board Member Takvorian and then Vice Chair
24 Berg.

25 BOARD MEMBER TAKVORIAN: Thank you, Chair.

1 Thanks to the staff for the enormous amount of work over
2 the -- over really many years on this rule. So I just
3 wanted to express that. I know it's been a lot of work
4 and I think you've addressed a lot of the key issues that
5 we've had in the past, and, of course, the ones that came
6 up today.

7 I want to just say I agree with a lot of what
8 most of the Board members have said. I do want to
9 emphasize my agreement with Dr. Balmes. I'm very
10 compelled by the health data and exposure of workers and
11 just want to add - I'm not sure if you said this - that I
12 think many of whom are unlikely to have health care
13 coverage as well. So I think that exacerbates and makes
14 more severe the exposure that they have.

15 I also wanted to lift up points that were made by
16 Board Member Riordan, Pacheco-Werner, and Hurt about the
17 way in which the incentives will be distributed. And I
18 want to suggest that CARB really needs to be setting
19 baseline guidance for how the districts will be reaching
20 out as they start to allocate the funds and provide the
21 incentives.

22 I think it's going to be really important to have
23 a standard that CARB will put forward. I know that's not
24 the topic of this rule, but as we're looking to the future
25 and we're instructed and compelled to really reach out to

1 sole owner/operators, and people of color, and
2 disadvantaged communities, I think it's going to be
3 important for CARB to put forward lessons learned, as well
4 as best management practices or best practices for
5 reaching out. And I agree with the Chair that community
6 organizations are going to be key in that.

7 The other thing that I think Dr. Pacheco-Werner
8 and Board Member Hurt said is the equity issue. You know,
9 I feel mixed about a work group, because I don't really
10 think that the sole owner/operator landscapers are going
11 to come forward for a work group. They're busy. They're
12 working. They're not -- they're not going to have the
13 opportunity to be part of that. So I think it's really
14 boots on the ground with going to where they are and
15 really talking with them, and engaging with them in that
16 way. So I look forward to those strategies coming forward
17 and would be excited about talking about that.

18 I want to say that I agree with Chair Randolph to
19 add the annual reporting to the Board, to the resolution,
20 and I look forward to supporting the measure.

21 Thank you.

22 CHAIR RANDOLPH: Thank you.

23 Vice Chair Berg.

24 VICE CHAIR BERG: Thank you very much.

25 I also want to not only thank staff but all of

1 the stakeholders that I know reached out to Board members.
2 We had over 500 comments submitted on this item, as well
3 as the people that testified.

4 And I agree with my colleague, Mr. De La Torre,
5 when you've had the opportunity to be on the Board many,
6 many years and go through these very significant changes,
7 and quite frankly, understanding from a small business
8 owner perspective, it is uncertain at best, and quite
9 frankly scary at worst.

10 And right now, we're all facing additional
11 pressures on top of normal day-to-day regulation, i.e.
12 electrification. And so I just wanted to thank every
13 person that got involved, that did send in comments. We
14 did hear you. We understand that this is a large change.
15 And after we do take the vote, I want to assure you that
16 we will be working on this, because it's all about the
17 implementation and we do need to get it right. That
18 doesn't mean it's not going to be a little messy along the
19 way, but it is critical that -- for electrification,
20 because it's just not small engines. We are going to be
21 doing major, major rulemaking that is going to join quite
22 frankly the rest of the world that is electrifying, and so
23 we have a lot to do.

24 So one of the suggestions, as I've been
25 listening, we do have annual updates by our Executive

1 Officer, by our Environmental and Social Justice Officer.
2 I think electrification is so large and I don't think we
3 can think about it in compartments as if this is the only
4 thing that is going to be electrified. And I think it
5 would be really useful, Mr. Corey, if you could get
6 together with your team and talk about how we could have
7 an annual update on the big picture of electrification and
8 how these various rules are impacting things like supply
9 chains. We've heard about chips, sensors, lithium,
10 shortages, barriers. I agree with Chair Randolph, this
11 isn't going to last forever, but in this next crucial five
12 to eight years, we're hearing various market predictions
13 that we are going to have some challenges in one way or
14 the other.

15 And I'm afraid if we only look rule by rule,
16 we're going to really miss some larger trends, some things
17 that we could make some different decisions on based on
18 this really, as some of my other Board colleagues have
19 said, on-the-ground boots information. So I really would
20 like to encourage that.

21 The other thing as we're looking for these
22 various transformations starting with this one, you know,
23 it's disruptive for the majority. It's really hard even
24 for us to understand the unique user. I think we
25 shouldn't. Right now, we're starting with equipment piece

1 almost number one. Even if it was the 11th percentile,
2 we've still got 90 to go.

3 And I think we shouldn't take our eye off the
4 ball of the majority -- the greater majority that's going
5 to push forward this technology and not get too hung up on
6 these early years on these unique users. And so I'd
7 really encourage staff to again figure out what's going to
8 move the needle the fastest. Let's put our time and
9 effort there. Let's send a very clear signal to all this
10 is coming and figure out these unique users after we have
11 really got the majority on their way.

12 And then last, but not least, in these annual
13 updates, I think it's just crucial as a lead agency, We
14 cannot just be concerned in our own swim lane. And so one
15 of my colleagues in fact brought up -- oh, in fact, Board
16 Member Hurt brought up the end-of-life battery issue. I
17 mean by my really simple math, if we've got 15 million
18 pieces, even if everybody had two batteries, this is a
19 lot. And I know CalRecycle is doing all sorts of things.
20 There's some great research that's going on from
21 colleagues of Professor Sperling at UC Davis in concert
22 with University of Michigan. There's some really good
23 conversations happening. And I think that it is really
24 incumbent on us as leaders to understand and be
25 responsible for the full program.

1 Electrification is absolutely crucial to our
2 goal -- our climate goals, but it's not a panacea of no
3 impact on our planet. And so we need to be paying
4 attention to this. And I think a briefing -- maybe it's
5 every two years. I'm not wanting to bog us down with
6 annual briefings, but truly to understand what's the
7 impact on our grid, where are we, how are we in greening
8 up our grid across the country, because really without
9 greening up the grid, we're really not making the progress
10 we need to be doing. What's happening with the batteries,
11 all these really important social issues I think we should
12 hear about from time to time.

13 So with that, I do want to thank all of the
14 industry members that are going to be absolutely
15 implementing this very difficult changeover, but also
16 acknowledge that I appreciate Edie Chang's offer to do the
17 working group. Maybe on the equity piece, we get our
18 local districts involved where they could do the reach-out
19 to the small companies. And given that we're still doing
20 things by virtual meetings, maybe we could have a small
21 business working group, and maybe our individual districts
22 could really help. They're going to need to reach out to
23 them anyway, so let's take that maybe down to the local
24 districts and maybe they could report back up, Edie,
25 through the larger working group, so that might be a

1 thought.

2 So thank you very much, Chair. And I know we
3 have some other Board members.

4 CHAIR RANDOLPH: All right. Thank you.
5 Supervisor Serna.

6 BOARD MEMBER SERNA: Thank you, Chair.

7 I can't help but start my comments with a bit of
8 a chuckle. I don't know if others can hear, but there's a
9 gas-powered lawn mower running outside as well as a leaf
10 blower as I provide my comments here, so I hope you can
11 hear me over it.

12 So forgive me if this was already addressed by a
13 previous Board member. I had to take a call I think
14 during the first two Board member comments. But a number
15 of speakers brought up the issue of the landscaping -- you
16 know, members of the landscaping industry, especially
17 going out of state to acquire, you know, continuing to
18 acquire gas-powered equipment. And I'm just wondering
19 what is the plan, if there is one, especially as it
20 relates to the role that local air districts might play -
21 and I'm talking years down the line here - when and if we
22 see that come to fruition at some order of magnitude, that
23 there still persists such an interest and demand for
24 gas-powered equipment that some might be willing to go out
25 of state to make those purchases?

1 And I say that -- I bring this up, because here
2 in Sacramento if you've driven north on I-5, as you
3 approach the city you see a large water tank and it says
4 City of Sacramento, City of Trees. You know, we pride
5 ourselves on our arboreal content and character here. And
6 during the fall we certainly have a lot of landscaping
7 activity to be sure with the -- with the leaf drop here.

8 And so I can easily see that if there is in the
9 future going to be some hesitation by users, not
10 necessarily the manufacturers but users, to go electric
11 and to actually be willing to go elsewhere to purchase the
12 equipment that gets used here, it will be folks like
13 Council Member Hurt, myself, other local electeds that
14 will get the calls, I guarantee it, about why do I
15 continue to hear the lawn mower outside, or the leaf
16 blower, why do I continue to see the gas-powered leaf
17 blower pouring pollutants into the air?

18 And I'd like to staff to kind of reply to this
19 generally in terms of enforcement, enforcement light,
20 whether or not we're going to be coordinating with local
21 governments in the years to come as this gets phased in,
22 so that there's a clear understanding of what the response
23 should be if our constituents do encounter the continued
24 use at some -- hopefully some small level of gas-powered
25 equipment. So those are my comments.

1 Thank you.

2 MONITORING AND LABORATORY DIVISION CHIEF

3 DUNWOODY: Thank you, Mr. Serna. We definitely are
4 interested in answering that question very clearly,
5 because our rules do apply to the manufacturers and what's
6 allowed to be sold in California. We don't regulate the
7 use of the equipment itself, at this time, under this
8 regulation. And so we do monitor online sales. Our
9 Enforcement Division is, you know, watching online sales
10 and if they do see that retailers are selling into
11 California, they will take action as well. You know, if
12 there was retailers across state lines selling to
13 California, that potentially could also be a violation.

14 One thing that I do want to point out is there
15 are dozens of communities and homeowners associations
16 across the state who do have various restrictions on the
17 use of SORE equipment. So, you know, with regard to the
18 use of the equipment itself, I would expect there would be
19 pressure at the local level as well. And, you know, we're
20 happy to track that as well and kind of keep tabs on those
21 local requirements.

22 BOARD MEMBER SERNA: I appreciate that. I -- and
23 I know here in Sacramento, in fact, there's an effort
24 under way to do just that. I guess what I'm suggesting
25 though, in addition to everything you just mentioned, is

1 that there be some concerted effort on our part, as a
2 State agency, to reach out to local government, maybe
3 through the League, or maybe through CSAC, and maybe
4 through Special Districts Association for park districts,
5 that we let them know about the timing of the phase-in.
6 Maybe that helps inspire what you just mentioned, even
7 more local jurisdictions taking some preemptive action to
8 really deal with the user part of the issue here.

9 But I just think, you know, based on my own
10 experience with the subject as a county supervisor, I'm
11 going to expect if I'm fortunate enough to still be on the
12 Board in a few years, but I'm certainly going to expect to
13 have to explain all these, as Doc -- as Hector mentioned
14 it earlier, all these moving parts, which do necessarily
15 now include the State and local government. And as I
16 think many know, sometimes even the most well-reasoned
17 explanation doesn't necessarily resonate with a
18 constituent, who is frustrated because they're continuing
19 to see something they thought was banned or somehow
20 outlawed completely on the user-front by the State of
21 California. So just something to keep in mind about
22 perhaps communicating this in a very thoughtful way to
23 local government.

24 CHAIR RANDOLPH: Okay. Thank you, Supervisor
25 Serna.

1 Supervisor Fletcher.

2 BOARD MEMBER FLETCHER: Thank you. Thank you
3 Chair Randolph. The benefit of being one of the last
4 Board members to speak is there's not a whole lot left.
5 Most of the insightful smart things, many of which I had
6 no intention of saying, my colleagues much smarter on
7 this, have been said.

8 I do want to just mention one thing that our --
9 my colleague Diane Takvorian talked about and that is the
10 health impact on these workers. It -- we talk a lot about
11 the impact of air quality, but the reality is some of
12 these are incredibly polluting entities and we are talking
13 about a lot of service workers that are disproportionately
14 impacted from the host of the rest of inequities in our
15 society. And so for those commercial grade ones, those
16 folks that are using them every day, there's certainly
17 benefit from that.

18 In my household, I've heard a lot about this
19 effort and I, of course, fully support this, as it was my
20 brilliant wife who, along with Mr. Berman, brought forward
21 this legislation. And so I support everything about it
22 and I think it's great.

23 In addition to some of the points that have been
24 made is the one thing I think is important for us to
25 monitor as we track through the development of this and

1 the implementation of it is going to be to be very mindful
2 around the folks that are doing trail maintenance and work
3 in a lot of our back-country setting. I spend a fair
4 amount of time out in these environments and you have both
5 professional and volunteer who go out and maintain these
6 trails. And they maintain them for fire purposes, they
7 maintain them for conservation purposes, they maintain
8 them so that folks can properly enjoy them in the right
9 settings. These are often very far removed from power
10 sources. They're often multi-day undertakings.

11 And so just being mindful that we want to
12 continue to make sure that our incredible system of
13 back-country trails are maintained or accessible and are
14 there are going to be a part of this as we move forward to
15 take into those accounts.

16 And then also reiterate many of the comments that
17 have been made and reaffirm my commitment to continue to
18 seek additional funding legislatively. This is -- you
19 know, 30 million is great. It will be a great down
20 payment on what we need to do to truly make this a reality
21 and have it move forward, but excited to support it, and
22 really appreciate all the hard work.

23 And then again, I've got to go home tonight, so I
24 want to commend the brilliance and leadership of both
25 authors, but in particular Assemblymember Gonzalez.

1 Thank you.

2 (Laughter.)

3 CHAIR RANDOLPH: Thank you so much for that and
4 we -- and we appreciate her leadership on this issue.

5 Board Member Kracov.

6 BOARD MEMBER KRACOV: A tough act to follow
7 there, Supervisor Fletcher.

8 Just a couple quick points. I also heard from
9 folks, such as the rural counties, about these issues with
10 the trails and wildfires. So I do think we have to be
11 mindful of the technological feasibility in that sector.
12 Also heard from the folks with the RVs and questions about
13 the RVs and marines. So really appreciate, Chair, your
14 leadership in making sure that we have some degree of
15 assessments of the technological feasibility as we move
16 forward towards the phase-in date for this program.

17 Before we take the vote here, can you just give
18 us clarity, Chair, on whether there's an amendment to the
19 resolution or what we're doing exactly on the
20 technological assessments?

21 CHAIR RANDOLPH: So the proposal is to modify the
22 resolution to provide for an annual review of the status
23 of implementation and then to also have a more thorough
24 technological review in the 2025-2026 time frame to assess
25 the progress towards the 2028 goal for the generators and

1 larger pieces of equipment that we're concerned about.

2 BOARD MEMBER KRACOV: Thank you. Very supportive
3 of that.

4 CHAIR RANDOLPH: Okay. Thank you. All right.
5 I'll just brief note that Assemblymember Garcia was unable
6 to be here for this item. He did want to express his
7 support, reiterate the suggestion that the \$30 million be
8 being made available for incentives be targeted to
9 landscapers within disadvantaged communities, particularly
10 those communities that are in non-attainment, and that we
11 need to continue to prioritize equity, and target those
12 communities that are facing the poorest air quality as we
13 implement those incentives.

14 Okay. All right. It was very handy that Board
15 Member Kracov allowed me to summarize the modification to
16 the resolution that we're making. So the Board has before
17 them Resolution number 21-28 with that proposed
18 modification. Do I have a motion and a second?

19 BOARD MEMBER SERNA: So moved by Serna.

20 BOARD MEMBER TAKVORIAN: Second, Takvorian.

21 BOARD MEMBER SPERLING: Second.

22 CHAIR RANDOLPH: All right. Clerk, could you
23 please call the role.

24 BOARD CLERK ESTABROOK: Dr. Balmes?

25 Mr. De La Torre?

1 Mr. Eisenhower?

2 BOARD MEMBER EISENHUT: Aye.

3 BOARD CLERK ESTABROOK: Supervisor Fletcher?

4 BOARD MEMBER FLETCHER: Fletcher, aye.

5 BOARD CLERK ESTABROOK: Senator Florez?

6 BOARD MEMBER FLOREZ: Aye.

7 BOARD CLERK ESTABROOK: Ms. Hurt?

8 BOARD MEMBER HURT: Aye.

9 BOARD CLERK ESTABROOK: Mr. Kracov?

10 BOARD MEMBER KRACOV: Yes.

11 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

12 Dr. Pacheco-Werner?

13 You're on mute.

14 BOARD MEMBER PACHECO-WERNER: (Thumbs up.)

15 BOARD CLERK ESTABROOK: Okay. I see your nod as

16 a yes.

17 Mrs. Riordan?

18 BOARD MEMBER RIORDAN: Aye.

19 BOARD CLERK ESTABROOK: Supervisor Serna?

20 BOARD MEMBER SERNA: Aye.

21 BOARD CLERK ESTABROOK: Professor Sperling?

22 BOARD MEMBER SPERLING: Aye.

23 BOARD CLERK ESTABROOK: Ms. Takvorian?

24 BOARD MEMBER TAKVORIAN: Aye.

25 BOARD CLERK ESTABROOK: Vice Chair Berg?

1 VICE CHAIR BERG: Aye.

2 BOARD CLERK ESTABROOK: Chair Randolph?

3 CHAIR RANDOLPH: Yes.

4 BOARD CLERK ESTABROOK: Madam Chair, the motion
5 passes.

6 CHAIR RANDOLPH: All right. Thank.

7 Okay. The last item on today's agenda is Item
8 number 21-13-3, the proposed Heavy-Duty Inspection and
9 Maintenance Regulation.

10 If you wish to comment on this item, please click
11 the raise-hand button or dial star nine now. We will call
12 on you when we get to the public comment portion of this
13 item.

14 Heavy-duty vehicles remain one of the most
15 significant sources of air pollution in California and
16 they are the largest source of NOx emissions under CARB's
17 authority. CARB is actively working to develop and
18 implement regulations and funding mechanisms to transform
19 new heavy-duty vehicles to zero-emission technologies.

20 However, in doing so, we must ensure that the
21 remaining conventionally-fueled heavy-duty fleets on
22 California's roads are operating as cleanly as possible.
23 Last August, the Board approved the Heavy-Duty Omnibus
24 amendments to introduce lower NOx emission standards for
25 new heavy-duty vehicle engines, improved engine

1 certification test cycles, and longer warranty periods.
2 These amendments when implemented will minimize tailpipe
3 emissions from new heavy-duty vehicles.

4 The Heavy-Duty Inspection and Maintenance Program
5 will require vehicle owners to periodically demonstrate
6 that their vehicle's emissions control systems are
7 properly functioning in order to operate legally in the
8 State of California. The Heavy-Duty Inspection and
9 Maintenance Program will be especially important for
10 achieving equitable clean air in major populated regions
11 and economically disadvantaged communities near heavy
12 trucking traffic areas.

13 The proposal would also achieve significant early
14 NOx emissions reductions critical for regions with
15 near-term deadlines for State Implementation Plan
16 attainment.

17 Mr. Corey, would you please introduce the item?

18 EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

19 Heavy-duty trucks are an essential part of the
20 goods movement sector in California and nationwide, and
21 are major contributors to statewide mobile source air
22 pollution. Based on recent estimates, heavy-duty trucks
23 emit roughly one half -- one half of statewide on-road
24 mobile source oxides of nitrogen and particulate matter.

25 Given the significance of the heavy-duty truck

1 emission impacts on California's air quality, California
2 has implemented the heavy-duty engine standards that were
3 more stringent than federal standards starting back in the
4 mid-1980s. In the early 1990s, CARB established first
5 heavy-duty smoke inspection programs for heavy-duty
6 trucks. Today's trucks have modern after-treatment that,
7 if working properly, dramatically reduces particulate
8 matter and oxides of nitrogen. In light of these
9 technological developments, these smoke inspection
10 programs are in need of modifications.

11 In 2018, CARB took the first steps towards
12 updating these programs by establishing more stringent
13 smoke opacity limits. Despite significant progress in
14 reducing harmful emissions, more work needs to be done,
15 particularly in the heavy-duty vehicle sector. It's
16 imperative, we continue to reduce heavy-duty vehicle
17 emissions to provide healthy air quality for California's
18 communities to meet our regional State Implementation Plan
19 attainment targets, as well as community protection.

20 Today, staff is asking the Board to complete the
21 process for updating CARB's heavy-duty in-use vehicle
22 inspection programs with the proposal of the Heavy-Duty
23 Inspection and Maintenance Regulation. Staff is focused
24 on a comprehensive approach for updating the heavy-duty
25 truck in-use inspection programs, including establishing

1 new emission test procedures to better identify
2 malmaintenance issues and new enforcement tools to improve
3 overall compliance with proposed regulations.

4 The proposed program can be considered analogous
5 to the existing light-duty Smog Check Program, but for
6 heavy-duty trucks. The proposed regulation will ensure
7 emissions from heavy-duty trucks remain low throughout
8 their operational lives in all regions of California.
9 When implemented, the Heavy-Duty Inspection and
10 Maintenance Program will be especially important for
11 achieving equitable clean air in major populated regions
12 and economically disadvantaged communities near heavy-duty
13 traffic areas.

14 I'll now ask Krista Fregoso of the Mobile Source
15 Control Division to give the staff presentation.

16 Krista.

17 (Thereupon a slide presentation.)

18 MSCD AIR POLLUTION SPECIALIST FREGOSO: Thank
19 you, Mr. Corey. Good afternoon, Chair Randolph and
20 members of the Board. Today, Mr. Nick Kane and I will
21 describe for you the proposed Heavy-Duty Vehicle
22 Inspection and Maintenance Regulation.

23 BOARD CLERK ESTABROOK: Krista, please start
24 over. We're going to ask you to turn on our mic or get a
25 little closer, so that we can hear you through the

1 webcast.

2 MSCD AIR POLLUTION SPECIALIST FREGOSO: Okay.
3 Can everybody hear now?

4 (Laughter.)

5 MSCD AIR POLLUTION SPECIALIST FREGOSO: Thank
6 you, Mr. Corey.

7 Good afternoon, Chair Randolph and members of the
8 Board. Today, Mr. Nick Kane and I will describe for you
9 the proposed Heavy-Duty Vehicle Inspection and Maintenance
10 Regulation referred to as the Heavy-Duty I&M Program.

11 This first-of-its-kind Smog Check Program for big
12 trucks improves upon CARB's existing in-use inspection
13 programs, and is designed to ensure that all heavy-duty
14 vehicles operating on California's roadways have properly
15 functioning emissions control components, and when
16 malfunctions do occur, require pairs -- repairs to be
17 performed in a timely manner.

18 The Heavy-Duty I&M Program would achieve
19 significant near-term reductions in NOx emissions, which
20 are not only a precursor to ozone formation, but also
21 contribute to secondary PM2.5 formation. These reductions
22 are critical for meeting upcoming State Implementation
23 Plan targets and for protecting public health in all of
24 California's communities as quickly as possible. I will
25 now begin our presentation.

1 --o0o--

2 MSCD AIR POLLUTION SPECIALIST FREGOSO: Let's
3 start with the outline for our presentation. First, we'll
4 present background information on California's air quality
5 challenges and the need for heavy-duty vehicle inspection
6 program.

7 Next, we'll provide a quick overview of CARB's
8 comprehensive approach to controlling emissions from
9 on-road heavy-duty vehicles and briefly summarize our
10 existing inspection programs, as well as Senate Bill 210
11 authored by new Board Member, Senator Connie Leyva.

12 We'll then move on to present staff's proposal
13 estimated emission benefits and costs, a summary of 45-day
14 comments and a proposed 15-day change.

15 Finally, we'll wrap up our presentation with
16 staff's recommendation.

17 --o0o--

18 MSCD AIR POLLUTION SPECIALIST FREGOSO: First,
19 I'll start with a reminder of the air quality challenges
20 we face here in California. Despite the significant
21 progress we've made over the past decades, about 70
22 percent of California residents still breathe unhealthful
23 air.

24 Due to California's unique topography, California
25 faces some of the worst air quality in the nation. Our

1 key challenges are especially prevalent in regions located
2 along freight corridors, such as the San Joaquin Valley
3 and South Coast Air Basin. It is therefore critical to
4 reduce health-based fine particulate matter called PM2.5
5 and ozone emission levels to achieve national ambient air
6 quality standards in these regions. As I mentioned
7 earlier, NOx is both an ozone precursor and a contributor
8 to secondary PM2.5 formation. As such, NOx reduction
9 measures are crucial.

10 Furthermore, equity issues persist for
11 disadvantaged communities in California disproportionately
12 impacted by these harmful pollutants. Many of these
13 communities are located in and around major transportation
14 and distribution hubs throughout the state. To ensure
15 equitable health protections and clean air for these
16 community residents, it is critical to reduce emissions
17 from the sources that impact these communities the most.
18 Programs that reduce heavy-duty vehicle emissions are
19 vital to these efforts.

20 While heavy-duty vehicles represent only about
21 three percent of the on-road fleet in California, they are
22 major contributors of criteria pollutants generating about
23 52 percent of NOx and 54 percent of PM emissions from
24 on-road mobile sources within the state and they are one
25 of the largest categories under CARB's authority.

1 Additionally, CARB estimates about 70 percent of
2 the cancer risk that the average Californian faces from
3 breathing toxic air pollutants stems from diesel exhaust
4 particles.

5 --o0o--

6 MSCD AIR POLLUTION SPECIALIST FREGOSO: Along
7 with the Heavy-Duty Omnibus Regulation the Board approved
8 last year, the proposed Heavy-Duty I&M Program is one of
9 the most significant NOx reduction measures to come before
10 this Board in recent history. In fact, it is the largest
11 NOx reduction measure the Board has considered since the
12 Truck and Bus Regulation in 2008 and it is critical for
13 SIP attainment. Near-term reductions are especially
14 critical for the San Joaquin Valley.

15 San Joaquin Valley's 2024 PM2.5 SIP commitment
16 includes NOx reductions of 6.8 tons per day from the
17 Heavy-Duty I&M Program.

18 Additionally, the South Coast Region is projected
19 to need reductions in NOx emissions by as much as 60
20 percent from current levels to meet the 75 parts per
21 billion 8-hour ozone standard in 2031. The emission
22 reductions as a result of today's proposal would put
23 California on the path to do just that.

24 --o0o--

25 MSCD AIR POLLUTION SPECIALIST FREGOSO: CARB's

1 multiple programs for on-road heavy-duty vehicles are
2 designed to work together to limit vehicle emissions from
3 the engine certification process through on-road
4 operations. This comprehensive effort includes programs
5 to advance the newest zero-emission technologies with
6 measures to ensure that internal combustion engines
7 operate as cleanly as possible, thus providing a path
8 forward to secure healthful air and reduce climate change
9 impacts for future generations.

10 Our work includes demonstration and regulatory
11 programs to foster innovative advanced technology
12 developments in the heavy-duty sector and financial
13 incentives to assist in the early years of technology
14 development and market introduction.

15 Fundamental to our overarching mobile source
16 efforts are programs to drive down emissions from the
17 internal combustion vehicle sector. These programs
18 include rigorous certification requirements for engines
19 before they are installed in vehicles and certification
20 for on-board diagnostic systems. Examples of these
21 program include the Heavy-Duty Omnibus Regulation, and
22 amendments to the heavy-duty on-board diagnostic
23 requirements that the Board approved this summer.

24 Other requirements, such as warranty provisions
25 and in-use compliance hold engine manufacturers

1 accountable for the design and durability of their
2 emission control components.

3 Next, in-use rules, such as the statewide Truck
4 and Bus Regulation require vehicle owners to upgrade their
5 existing vehicles to cleaner technologies. The trucking
6 sector has invested significant resources to comply with
7 the Truck and Bus Regulation, and as a result has achieved
8 a 98 percent compliance rate.

9 Finally, we have existing vehicle inspection
10 programs in the form of the road side Heavy-Duty Vehicle
11 Inspection Program, and the fleet Periodic Smoke
12 Inspection Program that require vehicles on the road to
13 meet defined smoke opacity limits. Today, we come to you
14 with a proposal for the Heavy-Duty Inspection and
15 Maintenance Program to vastly improve these existing
16 programs.

17 --o0o--

18 MSCD AIR POLLUTION SPECIALIST FREGOSO: I will
19 now move on to a brief overview of CARB's existing
20 Heavy-Duty Vehicle Inspection Programs and Senate Bill
21 210, which directs CARB to revamp these programs through
22 the new Heavy-Duty I&M Program.

23 --o0o--

24 MSCD AIR POLLUTION SPECIALIST FREGOSO: As I've
25 mentioned, the current inspection programs are the

1 road-side Heavy-Duty Vehicle Inspection Program, called
2 HDVIP, and its companion program, the Periodic Smoke
3 Inspection Program, called PSIP. The HDVIP uses field
4 inspections by CARB staff to check for excessive smoke
5 opacity emissions, tampering, and for emission control
6 labels. HDVIP captures about 20,000 to 30,000 of the
7 approximately one million heavy-duty vehicles traveling
8 California's roadways each year.

9 PSIP requires California fleet owners of two or
10 more heavy-duty vehicles to annually test their vehicles
11 for excessive smoke and maintain test records in case of
12 an audit request.

13 Although these programs have been effective in
14 reducing smoke opacity emissions from the heavy-duty
15 vehicle sector, they were designed in the 1990s well
16 before the introduction of exhaust after-treatment
17 technology, such as selective catalytic reduction systems
18 and diesel particulate filters, called DPFs, and prior to
19 the incorporation of on-board diagnostic systems in the
20 heavy-duty vehicle sector.

21 As diesel engine and exhaust emission control
22 technology has advanced over the past 15 years, it became
23 increasingly apparent that our heavy-duty inspection
24 programs must do so as well. The first step towards
25 modernizing these programs occurred with the Board's

1 approval in 2018 to lower smoke opacity limits, including
2 a five percent opacity threshold for engines equipped with
3 diesel particulate filters.

4 Even with the more stringent opacity limits, the
5 existing inspection programs are inadequate for monitoring
6 modern diesel engines.

7 --o0o--

8 MSCD AIR POLLUTION SPECIALIST FREGOSO: The next
9 step in modernizing these inspection programs comes in
10 front of the Board today through staff's proposal.

11 California needs a more comprehensive inspection and
12 maintenance program for heavy-duty vehicles to adequately
13 monitor and address NOx emissions issues, which can't be
14 accomplished in our existing inspection programs that
15 target only smoke opacity.

16 Recognizing this need, Senator Connie Leyva
17 authored Senate Bill 210 in 2019, which the Legislature
18 passed and Governor Newsom signed into law the same year.
19 Senate Bill 210 provides the foundation for staff's
20 proposal we are discussing today and we'd like to take
21 this opportunity to extend a thank you to Senator Leyva.

22 Senate Bill 210 directs CARB to develop --

23 (Laughter.)

24 MSCD AIR POLLUTION SPECIALIST FREGOSO: Senate
25 Bill 210 directs CARB to develop and implement a new

1 comprehensive program to ensure all heavy-duty vehicles
2 traveling in California have properly functioning emission
3 control systems. It authorizes CARB to establish test
4 procedures that help to identify vehicles with
5 malfunctioning emissions controls and high emissions and
6 ensure that these vehicles are repaired and brought back
7 into compliance.

8 Later in this presentation, staff will highlight
9 the proposed provision for enhanced periodic testing and
10 deployment of remote emissions monitoring devices to
11 ensure that all vehicles operating in California are
12 subject to compliance verification.

13 Senate Bill 210 also provides the tools needed to
14 effectively enforce the compliance verification
15 requirements by linking program compliance to DMV
16 registration for California vehicles analogous to the
17 BAR's light-duty Smog Check Program by requiring vehicle
18 owners to maintain a valid compliance certificate and by
19 authorizing CHP to also enforce the program.

20 And finally, SB 210 provides a funding mechanism
21 to support program administration and implementation. If
22 approved for adoption, the Heavy-Duty Inspection and
23 Maintenance Program would replace CARB's existing
24 inspection programs, HDVIP and PSIP, when fully
25 implemented.

1 --o0o--

2 MSCD AIR POLLUTION SPECIALIST FREGOSO: With the
3 background on California's air quality challenges and the
4 need for a revamped inspection program as context, I,
5 along with Nick Kane, will now discuss the main elements
6 of the Heavy-Duty Inspection and Maintenance proposal.

7 --o0o--

8 MSCD AIR POLLUTION SPECIALIST FREGOSO: In
9 concise terms, the purpose of the Heavy-Duty I&M Program
10 is to revamp the existing inspection programs and ensure
11 emissions control systems are functioning properly, as
12 I've discussed, ensure the quick repair of malfunctioning
13 emissions-related control parts, and ensure high
14 compliance rates and a level playing field for all
15 trucking businesses operating in California.

16 --o0o--

17 MSCD AIR POLLUTION SPECIALIST FREGOSO: This
18 graphic shows the key elements of the Heavy-Duty I&M
19 Program. Working together, these program elements will
20 ensure we implement an enforceable program that meets the
21 purpose I just described. These elements can be divided
22 into two categories.

23 First, we have programs elements that enhance our
24 abilities beyond CARB's current inspection program to
25 identify vehicles with malfunctioning emissions-related

1 components and require they be repaired. These elements
2 include: expanded program applicability for all vehicles
3 operating in California, including out-of-state vehicles
4 and single owner-operator vehicles; revamped compliance
5 tests; requirements for periodic testing; and deployment
6 of roadside remote emissions monitoring devices, called
7 REMD.

8 Next, we have improved enforcement tools to
9 ensure high compliance rates, so the program can achieve
10 maximum emission reductions to meet regional air quality
11 attainment targets and provide community-focused emission
12 and health benefits. These include: compliance
13 certificates and linkage to DMV registration; tester
14 training and a referee network; freight contractor and
15 freight facility compliance verification requirements; and
16 improved coordination with other State agencies.

17 --o0o--

18 MSCD AIR POLLUTION SPECIALIST FREGOSO: The
19 proposed regulation would apply to nearly every diesel and
20 alternative fuel heavy-duty vehicle, including hybrids,
21 operating in California that has a gross vehicle weight
22 rating over 14,000 pounds. This includes single
23 owner-operator fleets, which make up about 27 percent of
24 the California registered fleets and vehicles registered
25 outside of California that travel on our roadways.

1 Senate Bill 210 exempted only a few categories of
2 vehicles from the inspection program, for example,
3 zero-emission vehicles and emergency vehicles.

4 Gasoline heavy-duty vehicles over 14,000 pounds
5 are not included in this proposal, because those that are
6 registered in California are already covered in BAR's Smog
7 Check Program. The population of out-of-state vehicles
8 over 14,000 pounds operating in California is almost
9 exclusively diesel powered, therefore negating the need to
10 establish separate requirements for gasoline heavy-duty
11 vehicles registered out of state.

12 --o0o--

13 MSCD AIR POLLUTION SPECIALIST FREGOSO: The
14 foundation of our proposal is revamped compliance testing
15 to assist in identifying broken emissions related control
16 components in need of repair. For vehicles equipped with
17 on-board diagnostics, referred to as OBD, we are proposing
18 to use data obtained by performing a data scan of a
19 vehicle's engine. OBD is used to identify malfunctions in
20 all emissions-related components that can lead to
21 increases in emissions of PM and NOx.

22 The use of OBD is especially important as it will
23 help flag issues with NOx emissions control components,
24 which the existing inspection programs are unable to do.
25 I'll talk more about OBD and OBD compliance test methods

1 in the next few slides.

2 For vehicles not equipped with OBD, we are
3 proposing to use the SAE J1667 smoke opacity test protocol
4 already used in the existing PSIP and HDVIP. We are also
5 proposing a new standardized vehicle emissions control
6 equipment inspection to assist in identifying
7 emissions-related issues beyond just exhaust smoke.

8 The SAE J1667 opacity test protocol is effective
9 in identifying DPF-related issues, but an additional
10 inspection component is needed to catch other emissions
11 issues that would be missed by exclusively using smoke
12 opacity testing.

13 --o0o--

14 MSCD AIR POLLUTION SPECIALIST FREGOSO: You've
15 heard me mention OBD several times already, so I want to
16 take a step back and briefly talk about what OBD is and
17 what it does.

18 First, OBD is not a new technology. CARB first
19 established OBD for light- and medium-duty vehicles
20 starting in 1994 and phased in OBD requirements for
21 heavy-duty vehicles starting in 2010. CARB's Smog Check
22 Program has been using OBD as a proven and effective
23 inspection method for decades. OBD itself is a system
24 that monitors the performance of all emissions-related
25 components and pinpoints malfunctions. When the OBD

1 system detects a problem within an emissions component, it
2 notifies the vehicle driver by illuminating the
3 malfunction indicator light, called the MIL, on the
4 vehicle's dashboard instrument panel. The picture on this
5 slide shows the heavy-duty vehicle MIL symbol, which is
6 the amber outline of an engine.

7 Recent CARB field studies demonstrate that about
8 14 percent of heavy-duty vehicles are traveling
9 California's roadways with an illuminated MIL. CARB's OBD
10 regulations require that OBD systems perform all of its
11 functions for the entire operating life of the vehicle,
12 which is why it is a primary tool in inspection and
13 maintenance programs worldwide.

14 --oOo--

15 MSCD AIR POLLUTION SPECIALIST FREGOSO: Now, I'll
16 talk about OBD compliance testing in the Heavy-Duty
17 Inspection and Maintenance Program.

18 While heavy-duty OBD started in 2010, it wasn't
19 fully implemented with standardized diagnostic codes for
20 diesel engines until the 2013 model year. We are
21 therefore proposing that OBD compliance testing would be
22 used for diesel vehicles with 2013 and newer model year
23 engines, including vehicles with diesel hybrid systems.

24 For alternative fuel heavy-duty vehicles,
25 including those with hybrid systems, OBD compliance

1 testing would start with the 2018 model year. By 2023, we
2 estimate that about 80 percent of the vehicles operating
3 in California will be equipped with OBD.

4 Our proposal includes OBD compliance test
5 options, so vehicle and fleet owners can choose the option
6 that works best for their vehicle operations and business
7 needs. For example, OBD test results could be submitted
8 using telematics. Telematic systems work by connecting a
9 device to the vehicle to collect OBD data and transmit it
10 over the Internet to a database for interpretation and
11 evaluation. Telematics would allow for an automated
12 inspection of the engine's OBD data without human
13 intervention or vehicle downtime to perform the compliance
14 tests.

15 Telematics technology itself is not new and is
16 already used by heavy-duty fleets for real-time logistics
17 management and preventive maintenance notification through
18 fleet subscriptions to telematics service providers. The
19 Bureau of Automotive Repair has already been working with
20 telematics service providers for more than a decade to
21 implement a robust telematics OBD data submission method
22 used by government fleets -- government vehicles
23 demonstrate Smog Check compliance.

24 Through telematics service providers, CARB
25 certified OBD data collection devices can be installed on

1 vehicles. In these cases, the OBD devices can be set it
2 and forget it systems with data collected and periodically
3 transmitted to CARB without any vehicle downtime to
4 perform the test.

5 Alternatively, vehicle owners can use hand-held
6 data collection devices to plug into a vehicle's OBD port
7 under the driver's side dashboard. While not an automated
8 set it and forget it test method, this testing option
9 would take less than five minutes to complete.

10 --o0o--

11 MSCD AIR POLLUTION SPECIALIST FREGOSO: Increased
12 compliance testing frequency augments the foundation of
13 our proposal. For most vehicles, periodic compliance
14 testing would be required two times per year at six-month
15 intervals instead of annually as required under PSIP.
16 This ensures emissions-related malfunctions are detected
17 and repaired more quickly.

18 Throughout out the rulemaking process, staff had
19 numerous discussions with stakeholders regarding feasible
20 testing frequencies that make the most sense for program
21 implementation. After evaluating various testing
22 frequencies, twice-per-year testing was found to be the
23 most cost effective while meeting the emissions reductions
24 needs of the program.

25 Twice-per-year testing allows malfunctioning

1 emission control components to be identified and repaired
2 in a timely manner and enables effective implementation of
3 a comprehensive and complex program from the very start.
4 As compliance test data is collected, staff plans to
5 evaluate the incoming data and assess whether any
6 modifications to the periodic testing requirements are
7 needed as we move forward in implementation.

8 We've also built in flexibility for California
9 registered motorhomes and for agricultural vehicles to
10 test annually rather than two times per year. Vehicle
11 owners will be responsible for ensuring compliance test
12 data is submitted by specified compliance deadlines. For
13 example, owners of California registered vehicles, subject
14 to twice-per-year testing, will be required to submit
15 passing testing results by a vehicle's DMV registration
16 expiration date -- expiration date. The next passing test
17 results would be due six months later.

18 Testing deadlines for non-California
19 DMV-registered vehicles would be based on the last digit
20 of the vehicle's -- vehicle identification number.

21 Finally, passing test results could be submitted
22 up to 90 days ahead of the compliance deadline to provide
23 flexibility for the vehicle owner. Passing test results
24 submitted within the 90-day submission window would enable
25 CARB to issue a compliance certificate to cover the next

1 six-month operating period.

2 And with that, I will now hand the presentation
3 over to Nick Kane.

4 --o0o--

5 ED AIR POLLUTION SPECIALIST KANE: Thank you,
6 Krista. One of the main elements that we'll rely upon
7 from the onset of this program is the deployment of
8 roadside emissions monitoring devices, also known as REMD.
9 We will deploy a network of these devices to screen
10 vehicles operating on California roadways, where they will
11 record an emissions measurement of each vehicle passing
12 through and can identify any high emitters of NOx and PM.

13 Because these units use Automatic License Plate
14 Recognition, or ALPR, and we can cross-reference with the
15 DMV system and other databases, CARB can identify vehicle
16 model years and determine whether vehicles passing through
17 are newer OBD-equipped vehicles or older vehicles without
18 OBD technology.

19 CARB will then flag vehicles as high emitters,
20 when they're detected exceeding corresponding NOx and PM
21 OBD trigger thresholds or when they exceed corresponding
22 smoke opacity limits. If a vehicle is screened as a high
23 emitter, the owner will receive a notice requiring
24 follow-up compliance testing to make sure that there are
25 no malmaintenance issues. If there are, they'll be given

1 time to correct those issues and provide proof of repair.
2 If they fail to respond to repairs, CARB may issue a
3 citation and penalties.

4 These devices can be deployed on mobile
5 platforms, as you see in the top photo, which can be
6 placed anywhere they're needed throughout the state, and
7 they may be used alongside traditional inspections to
8 streamline enforcement efforts.

9 Additionally, platforms can be installed in
10 semi-permanent locations on existing infrastructure as
11 shown in the bottom photo. These devices can operate on
12 their own, gathering data and sending it back to CARB for
13 follow up. This network will be live and deployed
14 throughout the state screening for high emitters starting
15 January 1 of 2023. Initial focus will be in the San
16 Joaquin Valley and South Coast regions in an effort to
17 target the most impacted regions of California and attain
18 reductions for near-term SIP deadlines.

19 This REMD network provides several solutions to
20 enforcement challenges that we've historically faced.
21 Enforcing vehicles that are registered out of state can be
22 an issue, because CARB can only determine that these
23 vehicles are subject to the regulation when they're seen
24 physically operating in California. REMD includes the use
25 of automatic license plate readers, which when used as a

1 statewide network, provide insight into the operation of
2 out-of-state vehicles in California. This allows CARB to
3 follow up with the owners of these vehicles and ensure
4 that they're properly reported pursuant to this program's
5 requirements.

6 Additionally, while CARB is aware that vehicles
7 are operating out of compliance, it can be challenging to
8 know exactly where non-compliance is most prevalent. A
9 network of devices throughout the State provides insight
10 into the locations where high emitters most often operate,
11 allowing CARB to target its enforcement efforts where
12 they're needed most.

13 --o0o--

14 ED AIR POLLUTION SPECIALIST KANE: When we
15 develop a regulation with enforcement in mind, what we're
16 doing is making sure that the requirements we outline in
17 the regulation are achievable in the real world. We want
18 to provide stakeholders with clarity about how to comply
19 and provide ourselves with the tools necessary to make
20 sure that happens.

21 In order to do this, we've introduced program
22 elements that are designed to improve enforceability and
23 compliance. This program provides certificates of
24 compliance for vehicles that adhere to testing and
25 reporting requirements. We've included elements that

1 ensure the reported test information to obtain a
2 certificate is accurate and that testers are held
3 accountable. We've established requirements for entities
4 in the supply chain to check these compliance certificates
5 before doing business, and we're also closely
6 collaborating with other State agencies to perform
7 inspections.

8 In addition to all of this, we're focusing our
9 efforts that we do for enforcement on ensuring that
10 disadvantaged communities receive the emission benefits
11 that they need.

12 --o0o--

13 ED AIR POLLUTION SPECIALIST KANE: A critical
14 enforcement tool in this program is the requirement that
15 all vehicles operating in California have a valid
16 compliance certificate. To get this certificate, vehicle
17 owners will need to meet the periodic testing requirements
18 discussed earlier. Furthermore, owners would only be
19 issued a compliance certificate if there are no
20 outstanding enforcement actions on the vehicle in
21 question. A compliance fee of \$30 per year supporting
22 program administration costs would need to be paid by the
23 owner prior to obtaining a certificate.

24 Failure to obtain a compliance certificate would
25 result in registration holds for California-based

1 vehicles. Regardless of whether vehicles are registered
2 in California, operating without a certificate will result
3 in enforcement action.

4 In addition to CARB enforcement efforts, which
5 include the REMD screening and field inspection, CHP
6 officers will also check for these compliance certificates
7 when conducting their own inspections, which will aid in
8 CARB's ability to enforce the regulatory requirements
9 throughout California, including for out-of-state
10 vehicles.

11 --o0o--

12 ED AIR POLLUTION SPECIALIST KANE: From a program
13 perspective, it's critical to ensure the accuracy of
14 submitted test results and other program data and to hold
15 those reporting that data accountable. To ensure that
16 vehicles are tested properly, CARB is establishing a
17 thorough training program for testers. Training is
18 necessary to educate testers on proper testing procedures
19 and regulatory requirements, so that CARB can rely on the
20 integrity and accuracy of their testing results.

21 Anybody who wishes to be a tester would be
22 eligible whether they're a truck owner or independent
23 business. However, to obtain CARB approval to operate as
24 a tester, an individual would have to undergo this
25 training and pass a CARB administered exam, which will be

1 offered online. This represents a major difference
2 between this program and the light-duty Smog Check
3 Program, because it allows for convenient compliance
4 testing methods that don't require vehicle owners to
5 report to brick and mortar facilities. Vehicle owners can
6 train to become testers themselves or take advantage of
7 telematic options.

8 To improve accountability when it comes to
9 reporting, CARB is establishing a network of referees who
10 will serve as a third party for inspection and compliance
11 verification. Not only will referees verify the accuracy
12 of reported information through inspections, but CARB will
13 also rely upon them to provide solutions to the complex
14 compliance scenarios that can't be accounted for at the
15 start of this program and assist with improving HD I&M
16 Program moving forward.

17 Finally, to assist fleets when parts are
18 unavailable for emission-related repairs due to events
19 beyond their control, like global manufacturing and
20 distribution issues, staff is proposing a one-time per
21 vehicle parts unavailability compliance extension.

22 Upon CARB approval of the extension, a vehicle
23 owner would be issued a provisional compliance certificate
24 to allow more time for necessary repairs and continued
25 operation. The application process ensures only

1 verifiable and valid applications are approved for
2 extenuating circumstances.

3 --o0o--

4 ED AIR POLLUTION SPECIALIST KANE: As mentioned
5 before, another element of enforcement that we're
6 implementing involves entities throughout the supply
7 chain, who have a responsibility to make sure that the
8 vehicles they work with are compliant with the
9 requirements of HD I&M. Freight contractor and brokers
10 need to obtain compliance documentation for any companies
11 that they're working with and retain records of the
12 contracts that result in the operation of vehicles in
13 California.

14 They'll keep these records and provide them to
15 CARB upon request. It's important to note that these
16 requirements are consistent with existing requirements
17 already in place through other CARB regulations. Brokers
18 and motor carriers who already comply with the record
19 keeping requirements in the Truck and Bus Regulation for
20 instance are adhering to similar requirements.

21 For applicable freight facilities, prior to
22 allowing a vehicle entry into their facility, they're to
23 check to make sure that it has a valid compliance
24 certificate. If the vehicle does not have a certificate,
25 the facility can either turn the vehicle away or retain

1 records of that non-compliant vehicle and provide them to
2 CARB upon request.

3 CARB is aware that these facilities have existing
4 processes in place to perform similar compliance
5 verification under our Drayage Rule and we're committed to
6 making this process integrate as seamlessly as possible to
7 reduce that logistical burden.

8 By making entities in the supply chain
9 responsible for verifying compliance, CARB is creating an
10 additional incentive for vehicle owners to maintain valid
11 compliance certificates for their vehicles. As a result,
12 these requirements will further incentivize regular
13 testing and maintenance.

14 When businesses are encouraged to contract with
15 compliant vehicles and fleets, this also helps to level
16 the playing field for those who chose to operate in
17 compliance. Additionally, encouraging the use of
18 compliant vehicles in these facilities will improve local
19 air quality in the surrounding areas, which are often
20 communities where those improvements are needed most.

21 --o0o--

22 ED AIR POLLUTION SPECIALIST KANE: We're also
23 making sure that we work with other State agencies where
24 possible to improve compliance. Senate Bill 210 clarifies
25 the enforcement authority extended to CHP to ensure

1 compliance with this program. CHP will be making sure
2 that vehicles operating in California have compliance
3 certificates, and they may also perform inspections under
4 this program.

5 In addition, DMV registration is also tied to
6 compliance, so for vehicles that are registered in
7 California, failure to maintain a compliance certificate
8 will prevent the vehicle from updating registration with
9 the DMV. And of course, because CARB will be conducting
10 inspections throughout the state, CARB has been working
11 with the various agencies in charge of weigh stations,
12 scales and other inspection locations. These include the
13 California Department of Food and Agriculture, Caltrans,
14 and the CHP.

15 --o0o--

16 ED AIR POLLUTION SPECIALIST KANE: What we want
17 to do now is connect all these programs elements that
18 we've been discussing to a truck owner's perspective, in
19 order to clarify the responsibilities and interactions
20 that they'll have with this program. Trucks operating on
21 California roadways may occasionally pass through the
22 network of REMD units throughout California. If their
23 vehicle is detected as a high emitter the owner will need
24 to provide CARB with follow-up tests demonstrating
25 compliance. REMD will not result in a citation, except in

1 the case that this follow-up test is not performed.

2 Truck owners will need to maintain a compliance
3 certificate for their vehicles. This certificate
4 demonstrates that the vehicle has met all the necessary
5 program requirements and may be used to verify compliance
6 during inspections by CARB or CHP, or requested by
7 entities in the supply chain like freight contractors and
8 facilities.

9 These freight contractors will check for
10 compliance certificates prior to entering into any
11 contract with an applicable vehicle. Port and railyard
12 facilities will verify compliance prior to allowing
13 vehicles entry to their property.

14 And lastly, truck owners will also need to
15 perform periodic testing on their vehicles in order to
16 maintain their compliance status and demonstrate to CARB
17 that their vehicles are in working order. These tests
18 will need to be conducted by individuals who have
19 completed the CARB-approved training.

20 --o0o--

21 ED AIR POLLUTION SPECIALIST KANE: We've designed
22 this program to be rolled out in three phases to provide a
23 smooth ramp up to full program implementation. Using the
24 phase-in approach allows us to hit the ground running in
25 2023 with deployment of REMD to screen for potential

1 high-emitting vehicles for follow-up testing and repair.

2 This initial phase will assist us in attaining
3 critical near-term emission reductions for the San Joaquin
4 Valley to meet its 2024 PM2.5 attainment deadline. At the
5 same time, CARB will be working as quickly as possible to
6 build the internal infrastructure needed to support the
7 program. As that infrastructure has developed and tested,
8 CARB will roll out the additional elements.

9 The second phase of program implementation will
10 focus on compliance linkage to DMV registration. CHP will
11 begin checks for compliance certificates, and freight
12 contractor and freight facilities will also begin
13 compliance verifications. The second phase will not be
14 rolled out until the necessary infrastructure is fully
15 developed and industry has been notified. The
16 implementation of these requirements is projected for no
17 earlier than July 2023 with the understanding that it's
18 contingent on the completion of critical IT infrastructure
19 that's being built today.

20 Finally, the periodic vehicle testing
21 requirements will kick in once the infrastructure needed
22 to implement the final phase of the program is completed,
23 with expectation that this program phase-in would be
24 implemented no earlier than beginning 2024. Again, CARB
25 staff is moving as quickly as possible to roll out these

1 phases. However, staff is committed to ensuring the
2 developed systems are robust and fully tested before
3 implementing these requirements.

4 And with that, I will turn the presentation back
5 over to Krista.

6 --o0o--

7 MSCD AIR POLLUTION SPECIALIST FREGOSO: Thank
8 you, Nick. I'm now going to discuss how the proposal will
9 benefit disadvantaged communities, the estimated emission
10 reductions, health benefits, and projected costs.

11 --o0o--

12 MSCD AIR POLLUTION SPECIALIST FREGOSO: Our
13 proposal advances CARB's goal to address disproportionate
14 pollution impacts on associated health conditions
15 affecting disadvantaged communities across the state.

16 By ensuring that the vehicles traveling near and
17 through these communities have properly functioning
18 emissions controls, the Heavy-Duty I&M Program will reduce
19 emissions in areas with the most need for reductions.

20 Nick already mentioned that the requirements for
21 ports and railyards to verify compliance for vehicles that
22 operate in their properties is one way to benefit nearby
23 communities.

24 Equally important is our plan to deploy remote --
25 mobile remote emissions monitoring devices in communities

1 where emission reductions are needed most to identify
2 potential high emitters for follow-up testing and repairs
3 as needed.

4 Staff will also be seeking opportunities to
5 engage with community leaders to identify and establish
6 locations where low-income vehicle owners and owners of
7 vehicles operating in disadvantaged communities could
8 access CARB-provided free compliance testing equipment.

9 Offering testing support to support truck owners
10 that need it most and that operate in and around
11 communities disproportionately impacted by trucking
12 emissions can help improve compliance rates. Staff plans
13 to work with community leaders to identify ways to provide
14 testing support to best serve community needs.

15 --o0o--

16 MSCD AIR POLLUTION SPECIALIST FREGOSO: This
17 slide shows the estimated statewide tons per day NOx and
18 PM emission reductions from our proposal starting in 2023,
19 and for key SIP attainment deadlines in 2031 and 2037.

20 In its first year of implementation in 2023, the
21 program is projected to achieve 6.4 tons per day of NOx
22 reductions. By 2031, that increases to 71.6 tons per day.

23 To put the magnitude of the reductions in
24 perspective, NOx reductions from the Heavy-Duty I&M
25 Program would reduce baseline emission levels from

1 heavy-duty vehicles over 14,000 pounds by 50 percent in
2 2031, increasing to a 56 percent -- 56 percent reduction
3 in baseline levels by 2037.

4 When staff presented the Heavy-Duty Omnibus
5 Regulation to you in August of 2020, staff was able to
6 claim it as the largest NOx reduction measure the Board
7 has considered since adopting the Truck and Bus Regulation
8 in 2008. Impress -- as impressive as that it is, today,
9 we are able to say the proposed Heavy-Duty I&M Regulation
10 is now the largest NOx reduction measure since the Truck
11 and Bus Regulation.

12 --o0o--

13 MSCD AIR POLLUTION SPECIALIST FREGOSO: The
14 emission reductions I just presented translate into
15 significant public health benefits for the people of
16 California with the majority of the benefits coming in
17 disadvantaged communities in the San Joaquin Valley, South
18 Coast, and Bay Area regions. As you can see on this
19 table, the proposal would prevent about 7,500 premature
20 deaths and over 6,000 combined hospital visits between
21 2023 and 2050. When this proposal's health benefits are
22 monetized, it translates into health benefits valued at
23 over \$75 billion.

24 --o0o--

25 MSCD AIR POLLUTION SPECIALIST FREGOSO: The total

1 cost of the regulations is also significant and is
2 estimated at over \$4 billion from 2023 through 2050 with
3 the maximum annual cost of \$350 million during its first
4 year of full implementation expected around the 2024 time
5 frame. Staff estimates the cost effectiveness of the
6 program would be \$1.84 per pound of NOx reduced and about
7 \$62 per pound of PM reduced. This is well within the
8 range of previously adopted CARB regulations.

9 The majority of the costs stem from annual per
10 vehicle compliance fees, vehicle repair costs, and vehicle
11 testing costs. While the costs of the proposal are
12 significant, the monetized health benefits eclipse the
13 estimated cost by more than a factor of 18.

14 --o0o--

15 MSCD AIR POLLUTION SPECIALIST FREGOSO: I will
16 now summarize the 45-day comments and discuss our proposed
17 15-day change.

18 --o0o--

19 MSCD AIR POLLUTION SPECIALIST FREGOSO: Staff
20 released the rulemaking package for a 45-day public
21 comment period for submitting written comments ahead of
22 today's hearing. The comment period closed on November
23 29th. We received a total of nine comments letters with
24 the main comments related to two proposed regulatory
25 provisions.

1 The first is the proposal's requirement for
2 periodic compliance testing two times per year. And the
3 second one is the one-time compliance extension due to the
4 unavailability of emissions control components needed for
5 vehicle repairs.

6 Starting with periodic testing frequency, staff
7 believes its proposed semiannual testing requirements are
8 necessary and appropriate to ensure malfunctioning
9 emission control components are identified and repaired in
10 a timely manner and to allow for effective implementation
11 of a new comprehensive and complex program at its
12 inception. As staff collects a large volume of data
13 during the first years of the program, we are committed to
14 rigorously evaluating program performance and assessing
15 whether changes are needed.

16 Next, the trucking industry has expressed concern
17 with the parts unavailability compliance extension
18 restricted to fleets of 10 or fewer vehicles. Global
19 supply chain delays resulting from the pandemic are
20 creating supply shortages of NOx sensors, diesel exhaust
21 fluid sensors, and other emission control components and
22 affect the ability of fleet owners to repair their
23 vehicles in the proposal's time frame.

24 As a result, the trucking industry supports
25 expansion of the parts unavailability compliance extension

1 to fleets of all sizes. After further evaluation, we are
2 proposing a 15-day change to our original proposal to
3 expand the parts unavailability compliance extension to
4 fleets of all sizes. We believe this added flexibility
5 will provide relief to fleets affected by shortages and
6 emission control components due to the historic unforeseen
7 events.

8 --o0o--

9 MSCD AIR POLLUTION SPECIALIST FREGOSO: With
10 that, I'll now conclude our presentation with staff's
11 recommendation. Staff recommends the Board approve
12 Resolution 21-29 and the proposed 15-day change. The
13 Heavy-Duty Vehicle Inspection and Maintenance Program will
14 be a comprehensive, cost-effective, and technically
15 feasible program that provides significant and critically
16 needed air quality and health benefits for all residents
17 in California.

18 Moving forward, staff is committed to actively
19 outreaching and engaging with stakeholders to ensure an
20 effective program rollout that significantly reduces
21 harmful pollution in our communities and streamlines
22 compliance efforts for vehicle owners.

23 Thank you, Chair Randolph, Senator Leyva, and
24 other members of the Board. We are now ready to answer
25 any questions you may have.

1 CHAIR RANDOLPH: All right. Thank you for that
2 presentation. Because we are fortunate enough to have the
3 author of the SB 210 on our Board, before we go public
4 comment, I just wanted to give Senator Leyva a few moments
5 to speak about this proposed regulation.

6 SENATOR LEYVA: Thank you very much, Madam Chair.
7 I would first like to do a huge thank you to the CARB
8 staff for the great presentation and all of your hard
9 work. Thank you. Thank you. Thank you.

10 It took my office almost three years to get SB
11 210 signed into law and it's beyond exciting to be here
12 today and to get to be a part of it. These changes are
13 long overdue and I believe it is what we need to keep
14 moving the needle forward on air quality and climate
15 change.

16 For those of you who don't know, Senate District
17 20, my district, we have more warehouses in my district
18 than anywhere in the country and only one other place in
19 the world. So the warehouses may not pollute, but the
20 trucks that come in, sometimes more than a thousand per
21 warehouse per day, do pollute, and cause big problems in
22 the air quality in my district.

23 I had no idea when we entered -- until we
24 introduced the bill that heavy-duty vehicles, or trucks,
25 were not required to have a Smog Check, as instituted in

1 1984. So for almost 40 years, these trucks have not had
2 to do what all of us have had to do with our trucks -- or
3 with our vehicles every day, every year.

4 The benefits of the Heavy-Duty Inspection and
5 Maintenance Program will be enormous and have the
6 potential to reduce emissions more than any other measure
7 that has been before the Board since 2008, as you heard.
8 Even though these statistics were already mentioned, I
9 feel that they bear repeating.

10 The program will avoid approximately 7,176
11 premature deaths - that's a lot of people - 3,300 ER
12 visits, and 2,400 hospitalizations for cardiovascular or
13 respiratory illnesses. The benefits of the program will
14 bring to our environment, our communities, and the health
15 and well-being of our families here in California are
16 clear and substantial.

17 In September, I submitted a letter to the Board
18 asking the staff to take into consideration making some
19 changes in regard to these regulation. I appreciate that
20 most of those changes are reflected in the current
21 regulations before the Board today. That being said, one
22 item is still outstanding, and that is quarterly reporting
23 of trucks with on-board diagnostics. This quarterly
24 reporting will ensure that any emissions control problems
25 are caught and fixed in a timely manner, allowing us to

1 get dirty trucks off our roads quicker, while keeping
2 cleaner and greener trucks on operating. This is the goal
3 of the Heavy-Duty I/M Program. It is also my
4 understanding that submitting data from the on-board
5 diagnostic systems is very streamlined, much easier than
6 the Smog Check that we require for cars.

7 I firmly believe that for far too long, we have
8 let a majority of these trucks go unchecked when it comes
9 to how much they actually pollute. As we begin to
10 implement this program, it is crucial for the State to
11 collect as much data and knowledge on the emissions levels
12 of these trucks.

13 As Maya Angelou once said, do the best you can
14 until you know better. Then when you know better, do
15 better.

16 We cannot know bet -- do better or know better if
17 we are not collecting, analyzing, evaluating the outcomes
18 of this program at the highest possible level and I
19 believe that quarterly reporting will allow for that.

20 Simply put, quarterly reporting will result in
21 lowering health risks and saving more lives. And
22 specifically CARB staff estimates that by increasing the
23 reporting frequency from semiannually to quarterly, we
24 could save an additional 461 lives. In my opinion, that
25 fact alone should be a reason enough to increase the

1 reporting frequency. As the author of the bill that
2 requires these regulations, I would ask that they be
3 amended to include quarterly reporting for trucks with
4 on-board diagnostic systems.

5 And I would just also like to note that under
6 these regulations nothing new needs to be bought. What we
7 just worked on for the last five hours, requires people to
8 switch from gas emission controls to electric -- off-road
9 gas-powered engines to electric. This just requires
10 testing and then maintaining your truck, so that that way
11 you aren't polluting.

12 I again want to thank the CARB staff very much
13 for all your hard work and my appreciation for your
14 continued partnership with my office. Thank you. I look
15 forward to hearing the public comment and other Board
16 members' thoughts on this item, and I'm always happy to
17 answer any questions.

18 Thank you.

19 CHAIR RANDOLPH: Thank you.

20 Okay. We're ready to take public comment. So
21 Board Clerk, will you please call the first few
22 commenters.

23 BOARD CLERK ESTABROOK: Yes. Thank you, Chair.
24 We currently have 18 people with their hands raised to
25 speak on this item. If you would like to speak, please

1 raise your hand in Zoom or dial star nine, if you're
2 calling in on the phone. And if you do require
3 interpretation assistance, please indicate so at the
4 beginning of your testimony.

5 Our first three commenters are going to be Karen
6 Jakpor, Bill Magavern, and Chris Shimoda.

7 Karen, you can unmute and begin.

8 DR. KAREN JAKPOR: Good afternoon. My name is
9 Dr. Karen Jakpor. And I'm a physician volunteer with
10 American Lung Association from Riverside. I have followed
11 the development of the truck Smog Check for years and have
12 even walked the halls of the capital with my daughter
13 Jibiana supporting Senator Leyva's legislation. I'm a
14 physician with a Master's in Public Health, but I also
15 have the perspective of a patient who has been
16 hospitalized with severe asthma countless times. I know
17 firsthand how hard it is to simply breathe when the air is
18 so often unhealthful.

19 We've recently gone through a stretch of
20 extremely challenging pollution with both red and purple
21 days. Breathing was a struggle during the Thanksgiving
22 holiday and I needed to do a steroid burst to get through.
23 This is sadly not uncommon in California. For many, our
24 daily lives are affected by air pollution. And often, the
25 source of our challenge is the thousands of trucks passing

1 through our region daily. I'm not alone in this and I
2 know that environmental justice communities have extreme
3 burdens along the pathway all along the way from the
4 ports, to the railyards, to the warehouses near me in the
5 Inland Empire or in the San Joaquin Valley.

6 Adopting the heavy-duty Smog Check Program is a
7 major public health policy at its core. I signed a letter
8 with fellow medical professionals and over two dozen
9 health organizations ranging from pediatricians, nurses,
10 asthma specialists from Long Beach, Fresno, and Kern
11 County and many others calling on CARB to strengthen and
12 adopt this rule. Cleaning up trucking pollution in my
13 region in the San Joaquin Valley and throughout California
14 is sorely needed and sorely overdue.

15 CARB estimates that enacting this proposal will
16 generate over 70 billion in public health benefits and
17 save over 7,500 lives. Strengthening the proposal to
18 ensure quarterly smog checks for the newest trucks will
19 save hundreds more lives.

20 CARB must strengthen the proposal and adopt this
21 rule so that we can celebrate this momentous day.

22 Thank you very much.

23 BOARD CLERK ESTABROOK: Thank you.

24 Bill Magavern, you can unmute and begin.

25 BILL MAGAVERN: Thank you. Bill Magavern with

1 the Coalition for Clean Air. And it's been just about
2 five years since Senator Leyva and I first discussed
3 legislation to require a Smog Check for heavy-duty trucks.
4 And, Senator, I salute your persistence and your skill in
5 negotiating this law through the legislative process. And
6 now, it's really exciting to me to be here when we're
7 finally seeing the regulations to implement SB 210. And I
8 really thank the ARB staff for the excellent work they've
9 done and the inclusive and open process that they have
10 run.

11 As Senator Leyva said, when we talked about this
12 issue, just about everybody was amazed to find out that
13 trucks didn't already have the kind of Smog Check that our
14 cars have. In fact, when I had a chance to speak with
15 Governor Newsom about this, he was shocked to find that
16 out and a few months later, he signed the bill into law.

17 We've heard about the really staggering emission
18 reductions that we're expecting to see from this rule and
19 not only are they large in scope, but these emission
20 reductions won't happen in 2040. These are relatively
21 early reductions that are desperately needed, especially
22 in our disadvantaged communities.

23 As Senator Leyva said, the rule should be
24 improved by requiring quarterly reporting for those trucks
25 that are equipped with on-board diagnostics. And I speak

1 for 18 other groups who are supporting that improvement.
2 We know that the goal of this program is to make sure that
3 maintenance problems are fixed and excess emissions
4 reduced as soon as possible. And up to six months is too
5 long to have that extra pollution afflicting our
6 communities.

7 You heard from the Senator that just making this
8 improvement would save an additional 461 lives. So that
9 strengthening would actually put this in the same realm as
10 many of CARB's entire regulations in terms of its
11 benefits. This requirement we think would not be onerous,
12 because the on-board diagnostics and the streamlined way
13 that the program has been set up would make it relatively
14 easy for truckers to comply, not like it is for car owners
15 who have to go to a brick and mortar station.

16 And we know the excess emissions from poorly
17 maintained trucks have especially adverse impacts on our
18 low-income communities of color that are already
19 disproportionately burdened by pollution, so we can't
20 afford to pass up the opportunity for these life-saving
21 reductions in harmful emissions.

22 So this is going to be a great day in clean air
23 history for California, and we urge you to take that extra
24 step to make this rule as strong as it can be.

25 Thank you so much.

1 BOARD CLERK ESTABROOK: Thank you.

2 Next, we will hear from Chris Shimoda. After
3 Chris will be Tom Jordan, Kevin Brown, and Leela Rao.

4 Chris, you may unmute and begin.

5 CHRIS SHIMODA: Good afternoon, Chair Randolph
6 and members of the Board. Chris Shimoda with the
7 California Trucking Association. Thanks for the
8 opportunity to address you today.

9 We'd first like to thank staff for their work in
10 bringing this rule to the Board and say that we appreciate
11 the many hours of dialogue that we had during this
12 process. Given significant parts availability issues
13 brought on by persistent ongoing supply chain problems,
14 we're pleased with staff's proposed 15-day changes to
15 provide flexibility in the event of parts unavailability
16 to all fleets. We need every possible truck on the road
17 to meet our current supply chain challenges, so this
18 change is absolutely critical.

19 We also will continue dialogue with staff
20 regarding implementation issues for rental fleets and
21 streamlined enforcement at freight facilities, so that we
22 do not add to already congested conditions at ports and
23 railyards.

24 Regarding testing frequency, we support staff's
25 decision to keep twice annual testing. In fact, given

1 that staff estimates just three percent of malfunctioning
2 trucks are contributing two-thirds of all diesel
3 particulate matter, we believe that we're overtesting the
4 vast majority of fleets at twice a year. To the extent
5 changes are made in the future, we do think a compromise
6 could be had as this program is implemented. We hope to
7 reduce the testing burdens of those 90 plus percent of
8 well-maintained fleets and concentrate any enhanced
9 testing, including quarterly testing on those vehicles and
10 fleets which are found to be gross emitters.

11 Finally, I wanted to address language in the
12 Board resolution regarding the intent of the \$30 testing
13 fee option. While we have no issues prioritizing testing
14 locations in and around disadvantaged communities, the
15 enacting bill specifically directed CARB to make a \$30
16 test and fee option as widely available as possible. We
17 would ask that CARB follow that direction and ensure these
18 options are readily available to truckers throughout the
19 State. Thank you for your time. Thanks again to staff
20 and to Senator Leyva as well for all the hard work. This
21 is a major new program and we look forward to working with
22 you all on a successful and smooth implementation.

23 Thank you.

24 BOARD CLERK ESTABROOK: Thank you.

25 CHAIR RANDOLPH: So Board Clerk, I'm going to

1 suggest that we close the queue in five minutes. So if
2 you have not yet singed up to speak, please sign up before
3 3:29.

4 BOARD CLERK ESTABROOK: Thank you.

5 Tom Jordan, you can unmute and begin.

6 TOM JORDAN: Thank you, Madam Chair, members of
7 the Board. Tom Jordan with the San Joaquin Valley Air
8 Pollution Control District. Mobile sources are the
9 largest contributor to the valley and State's air quality
10 challenge, with heavy-duty trucks being the single largest
11 initial -- emissions source in that category, contributing
12 40 percent of the total ozone and PM-forming NOx emission
13 in the valley and the majority of toxic diesel particulate
14 air pollution for communities near major roadways.

15 The valley will not be able to meet health-based
16 air quality standards without significant new emission
17 reductions from mobile sources, including with respect to
18 heavy-duty trucks.

19 CARB and EPA have the authority to reduce new and
20 in-use mobile source emissions in California and the State
21 has committed to reduce heavy-duty truck emissions in
22 federal air quality plans to meet national air quality
23 standards and improve public health in the valley. As
24 part of a comprehensive strategy to work with fleets to
25 accelerate the deployment of the latest and cleanest truck

1 technologies, ensuring that the emission control systems
2 on trucks continues to function properly throughout the
3 life of vehicles is an important component of the State's
4 efforts to reduce truck emissions. As you heard from
5 staff in the -- as you heard from staff in their
6 presentation.

7 The District has continuously expressed support
8 for the development of an effective and efficient
9 heavy-duty truck emissions verification program to ensure
10 that these emissions reductions are achieved. And the
11 District appreciates CARB's efforts to address these
12 emissions and the opportunity to comment on this important
13 item.

14 BOARD CLERK ESTABROOK: Thank you.

15 Kevin Brown, please unmute and begin.

16 KEVIN BROWN: Good afternoon. I'm Kevin Brown
17 representing the Manufacturers of Emission Controls
18 Association. From combustion to electrification, MECA
19 members have over 50 years of experience in developing and
20 manufacturing emissions control, greenhouse gas reduction,
21 and electrification technologies for a wide variety of
22 on-road and off-road vehicles, and equipment in all-world
23 markets.

24 In addition, our members manufacture the sensors
25 and controls for on-board diagnostic systems, which are

1 critical to this regulation. MECA has submitted more
2 extensive comments in writing. However, today, we
3 appreciate the opportunity to emphasize a few points in
4 our support of CARB's continued efforts to implement
5 heavy-duty I/M requirements.

6 Since 2010, heavy-duty on-road engines have
7 employed advanced engine and emission control technologies
8 to reduce NOx and PM emissions by over 90 percent, as well
9 as reduce greenhouse gases. The recently adopted Omnibus
10 Regulations will further reduce in-use NOx emissions by
11 another 90 percent below today's levels.

12 For decades, periodic inspection and maintenance
13 has been a proven approach to ensure the intent of
14 emissions benefits and we applaud staff for developing a
15 methodology for heavy-duty trucks.

16 In the past, we've worked with staff to develop
17 tighter periodic opacity testing requirements on diesel
18 particulate filter equipped trucks and supported the use
19 of on-board NOx sensors for monitoring of SCR systems.
20 The combination of OBD, opacity, and visual inspections
21 will provide cost effective pathways to provide important
22 diagnostic information to vehicle owners, as well as
23 address the minority of in-use trucks that are responsible
24 for the significantly elevated emissions.

25 Furthermore, comprehensive I/M programs serve as

1 an effective deterrent to those who may tamper with
2 emission controls ensuring that the originally installed
3 systems are operating as designed for the life of the
4 truck. Therefore, we enthusiastically support this
5 proposal and believe it will serve as a model for other
6 states to follow.

7 We also encourage CARB to work with the diesel
8 engine emission control manufacturers and truck fleets to
9 use the data collected in this program to further improve
10 the understanding of real-world emissions deterioration.
11 MECA believes that such collaborative programs will be
12 vital in the years leading up to and during the
13 implementation of the Omnibus requirements. MECA further
14 recommends that CARB staff continue to expand and improve
15 the program for use with non-road equipment as well.

16 In addition, an important opportunity exists for
17 CARB to work with manufacturers to collect in-use data
18 from heavy-duty electric trucks to help inform how these
19 vehicles are performing in the real world and to
20 understand how in-use operation and charging behavior
21 impacts our operational performance, battery durability,
22 and range.

23 As always, we look forward to working with CARB
24 to ensure that current and future vehicle technologies
25 yield the intended emission benefits. As the heavy-duty

1 fleet transitions to electric powertrains, we have to
2 ensure that the millions of in-use heavy-duty engines are
3 as clean as possible, so that California achieves its air
4 quality goals through the full benefits of its mobile
5 source regulations.

6 BOARD CLERK ESTABROOK: Thank you.

7 KEVIN BROWN: Thank you for the opportunity to
8 comment and I'm happy to answer any questions you might
9 have.

10 BOARD CLERK ESTABROOK: Thank you.

11 Our next speaker will be Leela Rao. After Leela
12 will be Ed Ward, Mike Tunnell and Todd Campbell.

13 Leela, please unmute and begin your comment.

14 LEELEA RAO: Good afternoon, Chair Randolph and
15 members of the Board. My name is Leela Rao and I'm here
16 today speaking on behalf of the Port of Long Beach. The
17 Port of Long Beach is in support of the proposed
18 Heavy-Duty I&M Regulation as it will help reduce in-use
19 truck emissions in and around the ports. These near-term
20 emission reductions are important to help protect our
21 surrounding communities, while we work to transition the
22 drayage fleet to zero-emission operations by 2035.

23 There is however one element of the proposed
24 regulation that has the potential to increase truck
25 emissions, if not addressed by CARB staff prior to final

1 approval of the regulation. The proposed freight facility
2 requirements would have the port terminals and intermodal
3 railyards check every truck entering the facility for
4 compliance with the Heavy-Duty I&M Regulation.

5 Given that the San Pedro Bay ports see an average
6 of 36,000 truck visits per day, this is an impossible task
7 for the terminals to comply with as manually checking
8 compliance certificates on this many trucks is simply not
9 feasible. In addition, longer truck queues outside of
10 port terminals and increased idling time for trucks caused
11 by the manual compliance checks could negate emission
12 benefits this rule intends to achieve and exasperate the
13 current congestion impacts at the port complex.

14 We have discussed this issue at length with CARB
15 staff and propose an alternative pathway which we feel
16 significantly minimizes the burden on the terminals that
17 also ensures compliance with the rule. We recommend that
18 the trucks are checked for compliance when they register
19 annually with the ports or for one-time callers when they
20 apply for a day pass for port access.

21 Another alternative would be linking the
22 heavy-duty I&M database, which has yet to be developed,
23 with the existing State drayage truck registry. The San
24 Pedro Bay ports currently link our port's drayage registry
25 with the State registry to ensure only compliance --

1 trucks compliant with the State drayage rules enter the
2 terminals. Trucks visiting container terminals utilize
3 RFID tags that allow for trucks to be scanned and
4 greenlighted for entry if they're compliant with the
5 necessary State and port requirements.

6 Linking the I&M database with the State drayage
7 truck registry would provide a mechanism for terminals to
8 check for compliance with both rules simultaneously,
9 thereby ensuring only compliant trucks receive terminal
10 access, but in a safe, timely, and efficient manner.

11 We urge you to direct staff to develop a 15-day
12 change to allow for annual compliance checks, instead of a
13 compliance -- instead of checking compliance every time a
14 truck visits a terminal or to work with ports and other
15 industry stakeholders to find a technical solution to this
16 issue.

17 Thank you.

18 BOARD CLERK ESTABROOK: Thank you. Ed Ward, you
19 can unmute and begin.

20 Ed, are you there?

21 ED WARD: Yes. I'm sorry. Apologize for the
22 delay.

23 I want to thank Chair Randolph and the CARB Board
24 for the legacy work that CARB -- that is represented by
25 CARB. As a child of the 60s, I lived through very poor

1 air quality. Incrementally, I've invested thousands of
2 dollars over the years to partner with CARB in reducing
3 vehicle air pollution.

4 Zero-emissions vehicles provide us the best
5 choice to deliver the highest air quality to our children
6 in the future, but I fear the single choice to go electric
7 and the constant assault on near-zero alternatives
8 overlook the value of biomass liquid fuel as biodiesel,
9 renewable diesel, and renewable compressed natural gas,
10 which gives significant emissions reductions when run in
11 new technology engines.

12 HD I/M will be putting unnecessary burdens on our
13 children and economically challenged. It is these
14 individuals who will most -- will be most affected by the
15 unavoidable increases in the cost of goods in
16 transportation. HD I/M, as it will -- as it is presented
17 today will cripple movement of goods in California and is
18 another layer of regulation in cornucopia of existing
19 regulations that is unnecessary.

20 The use of existing regulations to monitor and
21 enforce truck operations -- operational standards is
22 sufficient. To replace the estimated 1.6 heavy-duty --
23 million heavy-duty trucks in California by 2030 would
24 require that 685 trucks a day be built, five days a week,
25 52 weeks of the year to meet the 2030 deadline. It would

1 mean that 256 trucks a day would have to be built to meet
2 the 2045. These facts, along with the power grid
3 estimated to -- need to be a minimum four times larger
4 than we have today, pose huge challenges ahead for all who
5 value clean air.

6 I would ask that the CARB staff continue to hold
7 HD I/M workshops along with developing a larger pilot
8 study over the next two years to assure that families and
9 freight costs will not be victims of HD I/M. This
10 additional time will allow CARB to validate studies
11 regarding emissions reductions ultimately allowing
12 advanced technology to assist in developing smoother
13 transition to electric hydrogen vehicle use.

14 As a long-time partner in the development of
15 clean air across California, we've come a long way since
16 the 60s. The necessity to adapt HD I/M at this time needs
17 more time to mature. I assure -- to assure the best paths
18 are chosen and new technology has the time to be
19 implemented.

20 Thank you.

21 BOARD CLERK ESTABROOK: Thank you.

22 Mike Tunnell, please unmute and begin.

23 MIKE TUNNELL: Good afternoon, Chair Randolph and
24 members of the Board. My name is Mike Tunnell. I am with
25 the American Trucking Association, the largest national

1 trade association for the trucking industry.

2 First, I would like to recognize staff's efforts
3 to meet with our membership over the past couple years to
4 discuss the proposed program. They have been open to
5 hearing our ideas and concerns and I appreciate the time
6 and effort they have put in.

7 That is not to say we don't have concerns with
8 the program. As we have recently experienced, the flow of
9 interstate commerce can be fragile. Programs such as this
10 have the potential to further restrict the number of
11 trucks that are eligible to service the state, either
12 directly or indirectly.

13 Since this type of program has never been done
14 before, successful implementation must ensure truck owners
15 have prompt access and sign-off from the compliance system
16 to continue or begin operating in the state. We hope the
17 system -- we hope system access will be a focus and
18 recommend a soft enforcement period, consisting of
19 education, awareness, and compliance, rather than
20 citations, as the different program components are rolled
21 out.

22 Additionally, we support expanding the parts
23 unavailability extension to fleets of all sizes. The size
24 of a company does not provide immunity to the vagaries of
25 today's supply chain.

1 I would also like to echo the comments of my
2 colleague at the California Trucking Association regarding
3 testing frequency. We do not believe that subjecting the
4 majority of the -- of trucks, which are compliant, to
5 quarterly testing is appropriate. We have met with staff
6 and discussed this for quite a period of time and believe
7 that until we get more data out of the program, their
8 proposal is appropriate.

9 Lastly, we believe an interstate trucks
10 compliance fee should be prorated in accordance with its
11 level of activity in the state, similar to the other
12 apportionment programs motor carriers participate in when
13 operating in the state.

14 Thank you for considering these and the other
15 recommendations contained in our comment letter.

16 BOARD CLERK ESTABROOK: Thank you.

17 Our next speaker will be Todd Campbell. After
18 Todd will be a phone number ending in 528, a phone number
19 ending in 057, and then Will Barrett.

20 Todd, you can unmute and begin.

21 TODD CAMPBELL: Thank you. Hopefully you can
22 hear me.

23 Congratulations. This is Todd Campbell as the
24 Chair of the California Natural Gas Vehicle Coalition.

25 Congratulations, Senator Leyva, on your passage

1 of SB 210 and making this day happen. And also, as the
2 former Chair of the Coalition for Clean Air, when this
3 bill actually passed under strong leadership with Bill
4 Magavern and Joe Lyou, I want to congratulate and
5 shout-out to Coalition for Clean Air for their strong work
6 on this effort.

7 This is a glorious day. You know, 30 tons of NOx
8 reductions by 2024 is huge by any account. And CNGVC
9 supports this measure strongly, because we believe that
10 short- or near-term emissions reductions matter. And so
11 we are -- we are ecstatic about, you know, the Air
12 Resources Board moving forward with this type of a
13 measure, because what it means is that people breathing
14 air in the South Coast, in the San Joaquin Valleys and
15 other areas that are impacted by heavy-duty NOx trucks --
16 or heavy-duty diesel trucks will achieve some form of
17 relief in the near term.

18 You know, the California Natural -- I mean, the
19 CNGVC also supports this measure strongly, because
20 we truly believe in low-NOx technology and its durability
21 and its resilience. As you know, low-NOx trucks reduce
22 emissions compared to diesel technology up to 90 percent.
23 And that is substantial.

24 And you know, while this measure alone does not
25 get us to where we need to be when it comes to federal

1 attainment by 2023 and 2024, this is a huge step. This is
2 a huge stride forward. And that goes, you know, to a huge
3 testament to Senator Leyva's efforts and also the
4 California Air Resources Board staff's, you know, efforts
5 in terms of trying to reduce emissions here throughout the
6 state of California.

7 And I just want to say, as someone who has been
8 born and raised in Southern California since the 1970s and
9 has been a victim of air pollution, I really want to thank
10 everyone for this measure. This is incredibly important
11 and I urge your aye vote to move forward on this.

12 Thank you.

13 BOARD CLERK ESTABROOK: Thank you.

14 Phone number ending in 528, please state your
15 name for the record and then you may begin.

16 LAURA ROSENBERGER HAIDER: Hello. My name is
17 Laura Rosenberger -- hello. My name is Laura Rosenberger
18 Haider. I'm in favor of your proposed regulations,
19 because improving air quality is very important to
20 preventing COVID outbreaks, decreasing it, and -- but more
21 important than that is -- is that is it's in disadvantaged
22 communities a lot of those trucks, and it will help
23 disadvantaged communities by those regulations.

24 All right. Thank you. I'm done.

25 BOARD CLERK ESTABROOK: Thank you.

1 Our next speaker will be a phone number ending in
2 057. Please state your name for the record and then you
3 can unmute and begin. You should be prompted to dial star
4 six in order to unmute.

5 There you go.

6 KATIE LITTLE: Hi. This is Katie Little with the
7 California Farm Bureau. I'm calling in to, first of all,
8 thank staff for their continued dialogue and conversation
9 with our members, so that we could make this eventual
10 program doable for the ag community. We did submit a
11 comment letter with further details and they have some
12 further clarifications and additions, but we generally
13 appreciate all the discussion.

14 Thank you.

15 BOARD CLERK ESTABROOK: Thank you.

16 Our next speaker will be Will Barrett. After
17 Will will be Thomas Jelenic, Jibiana Jakpor, and Peter
18 Okurowski.

19 Will, you can unmute and begin.

20 WILL BARRETT: Thank you very much. I'm Will
21 Barrett with the American Lung Association speaking in
22 strong support of this life-saving proposal.

23 The proposal before you represents a monumental
24 step forward for clean air and healthy lungs for every
25 Californian and especially those communities and residents

1 most overburdened by traffic pollution. The American Lung
2 Association co-sponsored Senate Bill 210 with the
3 Coalition for Clean Air. And we're very proud of that
4 work and very, very appreciative of Senator Leyva's
5 stick-to-itiveness over the many years it took to get it
6 through.

7 We believe it's beyond time to act and very much
8 support Senator Leyva's comments and call for
9 strengthening the proposal. Over the years that it took
10 to get this -- Sb 210 through the Legislature, my youngest
11 daughter, Maggie, was a vocal critic about the fact that
12 our hybrid car in our driveway was going through Smog
13 Check, but the big trucks that made her hold her nose on
14 our walk to her elementary school really were not. I was
15 very proud of her. We still call SB 210 Maggie's Bill in
16 our house.

17 And today, 26 health and medical organizations
18 are calling on the Board to strengthen and approve the
19 proposal before you today. We support the applicability,
20 the targeted rollout, the role of facilities and
21 contractors in the rule, and the testing requirements for
22 non-OBD equipped trucks.

23 Again, we strongly support Senator Leyva's
24 proposal to strengthen the rule to maximize the health
25 benefits. And by moving OBD-equipped trucks to quarterly

1 reporting, CARB staff has estimated for us that more rapid
2 corrections in the rule could save an additional 461
3 lives. That's a huge number on its own, as you heard from
4 Mr. Magavern. That's nearly twice the benefits of the At
5 Berth Regulation that the Board approved last year. So
6 these are huge additional benefits.

7 The 7,500 lives saved makes this program the most
8 health protective program measure that I've ever worked on
9 in my 12 plus years at the American Lung Association. And
10 this represents the largest share of emission reductions
11 on the table to meet health protective standards. These
12 benefits accrue right away. This is a critical point.
13 These are very near-term emission reductions, especially
14 in the San Joaquin Valley and the South Coast.

15 So really kind of in closing, we urge CARB to
16 strengthen the proposal to carefully coordinate
17 implementation across the affiliated agencies to capture
18 the massive levels of pollution reductions, save more
19 lives, and leave no health benefits on the table.

20 I'll end just by noting that Maggie is off to her
21 first formal dance tonight. I know that she's interested
22 in the proceedings here today, but certainly not as
23 interested in -- as I am in what's going to go on at her
24 dance.

25 So Maggie and I both thank you. We urge you to

1 move it forward, so that all Californians and all the
2 Maggies across the state can breathe healthier air on
3 their walk to school. Thank you.

4 BOARD CLERK ESTABROOK: Thank you.

5 Thomas Jelenic, you may unmute and begin.

6 THOMAS JELENIC: Good afternoon, Chair Randolph
7 and CARB Board members. My name is Thomas Jelenic with
8 the Pacific Merchant Shipping Association. PMSA
9 represents the marine terminal operators and ocean
10 carriers operating in California's ports. PMSA
11 appreciates the opportunity to comment today. We share
12 the concerns voiced earlier by the Port of Long Beach
13 today. PMSA, and other stakeholders, have discussed with
14 CARB staff the importance of linking the HD I&M Program to
15 the State Drayage Truck Registry.

16 Marine container terminal gates are fully
17 automated and rely on RFID and information technology to
18 check the State Drayage Truck Registry, for every truck
19 entering the facility, remotely.

20 As currently written, marine container terminals
21 cannot successfully comply with the proposed rule without
22 the databases linked, since terminal staff cannot be
23 safely placed in automated marine terminal gates. With
24 the link, marine container terminals can ensure
25 compliance. It is important to remember that with over

1 35,000 inbound trips a day to Southern California's ports,
2 if there is no link between HD I&M and the State Drayage
3 Truck Registry, there would be an enormous impact to the
4 state supply chain, making the existing supply chain
5 crisis far, far worse.

6 Second, PMSA asks that staff work with the port
7 stakeholders to conform reporting requirements for
8 non-container terminals to the reporting requirements in
9 the State Drayage Truck Registry to meet the needs of
10 those specific facilities across the state.

11 And finally, we ask that the staff revise the
12 reporting requirements in section 2197.3(d) to clarify
13 that the reporting requirements on applicable freight
14 facilities do not apply to trucks delivering goods to the
15 end user or consumer.

16 Thank you for your time today and we appreciate
17 the opportunity to comment.

18 BOARD CLERK ESTABROOK: Thank you.

19 Jibiana Jakpor, you can unmute and begin.

20 JIBIANA JAKPOR: My name is Jibiana Jakpor. I'm
21 a high school student from Riverside and I urge you to
22 approve the Heavy-Duty Inspection and Maintenance Program
23 as soon as possible. My area has some of the worst air
24 pollution in the United States, a large portion of it
25 comes from the trucks carrying goods to and from the

1 thousands of warehouses here.

2 I have been seeing the negative impacts on the
3 health of family and friends for years, so I was ecstatic
4 when SB 210 was proposed. When I was a freshman, I went
5 to Sacramento to support the bill with the American Lung
6 Association. Now, I'm a senior applying to college and
7 studying for finals. I'm very busy right now, but I must
8 talk to you today because this policy I have been waiting
9 for so long is very important to me. It's going to help
10 my mom who is fighting asthma, my friends, and countless
11 others.

12 Actually, you did count. It will save over 7,000
13 lives by 2037. It would be an understatement to say that
14 you have the opportunity to do a lot of good here. Thank
15 you so much, CARB, for making my community a healthier
16 place.

17 BOARD CLERK ESTABROOK: Thank you.

18 Our next speaker will be Peter Okurowski. After
19 Peter will be Sean Edgar, Mark Snedden, and then Alan
20 Abbs.

21 Peter, you can unmute and begin.

22 PETER OKUROWSKI: Thank you. Good afternoon,
23 Chair Randolph and members of the Board. My name is Peter
24 Okurowski and I'm speaking on behalf of the Association of
25 American Railroad and their members that operate in

1 California, including BNSF Railway and Union Pacific
2 Railroad. We want to thank the staff for listening to our
3 concerns and we have submitted written comments into the
4 record.

5 I'm here today to ask you to direct staff to
6 continue to work with the railroads during the 15-day
7 changes process to resolve two remaining concerns related
8 to the reporting requirements for the applicable freight
9 facilities.

10 First, as the Port of Long Beach and PMSA
11 mentioned a few minutes ago, we believe it is imperative
12 that CARB link the Heavy-Duty I&M database with the State
13 Drayage Truck Registry. Allowing the Drayage Truck
14 Registry to determine whether trucks comply with the
15 Heavy-Dut I&M Regulation would be efficient and
16 practicable for both CARB and the regulated entities.

17 Second, we ask staff to revise the reporting
18 requirements in section 2197.3(d) to clarify that the
19 reporting requirements on applicable freight facilities do
20 not apply to trucks delivering goods to the end user or
21 consumer.

22 Thank you.

23 BOARD CLERK ESTABROOK: Thank you.

24 Sean Edgar, you can unmute and begin.

25 SEAN EDGAR: Hi. How is my volume?

1 BOARD CLERK ESTABROOK: Sounds good.

2 SEAN EDGAR: Great. Thank you. This is Sean
3 Edgar speaking to you on behalf of the Western States
4 Trucking Association. And just to bring to attention some
5 serious gaps that need fixing before the regulation would
6 have any chance of being successfully implemented. Just
7 to share that the existing Periodic Smoke Inspection
8 Program has been in place since the 1990s. Our members
9 have achieved high rates of compliance. Your staff has
10 noted that more than 90 percent of the trucks during the
11 PSIP implementation phase have been in compliance.

12 Western States Trucking Association knows a lot
13 about this, because early on, we bought equipment to help
14 keep our members in compliance with the regulation more
15 than 15 years ago purchasing equipment and providing that
16 service to our members.

17 The assertion that heavy-duty trucks have somehow
18 escaped testing over the years is false. We have a
19 light-duty Smog Check in California that requires once per
20 year -- once each two-year testing cycle. And the key to
21 consumer participation is the link to DMV registration and
22 also consumer assistance that the BAR, or Bureau of
23 Automotive Repair, has a system in place to reliably
24 capture the testing data and its pretty seamless for the
25 customer.

1 Unfortunately, we have gaps in the current staff
2 proposal that need to be fixed before implementation. As
3 proposed by staff, the current proposal is about four
4 times more aggressive than the BAR program. And what I
5 mean by that is by requiring testing every six months,
6 that's at least four times over each two-year cycle that
7 testing would need to be completed. Quarterly testing at
8 this stage with the absence of a proven program, I believe
9 that quarterly testing would be overkill and would not be
10 achievable.

11 And in the time I have left, I'll give a few
12 practical suggestions. Working off of slide 23, you've
13 heard from other sources of concerns why this program is
14 going to have significant challenges. First of all on
15 passing through the RMD network, the Engine Manufacturers
16 Association noted that there are some significant false
17 flagging problems that need to be fixed. With regard to
18 the obtaining certificates of compliance and freight
19 contractor responsibilities, we know that the future
20 reporting system must be a user-friendly system that
21 allows for digital certification and digital records to be
22 supplied for the purposes of enforcement.

23 Our letter to you contains information about the
24 compliance fee. American Trucking Association's noted
25 their concern for their members and similarly we note.

1 And our letter identifies the SAFETEA-LU provisions in
2 federal law that may limit your ability to charge a fee.
3 So we encourage you to look at our letter.

4 And just to wrap up, with regard to the testing
5 equipment, you've noted that the engine manufacturers told
6 you they don't -- do not have yet set-and-forget devices,
7 and we know that non-road opacity meters are a challenge.
8 So thank you for considering our comments.

9 BOARD CLERK ESTABROOK: Thank you.

10 Mark Snedden, you can unmute and begin.

11 MIKE LEWIS: Hi. This is Mike Lewis. I'm on
12 Mark Snedden's computer, I guess. And I'm here today on
13 behalf of the Construction Industry Air Quality Coalition.
14 I'm going to quickly summarize our written comments
15 submitted previously and ask that you send this matter
16 back to the staff for further work with the truck owners.

17 We have over a hundred thousand trucks affected
18 by this rule and we're gravely concerned about the gaps,
19 and the weaknesses, and the rationale for this complicated
20 proposal. This is an expensive scheme for truck owners.
21 Had your staff done a proper pilot program called for in
22 AB -- SB 210, you would know all the steps required to
23 comply and you would have an accurate cost for truck
24 owners to comply.

25 Your staff chose to duck that option knowing that

1 the number would be shocking when you add it all up. It
2 costs between \$75 and \$150 each for a smoke test today.
3 These new tests and the means to get them are going to be
4 far more expensive. A fleet owner will need to acquire a
5 dongle or multiple dongles, if he has different brands of
6 trucks, subscribe to a service at a cost of several
7 thousand dollars per year, dedicate staff time to do the
8 testing and reporting. He'll need to do that for each
9 location he owns. It's even more complicated if he rents
10 equipment and needs to track it down. Then he has to do
11 it twice a year. It's a six figure or larger proposition,
12 but you'd never know that reading your staff's analysis.

13 An owner-operator will have to spend the same
14 amount of money or go to a yet-to-be-established testing
15 facility to upload data. All of this cost and
16 inconvenience is being pushed off on truck owners, when it
17 should be the responsibility of the manufacturers to
18 collect and provide the data you are seeking. Since these
19 trucks don't operate if the emission systems are not
20 performing to specifications, this is not about air
21 quality, as much as it is a very expensive and time
22 consuming wild goose chase for data that could be acquired
23 by other means.

24 And your own preliminary research showed that
25 out-of-compliance trucks was minimal. Secondly, you're

1 placing the truck owners at the mercy of two slow moving
2 bureaucracies, CARB and the DMV. DMV is short staffed,
3 underfunded, and couldn't even do the simple task of
4 properly registering people to vote. Now, you're supposed
5 to believe that they can handle a million uploads of data
6 twice a year in order to keep their registration records
7 straight, and that is further complicated by DMVs
8 registration date and CARB's calendar year reporting date
9 not coinciding, a problem you haven't -- you don't have
10 the legislative authority to fix.

11 I've said many times before to your Board, you
12 owe it to us to get the numbers right. That is your one
13 job. And you've not gotten -- and you've given it short
14 shrift in this effort. Without a proper pilot program or
15 a far better analysis than the one you've done, you cannot
16 possibly know the real costs of compliance, including the
17 cost of time, which we've demonstrated is far more than
18 the de minimis amount calculated by your staff probably
19 closer to \$500 per truck. At least make a genuine effort
20 to know the real cost of this regulation before you adopt
21 it.

22 Thank you.

23 BOARD CLERK ESTABROOK: Thank you.

24 Our next speaker will be Alan Abbs. After Alan
25 will be Matt Schrap, Tia Sutton Sysounthorn, and then a

1 phone number ending in 050.

2 Alan, please unmute and begin.

3 ALAN ABBS: Good afternoon, Chair Randolph and
4 members of the Board. I'm Alan Abbs with the Bay Area Air
5 Quality Management District and we are in overall support
6 of CARB's proposal. As my counterpart from the San
7 Joaquin Valley stated reducing heavy-duty truck emissions
8 is one of the most important things we can do to meet air
9 quality attainment standards, reduce air toxics, and
10 improve public health.

11 With respect to the semiannual testing and
12 reporting requirement, we suggest and added requirement
13 for quarterly reporting for vehicles with prior compliance
14 issues or that have been identified as prone to higher
15 emissions based on make or model of the truck, with the
16 ability to return to semiannual testing after succeeding
17 compliant reports.

18 This would minimize reporting requirements for
19 well maintained vehicles, while achieving additional
20 reduction from high emitters. Thank you for the
21 opportunity to comment on this important regulation and
22 thank you to Senator Leyva for your work in authoring this
23 bill and getting it passed.

24 Thanks.

25 BOARD CLERK ESTABROOK: Thank you.

1 Matt Schrap, you can unmute and begin.

2 MATT SCHRAP: Hello. Thank you, Chair Randolph
3 and Board members for the opportunity to comment on
4 another historic Board item. My name is Matt Schrap. I'm
5 the CEO of the Harbor Trucking Association. We're a
6 non-profit coalition of drayage providers which range from
7 the single truck motor carrier to the largest trucking
8 companies doing business in the United States.

9 Our organization is unique in that we maintain a
10 membership of not only trucking companies, but port
11 authorities, marine terminals, beneficial cargo owners,
12 warehouse operators, heavy-duty original equipment
13 manufacturers, and other vendors that support this
14 critical industry.

15 The Heavy-Duty Inspection and Maintenance Program
16 sometimes referred to as the Heavy-Duty Diesel Smog Check,
17 has been a long time coming. First off, we would like to
18 echo our support for comments made by both the California
19 Trucking and the American Trucking Association on testing
20 frequency and we appreciate the 15-day change recognition
21 of parts -- for parts availability.

22 Throughout this process, the HTA, our members, as
23 well as our coalition partners have been engaging with
24 CARB staff throughout the process to address some of the
25 operational challenges and opportunities that have arisen

1 during development of the language. While staff has been
2 directly engaged, it is important to recognize the needs
3 for further investment into the I&M database to ensure
4 safe and efficient enforcement of the provisions contained
5 under the covered facilities portion.

6 Recently, a coalition of stakeholders, including
7 both ports of LA and Long Beach, the California Trucking
8 Association, the Harbor Trucking Association, and the
9 Pacific Merchant Shipping Association submitted a letter
10 to Executive Director Corey on the importance of linking
11 the I/M database to the statewide drayage truck registry.
12 Facilitating information sharing between the two will
13 serve to build on the success marine terminal operators
14 have achieved through remote scan technology, which
15 ensures only DTR-compliant vehicles are allowed to enter
16 marine terminal property.

17 With over 36,000 gate truck transactions taking
18 place each day in the San Pedro Bay port complex, it is
19 crucial that the heavy-duty I&M database and the State
20 Drayage Truck Registry be linked together to provide a
21 practical method to screen while maintaining the integrity
22 of current systems which prevent access to marine terminal
23 facilities by non-compliant vehicles.

24 We have been engaged with staff and executive
25 leadership on this issue and wanted to bring it to your

1 attention to reiterate the importance of addressing this
2 issue in closing the gap on the need for data sharing
3 between the systems in order to ensure successful
4 compliance by covered facility operators and uninterrupted
5 gate transactions at America's port and beyond.

6 Thank you again for the opportunity to comment.
7 We look forward to further discussions.

8 BOARD CLERK ESTABROOK: Thank you.

9 Our next speaker will be Tia Sutton Sysounthorn.
10 And then after that our final three speakers will be a
11 phone number ending in 050, a phone number ending in 938
12 and then Jordan Brinn.

13 Tia, you can unmute yourself and begin.

14 TIA SUTTON SYSOUNTHORN: Hello and thank you for
15 the opportunity to testify today. My name is Tia Sutton
16 Sysounthorn with the Truck and Engine Manufacturers
17 Association, or EMA, and I'd like to highlight a few
18 priority concerns from our written comments.

19 The pilot program report required SB 210 was
20 released with the proposal. Thus, issues identified
21 through the pilot program are not adequately addressed in
22 the proposal. Full consideration should be given to the
23 report and a thorough review completed prior to issuing a
24 final regulation order.

25 The proposed implementation timeline will not

1 provide adequate lead time for device manufacturers or
2 vehicle manufacturers to ensure feasibility, readiness,
3 and compatibility of remote OBD technology or to protect
4 against unintended impacts on critical vehicle systems.

5 Existing electronic controller networks have not
6 been validated against the continuous plug-in devices that
7 would be used for the program, and use of third-party
8 devices may create unexpected communication problems that
9 could lead to vehicle system and communication failures.
10 A standard industry communication protocol, such as SAE,
11 or IEEE, needs to be established prior to program
12 implementation.

13 Vehicle OBD ports are designed for short-term
14 device connections when needed, rather than continuous
15 connections. We have concerns regarding the durability of
16 the OBD port, mechanical load on the connector and
17 potential safety issues.

18 A thorough study of PEAQS and other monitoring
19 devices is needed prior to program implementation to avoid
20 situations where a significant portion of the vehicle
21 population is erroneously flagged and required to undergo
22 unnecessary repairs. The current proposal will create a
23 high likelihood for false flagging since there's no
24 underlying instantaneous emission limit or standard.

25 We support allowing fleets of all sizes to

1 request compliance extensions for extreme situations, such
2 as parts unavailability, as the ongoing chip supply crisis
3 is impacting manufacturing industries globally with no
4 regard to business size.

5 We're concerned with the use of the term
6 "compliance certificate" as it's confusing with the
7 existing term in the emissions compliance regulations.
8 And finally, the proposed data and validation requirements
9 will create duplicative requirements with existing and
10 future OBD data reporting requirements. We strongly
11 recommend streamlining or consolidating the overlapping
12 data submissions to better align the programs.

13 Thank you again for considering our comments
14 today and throughout the development process, and we look
15 forward to continued collaboration with CARB staff on the
16 necessary revisions to the proposal.

17 BOARD CLERK ESTABROOK: Thank you.

18 Phone number ending in 050, please state your
19 name for the record before you begin and then you can go
20 ahead.

21 SEAN EDGAR: Hi. Sean Edgar and I previously
22 commented on the regulations.

23 BOARD CLERK ESTABROOK: I'm sorry. I can't quite
24 hear you. Can you try -- speak a little louder and then
25 state your name again for the record.

1 SEAN EDGAR: Certainly. This is Sean Edgar and I
2 previously commented on the regulation

3 BOARD CLERK ESTABROOK: Okay. Thank you.

4 So then phone number ending in 938, you should be
5 able to unmute and begin.

6 MEREDITH ALEXANDER: Hi. This is Meredith
7 Alexander with CALSTART. Can you hear me okay?

8 BOARD CLERK ESTABROOK: Yes, we can.

9 MEREDITH ALEXANDER: Great. Thank you.

10 Good afternoon, Chair Randolph and members of the
11 Board and Senator Leyva who CALSTART worked with on this
12 bill with the Coalition for Clean Air and American Lung
13 Association.

14 I just want to congratulate staff for what is now
15 two years of hard work implementing the SB 210
16 legislation, and as we understand it listening to the
17 industry and looking for flexibility while making this
18 workable and streamlined. We just really want to
19 emphasize that this policy levels the playing field.
20 While we are really pushing our industry to transform to
21 be zero emission, we're going to have these internal
22 combustion trucks on California's roads for many years.
23 And so we just see this as a very common sense policy that
24 will clear the air while we are transitioning to
25 zero-emission trucks.

1 And just again thank all for your hard work on
2 this policy.

3 BOARD CLERK ESTABROOK: Thank you.

4 Jordan Brinn, our final commenter, you can unmute
5 and begin.

6 JORDAN BRINN: Good afternoon, Chair Randolph and
7 members of the Board. My name is Jordan Brinn speaking on
8 behalf of Natural Resources Defense Council in strong
9 support of the Inspection and Maintenance Program for
10 California's heavy-duty vehicles

11 To enhance the proposal, we urge the Board to
12 increase the reporting frequency to quarterly. Even
13 though heavy-duty vehicles only represent three percent of
14 the vehicles on California's roads, they are the number
15 one source of smog and particulate matter, which causes
16 severe health impacts, including asthma, heart attacks,
17 strokes, and lung cancer.

18 These impacts especially burden children,
19 seniors, low income communities, and communities of color.
20 And yet, these heavy polluting trucks are not subject to
21 Smog Checks like passenger cars. When Implemented, SB 210
22 will ensure that trucks operating on California roads meet
23 emission standards. Assuring these standards are met will
24 improve quality and public health more than any measure
25 CARB has adopted in the last 12 years, avoiding roughly,

1 7,500 premature deaths and thousands of hospitalizations.

2 The monetized health benefits are 18 times
3 expected costs. The goal of the I&M Program is to make
4 sure that maintenance problems are fixed and emissions
5 reduced as soon as possible. However, waiting up to six
6 months is too long to have that extra pollution afflicting
7 our communities. Vehicle owners should submit emissions
8 data quarterly to prevent months of unacceptable levels of
9 emissions.

10 Submitting data from on-board diagnostic systems
11 is a streamlined process for truck owners and is much
12 easier than the Smog Check for car owners, so quarterly
13 reporting is not onerous. CARB staff estimate that
14 implementing quarterly reporting would save an additional
15 461 lives.

16 According to an enforcement effort from CARB, CHP
17 and the DMV is essential for a successful I&M Program.
18 Freight contractors should be responsible for turning away
19 non-compliant vehicles from their facilities, which will
20 level the playing field and ensure compliance from in and
21 out-of-state vehicles.

22 The I&M Program will reduce more air pollution
23 and save more lives than anything the State has done in
24 over a decade. These reductions amplified by quarterly
25 reporting will provide an incredible opportunity to help

1 the communities disproportionately burdened by air
2 pollution. Thank you and I appreciate the opportunity to
3 comment today.

4 BOARD CLERK ESTABROOK: Thank you.

5 Chair, that concludes the commenters for this
6 item.

7 CHAIR RANDOLPH: All right. Thank you. Staff,
8 are there any issues that you wanted to raise in the
9 comments -- or that you wanted to address that were raise
10 in the comments before I close the record and we have
11 Board discussion and questions?

12 EXECUTIVE OFFICER COREY: No, nothing to add,
13 Chair.

14 CHAIR RANDOLPH: Got it. Thank you. Okay. I
15 will now close the record on this agenda item. However,
16 if it is determined that additional conforming
17 modifications are appropriate, the record will be reopened
18 and a 15-day Notice of Public Availability will be issued.
19 If the record is reopened for a 15-day comment period, the
20 public may submit written comments on the proposed
21 changes, which will be considered and responded to in the
22 final statement of reasons for the regulation. Written or
23 oral comments received after this hearing date, but before
24 a 15-day notice is issued will not be accepted as part of
25 the official record on this agenda item.

1 The Executive Officer may present the regulation
2 to the Board for further consideration if warranted, and
3 if not, the Executive Officer shall take final action to
4 adopt the regulation after addressing all appropriate
5 conforming modifications.

6 Okay. I'm going to bring it to the Board for
7 questions and discussion. Board Member Kracov has his
8 hand up.

9 BOARD MEMBER KRACOV: Thank you, Chair. Thank
10 you, Senator Leyva, author of SB 210, Coalition for Clean
11 Air, American Lung Association, and the other bill
12 sponsors, and our staff Ms. Fregoso, Mr. Kane, Mr. Enion,
13 many others for getting us to this day.

14 There's a prayer in Hebrew - I know it's late in
15 the day - its called the Shehecheyanu. It was my
16 grandfather's favorite. The Shehecheyanu prayer,
17 basically gives thanks for life for allowing us to live,
18 for being present on special occasions. My grandfather
19 was together for a beautiful sunset, for a warm day at the
20 beach. So today, we say a Shehecheyanu that we are
21 getting this rule across the finish line.

22 Breathers in Southern California have had a very
23 bad year. In the South Coast, millions have lived through
24 months of high ozone days caused by tailpipe emissions.
25 And now the past two months, we are choking on San Pedro

1 Port and goods movement worsened PM2.5 emissions so bad,
2 so catastrophic, colleagues, that we had to pull our South
3 Coast PM2.5 attainment item from today's Board agenda.
4 For our neighbors in the San Joaquin, it's been smoke,
5 smog, and stagnant PM month after month.

6 In fact, Bakersfield, saw 65 micrograms of PM2.5
7 this morning, almost double the health standard. And
8 diesel, heavy-duty trucks, are probably the largest single
9 contributor to these air quality problems in California.

10 These heavy-duty trucks alone make up 30 percent
11 of the entire NOx inventory, mobile and stationary, in the
12 South Coast and 40 percent in the San Joaquin and
13 unfortunately, these diesel trucks are not going away any
14 time soon. Even with our new Clean Fleet Rule and even
15 with our old Truck and Bus Rule, the data shows that CARB
16 expects over three-quarters of the en route heavy-duty
17 fleet still will be diesel or gasoline. And in 15 years,
18 colleagues, by 2037, more than half diesel or gasoline.

19 That, by the way, is why we need in our SIP
20 strategy next year, a retirement proposal for trucks
21 passed their useful life to get old diesels, starting with
22 the pre-OBD models, off the road faster.

23 Now -- but for today's meeting, thankfully, the
24 expected reductions of the Inspection and Maintenance
25 Program are astounding, 30 tons of NOx a day statewide in

1 2024 and up to 72 tons a day by 2031. These enormous
2 numbers show how dirty diesel trucks are. Even with
3 post-20 tech -- 10 technology and all we've done.

4 This proposal also represents CARB's main
5 emission reduction strategy in the San Joaquin,
6 single-handedly making up over half of our commitment in
7 the region. Remember, colleagues, in September, we voted
8 on the valley's PM2.5 plan. We deleted eight tons a day
9 of prior state commitments for truck turnover that's not
10 going to happen and replaced it with I&M reductions. I&M
11 is the centerpiece of our valley air strategy, period.

12 Now, I'll end soon, Chair. We know I&M is
13 necessary. We need the program to get all the emissions
14 reductions it can and we can improve this proposal. In
15 particular, staff analyzed an alternative scenario where
16 OBD trucks, that's the 2013 and newer, test four, rather
17 than two times a year. I support this.

18 Four times a year is cost effective. Compared to
19 testing twice a year, the expected costs are just an extra
20 \$0.38 a pound of NOx, \$0.38 a pound. These are the facts.
21 Imagine if all of our rules were this cost effective, we'd
22 saying a Shehecheyanu at every meeting. Four times a year
23 makes a big air quality difference. Our staff expects an
24 additional seven percent NOx reduction from this increased
25 testing. That's potentially fives times of NOx a day by

1 2030. To put that in context, the benefit from testing
2 four times a year alone surpasses the total benefits of
3 many of our other major rules. These are the facts.

4 Now, we sympathize with this it's a new program.
5 Yet, ending up four times a year is not onerous on
6 industry. Truckers will be able to automatically send
7 emissions data using telematics. I've talked to folks who
8 run the fleets who do opacity testing. Now, we heard fear
9 and exaggeration about something new today, but many will
10 purchase dongles and plug it into their truck to send the
11 data. And those smaller fleets who can't purchase their
12 own device will be able to test likely at CHP locations.
13 In-state trucks already have to go there four times a year
14 to CHP for their basic inspection terminal bit testing
15 every 90 days already. These are the facts. The author
16 supports four times a year. The bill sponsors support
17 four times a year. It's highly cost effective, it
18 improves the air, and it's not unduly onerous. We have
19 every rational basis to do so.

20 That's why I support a transition to testing the
21 OBD vehicles four times a year, an orderly transition,
22 perhaps not right away, but after we get the program off
23 the ground, perhaps the start of year two or three. With
24 our attainment problems colleagues, we cannot pass up such
25 a significant additional opportunity to reduce emissions

1 and save lives.

2 Yes, we all need our Holiday packages, and goods
3 movement is key to Pacific Rim economy. And, yes, we need
4 to make sure our economic growth is more sustainable for
5 the future. To do that, we need all hands on deck to deal
6 with dirty diesels. We need this program to be all it can
7 be.

8 I support amending the Resolution 21-29 and the
9 proposed 15-day changes for the parts availability to
10 transition to four times testing perhaps in year three for
11 the OBD vehicles.

12 Thanks again. And a shehecheyanu to everyone
13 that's making this happen today.

14 CHAIR RANDOLPH: All right. Thank you.

15 And I think you very adequately summarized the
16 benefits of going to a more frequent testing regime. And
17 I am -- I am intrigued by the proposal to phase in a
18 transition to four times a year testing in year three of
19 the regulation. So let's kind of -- I want to hear from
20 my fellow Board members, but I definitely kind of want to
21 put a pin in that and circle back to that discussion.

22 Okay. Vice Chair Berg.

23 VICE CHAIR BERG: Well, thank you very much. And
24 thank you so much to everyone. This is an important
25 regulation. I am concerned about the four times a year.

1 So maybe I'll bring some data to that. Let's have a
2 discussion.

3 I would like to understand from staff the current
4 breakdown of the million dollar truck -- the million
5 trucks that are on the road, how many of those are owned
6 by truckers three or less?

7 MSCD STRATEGIC PLANNING AND DEVELOPMENT SECTION
8 MANAGER HILL-FALKENTHAL: Just a quick clarification,
9 Sandy. You said vehicles of fleets of three vehicles or
10 less, what's the percentage?

11 VICE CHAIR BERG: Yes.

12 MSCD STRATEGIC PLANNING AND DEVELOPMENT SECTION
13 MANAGER HILL-FALKENTHAL: For in-state registered
14 vehicles, our current estimates are about 60 percent of
15 the vehicles in California would be a fleet of three
16 vehicles or less.

17 VICE CHAIR BERG: Okay. Thank you. And do we
18 have an idea on what the year, how many pre -- could you
19 just remind me on the Truck and Bus Rule, how many
20 pre-2010 do we have currently on the road? And I believe
21 that those have to be turned over in 2023?

22 MSCD STRATEGIC PLANNING AND DEVELOPMENT SECTION
23 MANAGER HILL-FALKENTHAL: We don't have exact numbers. We
24 know it's extremely few right now, because they're being
25 turned over to 2010 plus. So the only ones left are

1 either -- have a couple exemptions or specifically in the
2 low NOx region.

3 In terms of just vehicles in general, we know
4 that about 80 percent of vehicles in 2023 and beyond would
5 be OBD equipped. So 20 percent would be non-OBD, which
6 are major -- mainly 2010 to 2012.

7 VICE CHAIR BERG: Okay. Great. That is really
8 helpful. When we talk about current enforcement, I know
9 that we have had numbers to show on the stop checks for
10 CHP and CARB. Have we been checking for check engine
11 lights on those?

12 ED ASSISTANT DIVISION CHIEF QUIROS: Hi. Thi is
13 Heather Quiros, Assistant Division Chief from the
14 Enforcement Division. Yes, we have been checking for
15 check engine lights under our current Heavy-Duty Vehicle
16 Inspection Program. We do that for just about every
17 inspection and we inspect about, I want to say, 10,000
18 vehicles a year.

19 VICE CHAIR BERG: And out of those 7,000, how
20 many have been cited for check engine lights.

21 ED ASSISTANT DIVISION CHIEF QUIROS: What I'm
22 hearing is 11 to 17 percent in the pilot program were --

23 VICE CHAIR BERG: I'm sorry. I didn't hear.

24 ED ASSISTANT DIVISION CHIEF QUIROS: Eleven to 17
25 percent during our pilot program were cited for the

1 check -- or identified as having the check engine light.

2 VICE CHAIR BERG: Okay. And then following up on
3 those what is the procedure currently to get those
4 repaired and violations cleared?

5 ED ASSISTANT DIVISION CHIEF QUIROS: They do need
6 to take their vehicle in, figure out what's causing that
7 issue through a repair shop, get that -- get that vehicle
8 repaired and then submit documentation to us to show that
9 that vehicle has been repaired and that that engine light
10 has been cleared.

11 VICE CHAIR BERG: Okay. Great. And out of that
12 7 to -- 11 to 17 percent, how many of those get resolved
13 versus you have to run around and chase them?

14 ED ASSISTANT DIVISION CHIEF QUIROS: I don't have
15 a specific number for that particular percentage, but what
16 I will say is we do have currently maybe about --
17 generally for our citations maybe about half of them we do
18 have to follow up in a different way to get them to
19 resolve.

20 VICE CHAIR BERG: Okay. Kind of extrapolating
21 this, if we are then going to twice a year, which will be
22 the OBD we're -- oh, going back, just so that I understand
23 on slide number 13, the non-OBD vehicles, will they also
24 be now doing smoke tests twice a year?

25 That's great. And so -- and then this -- oh, the

1 non-OBD, if they don't pass the smoke test, that also will
2 be tied to their registration.

3 ED ASSISTANT DIVISION CHIEF QUIROS: That's also
4 right.

5 VICE CHAIR BERG: Okay. That's terrific too.
6 And so kind of extrapolating out this, what do you think
7 under twice a year, how many vehicles are not going to
8 pass and that we're going to just be -- certainly, it's
9 very important to have these vehicles on the road, only if
10 they're operating properly. There's no question about
11 that, but how many vehicles are we talking about now that
12 going up from this 11 to -- so you're looking at 700 to
13 850 maybe, trucks, and this is in a year. So what are we
14 looking at now from just a volume?

15 MSCD MOBILE SOURCE REGULATORY BRANCH CHIEF
16 HEROY-ROGALSKI: I think we can dig that out. It's in our
17 staff report, but we'll have to grab a minute to give you
18 the exact number. We did have the statistic you requested
19 earlier for the amount of pre-2010. It's about five
20 percent of the vehicles in 2023 which will be pre-2010.
21 And Ms. Berg, you're looking for like the number of trucks
22 that you think would be failing like each year under
23 staff's proposal. Is that kind of what you're trying to
24 get at? Just to --

25 VICE CHAIR BERG: Well, I'm just trying to

1 understand. This is a big program. And it would be great
2 if we could test monthly, we would save more lives. But
3 if it's only going to look good on paper, because the
4 volume of trucks that we're now going to be addressing, I
5 just want the Board to understand that and should we try
6 to get this off the ground as is at two times a year and
7 make that very successful, get that back data back. And
8 if we need to go to four times a year, we'll have the
9 basis, the foundation to do it properly.

10 If we just get overwhelmed with information and
11 can't resolve the truck information that we get, then
12 again, it looks good on paper, but the reality is is we're
13 not fixing the trucks. We're not changing things the way
14 we intended to and that's my real basis of my concern.

15 I support more regulation to save lives, but I
16 support stronger regulation that we truly can enforce and
17 make that changes. And that's what I'm truly concerned
18 about. We're talking about here, out of a million trucks,
19 600,000 trucks are owned by small business, and by small
20 business we're talking one to three trucks. And people
21 that don't repair their trucks, it isn't because they want
22 to drive a truck that's not working properly, it's because
23 they don't have the resources to do it. And so we do need
24 to be expeditious in really trying to identify and have
25 then the authority to take these trucks off the road. And

1 I'd like clarification. If somebody keeps failing, do we
2 have the ability to take these trucks off the road?

3 MSCD MOBILE SOURCE REGULATORY BRANCH CHIEF

4 HEROY-ROGALSKI: I'm just so excited, because I have a
5 statistic to share.

6 (Laughter.)

7 VICE CHAIR BERG: Thank you, Kim.

8 MSCD MOBILE SOURCE REGULATORY BRANCH CHIEF

9 HEROY-ROGALSKI: Slow down. This is exciting. It's easy
10 to talk fast.

11 Okay. You had asked for -- to get an idea of the
12 number of trucks that we think would fail under staff's
13 proposals with the two times per year testing. And Phuong
14 Ho from our staff pulled that number out. It's about
15 145,000 trucks we think would fail in the first year.

16 CHAIR RANDOLPH: Can I --

17 VICE CHAIR BERG: And so that's kind of a lot of
18 trucks to track down.

19 CHAIR RANDOLPH: Can I -- can I just -- sorry. I
20 don't meant to cut you off, but I just wanted to sort of
21 maybe put a kind of circle around what we're talking
22 about, which is, you know, OBD trucks and not going to
23 four years right away, but instead doing it three years
24 after the regulation goes into effect with a goal of kind
25 of getting the data -- you know, making sure that the

1 systems are in place. And kind of like the discussion we
2 had with our last Board item, going ahead putting that
3 goal in place to have the four times a year, in three
4 years after the regulations goes into effect, and if, you
5 know, during that three-year period as the regulation is
6 being implemented, there might be an opportunity for staff
7 to come back to us and say, oh, my gosh, this is crazy.
8 Like, there's no way we can phase it in and ask for more
9 direction from us. But we would set ourselves on a path
10 of going to four years without having to come back to the
11 Board.

12 VICE CHAIR BERG: I would be in favor of that.
13 I'm also hoping staff might come back and say, oh, my
14 gosh, it's better than we thought, because many
15 manufacturers realize that, you know, if newer trucks are
16 failing, which I was so surprised to hear we were going to
17 go for this testing with -- immediately with all model
18 year trucks. And so that tells me we have a real concern
19 about brand new trucks won't even make it 12 months. And
20 that certainly isn't the drivers or the companies. That's
21 a truck problem.

22 So I just think we have so much data to learn and
23 this is great information, so I would really love to see
24 that the staff has the time to truly analyze the new data
25 we're going to get and bring back what should we be doing,

1 so that this program truly is effective, and we're truly
2 repairing the trucks, and those people that can no longer
3 meet the threshold of having a well-running truck on the
4 road, they're going to need to do something else. I mean,
5 that is just the reality.

6 And so that -- I would support that, Madam Chair.

7 And then also I'm curious though as to why
8 agricultural vehicles, on the flip side, are only one
9 year.

10 SENATOR LEYVA: That was a long negotiation. I
11 think -- sorry about that. That was a long negotiation
12 and there was a lot of back and forth about only using the
13 vehicles at one time during the year, because they only
14 use them during harvest time. And so what we agreed to
15 was one time a year, and that they had 60 days to fix it.
16 We wanted 30 days. We finally landed on 60 to get the
17 bill passed.

18 VICE CHAIR BERG: So again, if we find out
19 through the data, however, that it's -- they're more
20 polluting, I think that would be good information also to
21 come back, because they do operate in those very
22 vulnerable communities. And so really I want to make sure
23 staff has the resources, so really need to speak up that
24 we have the resources to do the data collecting, to do the
25 data analysis. Enforcement has added resources to quickly

1 get proof of a repair and get that over to the DMV, and
2 that you can bring back to us truly a sense of what
3 additional, or if we're right on track, I will be there
4 celebrating with you.

5 Thank you very much.

6 CHAIR RANDOLPH: Thank you.

7 Dr. Balmes.

8 BOARD MEMBER BALMES: Thank you, Madam Chair. I
9 will try to be brief, because most of what I wanted to say
10 has already been said. I want to start off with thanking
11 Senator Leyva for her persistence, including having to
12 deal with the fact that California agriculture always
13 seems to get an exception. That's a testimony to her
14 persistence and negotiating skill, I'm sure.

15 SENATOR LEYVA: And a little luck.

16 BOARD MEMBER BALMES: Okay. I also want to thank
17 Bill Magavern, to Coalition of Clean Air, Joe Lyou, the
18 American Lung Association for their hard work in
19 supporting Senator Leyva's Bill and the staff. We're
20 always congratulating the staff on the hard work, but you
21 guys really did a good job this time.

22 And I think the reason that we had to have this
23 regulation is just -- you know, it's right there on slide
24 28, statewide lifetime health benefits. Forget about the
25 dollars, which are huge. You know, the amount of deaths,

1 hospitalizations, emergency room visits. This is probably
2 an under estimate, if anything.

3 And this to me is, as several people have said,
4 one of the most significant regulations that has been
5 before me since I've been on the board really since the
6 Heavy-Duty Truck and Bus Rule in the first place in 2008.
7 So I'm very supportive. I like what Chair Randolph just
8 suggested in response to Vice Chair Berg about trying to
9 phase-in -- having an aspirational goal of four times a
10 career, but not start with that now, with all due respect
11 to Senator Leyva and Mr. Kracov. You know, this was a
12 heavy lift. We should do it right and then we can see if
13 we can pull off four times a year.

14 So I'm just very supportive and happy to be here
15 for this, but I'm going to have to leave early before the
16 vote, so I don't know if I can have proxy --

17 (Laughter.)

18 BOARD MEMBER BALMES: -- but I'm supportive of
19 this. I don't think we need any further quorum.

20 CHAIR RANDOLPH: Okay. Thank you. Board Member
21 De La Torre, did you want to comment?

22 BOARD MEMBER DE LA TORRE: Thank you. Thank you
23 staff. Thank you, advocates, for pushing this. Thank
24 you, Senator Leyva. This is a long time coming in so many
25 ways. And as I think Bill Magavern said, you know, when

1 you tell people that this is not already happening, that
2 they can't believe it. So we're doing it. Reality will
3 conform with perception for once, and we'll make it
4 happen. And I'm just going to say what I say all the
5 time, heavy-duty trucks are about six percent of our
6 greenhouse gas emissions - diesel heavy-duty trucks - in
7 California and about 60 percent of the toxic risk of air
8 pollution.

9 We have to keep at it with diesel. We have to
10 keep regulating, watching, enforcing diesel in California.
11 It is -- it's a -- it's a twofer for us to be able to do
12 this work. And so I'm very supportive of this effort.

13 Thank you.

14 CHAIR RANDOLPH: All right. Board Member
15 Takvorian, then Dr. Sperling.

16 BOARD MEMBER TAKVORIAN: Thank you, Chair.
17 Thanks to Senator Leyva. I know that you've received a
18 lot of that today, but honestly this was such a heavy lift
19 and we're all so very, very appreciative of your willing
20 to be -- your willingness to be so persistent. It's the
21 sign of a really great advocate. So thank you for being
22 with us on that.

23 I agree with Dr. Balmes, the health benefits are
24 undeniable here and the current conditions are really
25 unacceptable. As Board Member De La Torre has said, we

1 have to be consistent here. We have to be persistent. We
2 have to keep chipping away at this. And this is a whole
3 lot more than a chip, as the staff who deserve lots of
4 credit for this -- for this research and good development
5 have told us. And we're talking about a huge reduction in
6 health risk. So I do agree with Board Member Kracov in
7 that I think we should increase the emission reporting to
8 more than twice a year. And I do agree that it should be
9 in a phased-in program. But it seems like with the owners
10 of vehicles with OBD, they could be providing that data
11 regularly with no extra burden. And it's really
12 concerning to me, if I understood staff's response to Vice
13 Chair Berg, that 145,000 trucks per year would fail.

14 That's -- yes, that's a lot of trucks. It's a
15 lot of trucks that are on the road that need repair. So
16 I'm worried about that and I want to catch them as soon as
17 possible.

18 So, Chair, I appreciate your idea that we can
19 phase this in and I would support that. I don't know if
20 three years is the right amount of time, but I do agree
21 that we need to get to it quicker than just twice a year.
22 So I would support that.

23 Thank you.

24 CHAIR RANDOLPH: Thank you.

25 Dr. Sperling.

1 BOARD MEMBER SPERLING: So Senator Leyva is
2 sitting next to me and she's been getting lots of praise,
3 so I'm going to -- who I want to additionally praise more
4 than is normal is what Dr. Balmes was saying is the staff.
5 I think this is one of the most well conceived, well
6 designed regulatory programs that I've seen here. It's
7 really impressive. It's -- you know, it takes and builds
8 into it third parties -- the role of third parties,
9 disadvantaged communities, the remote testing. There's a
10 lot of features of this that really make it a really
11 strong program.

12 And it also reminds me that the reason why this
13 program can even exist in the way it does and be effective
14 is because of CARB leadership with OBD. It was CARB going
15 back to, you know, the 80s and 90s who put so much effort
16 into developing the whole concept, and the requirements,
17 and working with industry. CARB was the leader globally
18 on doing that. And, you know, this is where -- this is
19 one of the many benefits that we've gotten from that
20 leadership going back 30 years.

21 And so, you know, one of the points is this is
22 real -- this program is real leadership and this is the
23 kind of program that should be imitated around the
24 country, around the world. So this is another example
25 that -- where we should be very proud, you know, that we

1 are showing global leadership in air pollution reduction.

2 And I would also note that the existence of our
3 new Riverside Southern California facility is also going
4 to make this much more effective, because now we're going
5 to have the capabilities to actually figure out what's
6 going on with -- when there is noncompliance and when
7 there are problems, because I know there's been suspicions
8 all along that there's, let's say, different levels of
9 cheating, different problems with malfunctions that we
10 haven't been able to really track down.

11 So it brings me to a question, and that is I
12 think there's three categories of problems here, one is
13 cheating by the manufacturers, you know, where they're
14 kind of the Volkswagen style cheating, you know, changing,
15 designing the operational characteristics, the engine, to
16 anticipate the tests and being able to avoid -- you know,
17 get around the test. There's the malfunctioning of the
18 technology itself for some reason or another, and then
19 there's tampering

20 So I'd like to -- you know, so to understand --
21 I'm -- I am getting to this four times a year question too
22 on that point. And I was wondering if staff has kind of a
23 hypothesis, if not some evidence of how much of the
24 problem is coming from each of those three categories? Do
25 we have a sense of that? Do we know or even suspect?

1 MSCD STRATEGIC PLANNING AND DEVELOPMENT SECTION

2 MANAGER HILL-FALKENTHAL: So based on some of the data
3 that we have so far and our field studies, for example,
4 Ms. Berg brought up the fact that some of even the newer
5 vehicles are showing those on, right now in the first
6 year, it's showing about five percent of first-year
7 vehicles have MIL on. I think anecdotally you could --
8 she was mentioning, there are potentially some
9 manufacturer issues there. Do we know how much? Not yet.
10 We don't necessarily have the data that she was alluding.
11 Once we get the data, we can start analyzing. We can
12 start better assessing that breakdown of exactly what is
13 the malmaintenance from the fleets, what is the potential
14 OEM issues, and potentially what is tampering.

15 BOARD MEMBER SPERLING: Okay. What about the
16 category of cheating? I mean, not cheating, excuse me,
17 tampering. So in other words, that's the only place where
18 the truck owner and the driver that are -- have some
19 responsibility, right?

20 MSCD STRATEGIC PLANNING AND DEVELOPMENT SECTION

21 MANAGER HILL-FALKENTHAL: Well, malmaintenance would also
22 be the owner's responsibility as well.

23 BOARD MEMBER SPERLING: And -- yeah. Okay. So
24 how much of it do we think might come from that?

25 MSCD STRATEGIC PLANNING AND DEVELOPMENT SECTION

1 MANAGER HILL-FALKENTHAL: One second.

2 ED SPECIALIZED FLEET ENFORCEMENT SECTION MANAGER

3 HOWARD: Hi. This is Cody Howard. So I'm in the
4 Enforcement Division.

5 We don't have specific numbers on tampering or
6 malmaintenance number from heavy-duty trucks. That being
7 said, we know it's happening. We have gone out and found
8 that's. And it's easy to go on the Internet and find a
9 DPF delete kit or a -- you know, how to core your DPF out
10 or anything like that. And so we have brought enforcement
11 activity against those vehicles.

12 And even under the light-duty program now with
13 years and years of experience, people are out there
14 doing -- tampering of their vehicles. And they're only
15 going to take that experience in the light-duty sector and
16 utilize that in the heavy-duty sector. So it's not
17 insignificant. It's not every vehicle out there either,
18 so I would say it's under 10 percent.

19 BOARD MEMBER SPERLING: Well, the good news here
20 is we're going to find out, right?

21 (Laughter.)

22 ED SPECIALIZED FLEET ENFORCEMENT SECTION MANAGER

23 HOWARD: Yeah, that's --

24 BOARD MEMBER SPERLING: And thanks to Annette
25 down there in Riverside, we're going to really find out

1 what's going on. So it kind of gives me pause on this
2 whole question about how many times a year. It's like
3 when we don't even really know what the problems are and
4 who's responsible. So, I mean, I'm kind of of the mind
5 that let's follow the staff recommendation. Let's leave
6 it the way it is, but re -- you know, say we want an
7 assessment, an analysis done, you know, in -- whenever
8 that would be appropriate, four -- three, four years, and
9 then come back to us and we make a determination whether
10 it should be every month, four times a year, maybe once a
11 year. You know, when we -- let's base this a little bit
12 more on science and data than just on gut reactions. So
13 that's my suggestion.

14 CHAIR RANDOLPH: All right. Thank you.

15 Dr. Pacheco-Werner.

16 BOARD MEMBER PACHECO-WERNER: Thank you and thank
17 you to staff and to all -- everyone that has helped get us
18 here. Indeed, it is a great day in the San Joaquin Valley
19 for this and for our air. And it's important to note that
20 if you look up and down the San Joaquin Valley, those most
21 impacted by diesel particulate are those that have hist --
22 in historically racially segregated areas. And the
23 legacies of those decisions of the past and current
24 land-use decisions continue to have an impact on the
25 people of color in California. And this regulation is a

1 step in remediating that history and giving those families
2 and children a chance to have better lives and better
3 health outcomes.

4 I am supportive of the four times a year. And I
5 also want to note that if it has to remain the same, as
6 staff proposed right now, like Dr. Sperling, I'd like to
7 see a more concrete understanding of what the timeline to
8 revisit that would look like.

9 Thank you.

10 CHAIR RANDOLPH: Okay. I don't see any other
11 Board members comments. So since we have a difference of
12 opinion on the question of the four times a year, I would
13 like to suggest that someone who is supportive of the idea
14 of four times a year with a three-year phase-in make a
15 motion to amend the resolution and then we can vote on
16 that and then we can vote on the item as a whole.

17 BOARD MEMBER KRACOV: Yeah, this is Kracov. I'll
18 so move and, you know, would suggest this is not -- with
19 all due respect to Dr. Sperling, this is not a gut
20 reaction. The data for this is from the same modeling for
21 the rest of the staff report and is more than a rational
22 basis based on the same data. And the same models to show
23 that this is worthwhile and is going or improve air
24 quality in my air district and others throughout the state
25 substantially. So I so move.

1 Thank you.

2 BOARD MEMBER HURT: I'll second.

3 CHAIR RANDOLPH: Okay. So, can the Clerk please
4 take a vote on that motion.

5 VICE CHAIR BERG: I'm sorry. I'm not clear on
6 the motion. Is this for starting the four times a year
7 right away?

8 CHAIR RANDOLPH: No. It's starting four times a
9 year beginning three years from the effective date of the
10 regulation.

11 VICE CHAIR BERG: Okay. Thank you.

12 BOARD MEMBER SPERLING: It's --

13 CHAIR RANDOLPH: The four-times-a-year
14 requirement would be phased in starting three years from
15 the effective date of the regulation. So to give staff
16 time to get the program up and going and understand any
17 potential issues, and then it would not have to come back
18 to the Board.

19 If staff determines, for whatever reason, that it
20 would be problematic, they could come back to the Board
21 and ask for further guidance, but it would set is on a
22 path to do four times a year, three years after the
23 regulation goes into effect.

24 Okay. Clerk, can you please call the roll.

25 BOARD CLERK ESTABROOK: Dr. Balmes?

1 Mr. De La Torre?

2 BOARD MEMBER DE LA TORRE: Aye.

3 BOARD CLERK ESTABROOK: Mr. Eisenhut?
4 Supervisor Fletcher?

5 BOARD MEMBER FLETCHER: Fletcher, aye.

6 BOARD CLERK ESTABROOK: Senator Florez

7 BOARD MEMBER FLOREZ: Florez, aye.

8 BOARD CLERK ESTABROOK: Ms. Hurt?

9 BOARD MEMBER HURT: Aye

10 BOARD CLERK ESTABROOK: Mr. Kracov?

11 BOARD MEMBER KRACOV: Yes.

12 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

13 BOARD MEMBER PACHECO-WERNER: Yes.

14 BOARD CLERK ESTABROOK: Mrs. Riordan?

15 BOARD MEMBER RIORDAN: Aye.

16 BOARD CLERK ESTABROOK: Supervisor Serna?

17 BOARD MEMBER SERNA: Aye.

18 BOARD CLERK ESTABROOK: Professor Sperling?

19 BOARD MEMBER SPERLING: No.

20 BOARD CLERK ESTABROOK: Ms. Takvorian?

21 BOARD MEMBER TAKVORIAN: Yes.

22 BOARD CLERK ESTABROOK: Vice Chair Berg?

23 VICE CHAIR BERG: No.

24 BOARD CLERK ESTABROOK: Chair Randolph?

25 CHAIR RANDOLPH: Yes.

1 BOARD CLERK ESTABROOK: Madam Chair, the motion
2 passes.

3 CHAIR RANDOLPH: Okay. All right. Now, I'm
4 going to call for a motion on the regulation as -- the
5 resolution as amended with a 15-day change that would
6 provide for four times a year, that would phase in three
7 years after the regulation goes into effect.

8 BOARD MEMBER DE LA TORRE: So moved, De La Torre.

9 VICE CHAIR BERG: Second, Berg.

10 BOARD CLERK ESTABROOK: Dr. Balmes?

11 Mr. De La Torre?

12 BOARD MEMBER DE LA TORRE: Aye.

13 BOARD CLERK ESTABROOK: Mr. Eisenhut?

14 Supervisor Fletcher?

15 BOARD MEMBER FLETCHER: Fletcher, aye.

16 BOARD CLERK ESTABROOK: Senator Florez?

17 BOARD MEMBER FLOREZ: Not voting.

18 BOARD CLERK ESTABROOK: Ms. Hurt?

19 BOARD MEMBER HURT: Abstain.

20 BOARD CLERK ESTABROOK: Mr. Kracov?

21 BOARD MEMBER KRACOV: Yes.

22 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

23 BOARD MEMBER PACHECO-WERNER: Yes.

24 BOARD CLERK ESTABROOK: Mrs. Riordan?

25 BOARD MEMBER RIORDAN: Aye.

1 BOARD CLERK ESTABROOK: Supervisor Serna?

2 BOARD MEMBER SERNA: Aye.

3 BOARD CLERK ESTABROOK: Professor Sperling?

4 BOARD MEMBER SPERLING: Aye.

5 BOARD CLERK ESTABROOK: Ms. Takvorian?

6 BOARD MEMBER TAKVORIAN: Yes.

7 BOARD CLERK ESTABROOK: Vice Chair Berg?

8 VICE CHAIR BERG: Yes.

9 BOARD CLERK ESTABROOK: Chair Randolph?

10 CHAIR RANDOLPH: Yes.

11 BOARD CLERK ESTABROOK: Okay. Madam Chair, the
12 motion passes.

13 CHAIR RANDOLPH: All right. Thank you. Senator
14 Leyva is celebrating --

15 BOARD MEMBER KRACOV: Shehecheyanu.

16 CHAIR RANDOLPH: -- at the end of the dais here.

17 Well, this truly has been a momentous day here at
18 CARB and I am just -- I want to thank all the staff that
19 worked on Heavy-Duty I&M and then also the SORE
20 Regulation. I mean, they're both historic rulemakings
21 that really highlight the innovative work of this agency
22 and our cooperative relationship with the Legislature.
23 And it just highlights all we can do when we really work
24 together and accomplish a lot. So thank you for that.

25 And we now need to do open public comment.

1 BOARD CLERK ESTABROOK: Chair, there is not
2 currently anyone with their hand raised for open comment.
3 If you would like to speak for open comment period, please
4 raise your hand in Zoom or dial star nine.

5 Okay. Todd Campbell, you can unmute and begin.

6 TODD CAMPBELL: I just want to thank you guys for
7 like doing tremendous work today. Passing that measure
8 was incredibly important. And again, huge kudos to Connie
9 Leyva and Bill, you know, Magavern at Coalition for Clean
10 Air. I just want to say that's huge for us. Like, you
11 know, we, in Southern California, really want to have
12 reductions in the near term. And this goes a long way.
13 And I just want to say thank you, thank you, thank you,
14 thank you today.

15 BOARD CLERK ESTABROOK: Thank you.

16 A phone number ending in 050. You can dial star
17 six to unmute.

18 SEAN EDGAR: Hi. Can you hear me?

19 BOARD CLERK ESTABROOK: Yes, we can.

20 SEAN EDGAR: Great. Thank you. This is Sean
21 Edgar, the Director of Clean Fleets and just wanted to
22 take a few minutes and talk about the last item referenced
23 dealing with dirty diesel. And just in the theme of
24 dealing with dirty diesel, I've been privileged for the
25 last 21 years to work on just about every mobile source

1 strategy that the Board has done.

2 And just to maybe stimulate Vice Chair Berg's
3 discussion about leadership and the role that the Board
4 should play, you heard me in past testimony and during our
5 October meeting we had a very spirited discussion about
6 the moon shot and the Manhattan Project type approach.
7 And I'll just take a few minutes to fill in a few of the
8 bullets that I would like to work with the Board and its
9 staff.

10 First of all, the number of diesel vehicles that
11 will be expiring under the Truck and Bus Regulation, that
12 number is 40,000. So over the next year and a half, the
13 owners of 40,000 diesel vehicles that are timing out under
14 Truck and Bus, many of those are small businesses.
15 They'll be making a purchase decision. And they'll
16 probably make a purchase decision to get into newer
17 compliant diesel. And we know that that pathway is going
18 to be very expensive, especially for small businesses in
19 light of the Heavy-Duty Omnibus and the new warranty
20 requirements. And so that's choice one from the consumer
21 perspective.

22 We also know that those consumers could today
23 make the decision to buy a cleaner natural gas vehicle.
24 But due to the market signals that the Board is putting
25 out, that's not a very good choice right now based on

1 where the Advanced Clean Fleets proposal is.

2 And I'll just wrap up this open comment just to
3 say, we had a infrastructure workshop dealing with costs.
4 And that was great, the Board staff put that together, but
5 that recent infrastructure workshop revealed the
6 crawl-walk-run strategy, and the decades, and tens of
7 billions of dollars that's it going to take just to get
8 ZEVs off the ground.

9 And so going back to how we can all work together
10 especially for small businesses, we understand that you
11 want to deal with dirty diesel and we understand the
12 just -- would like you to understand from the small
13 business perspective that our members are making hard
14 choices today to get into the cleanest vehicles available.
15 And the market signal should be buy the cleanest diesel
16 available or if you can stretch yourself and buy the
17 cleanest natural gas diesel available, because ZEVs are
18 going to take a much longer glide path. And that's going
19 to really take hard coordination, billion of dollars, and
20 decades for us all to work together.

21 So that's just a little word and my commitment to
22 work with you, but we can't lose sight of it's going to
23 take a lot more than some Zoom meetings. And hopefully
24 we'll be able to get back all in the same room and hash
25 these details out, but we can't lose sight of the small

1 business community needs to have advocacy. They need to
2 have assistance, they need to have support, and they need
3 to draw a pathway. And simply wishing it to be so,
4 doesn't make it so.

5 So looking forward to working with you on these
6 small businesses related fleet choices in the future.

7 BOARD CLERK ESTABROOK: Thank you.

8 Chair, the concludes the commenters.

9 CHAIR RANDOLPH: All right. Thank you. That
10 concludes our last CARB Board meeting for 2021.

11 So Happy New Year, everyone. We'll see you next
12 year.

13 (Thereupon the Air Resources Board meeting
14 adjourned at 4:53 p.m.)
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CERTIFICATE OF REPORTER

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 11th day of January, 2022.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063