

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

ZOOM PLATFORM

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
BYRON SHER AUDITORIUM
1001 I STREET
SACRAMENTO, CALIFORNIA

THURSDAY, OCTOBER 23, 2025

9:09 A.M.

JAMES F. PETERS, CSR
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APPEARANCES

BOARD MEMBERS:

Lauren Sanchez, Chair

John Balmes, MD

Hector De La Torre

John Eisenhut

Dean Florez (Remote)

Todd Gloria (Remote)

Eric Guerra

Lynda Hopkins (Remote)

Assemblymember Corey A. Jackson

Patricia Lock Dawson

Dawn Ortiz-Legg (Remote)

Tania Pacheco-Werner, PhD (Remote)

Cliff Rechtschaffen

Susan Shaheen, PhD

Senator Henry Stern (Remote)

Diane Takvorian

STAFF:

Steve Cliff, PhD, Executive Officer

Courtney Smith, Principal Deputy Executive Officer

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

Shannon Dilley, Chief Counsel

APPEARANCES CONTINUED

STAFF:

Chanell Fletcher, Deputy Executive Officer, Equity,
Communities and Environmental Justice

Christopher Grundler, Deputy Executive Officer, Mobile
Sources and Incentives

Edna Murphy, Deputy Executive Officer, Internal Operations

Rajinder Sahota, Deputy Executive Officer, Climate Change
and Research

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and Research

Courtney Smith, Principal Deputy Executive Officer

Michelle Buffington, PhD, Division Chief, Mobile Source
Control Division(MSCD)

Tiffany Canales, Air Resources Supervisor, Advanced
On-Road Strategies Section, MSCD

Joshua Cunningham, Branch Chief, Advanced Clean Cars
Branch, Sustainable Transportation and Communities
Division(STCD)

Linda Echegaray, Senior Attorney, Legal Office

Ariel Fideldy, Branch Chief, Air Quality Planning Branch,
Air Quality Planning and Science Division(AQPSD)

Benjamin Gramajo-Enzensperger, Air Pollution Specialist,
Advanced On-Road Strategies Section, MSCD

Jorn Herner, PhD, Air Resources Supervisor II, Research
Division(RD)

Jason Hill-Falkenthal, Assistant Division Chief, MSCD

Brandon Kline, Senior Attorney, Legal Office

Matthew Lakin, Division Chief, AQPSD

Victor Mendiola, Air Pollution Specialist, South Coast Air
Quality Planning Section, AQPSD

APPEARANCES CONTINUED

STAFF:

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Elizabeth Scheehle, Division Chief, RD

Annalisa Schilla, Assistant Division Chief, (STCD)

Jason Schroeder, PhD, Air Resources Supervisor I, RD

Daniel Whitney, Senior Attorney, Legal Office

Emily Yang, PhD, Air Pollution Specialist, Integrated
Measurements of Air Pollution Section, RD

Steve Zelinka, Air Resources Engineer I, RD

ALSO PRESENT:

Cesar Aguirre, Central California Environmental Justice
Network

Gustavo Aguirre, Jr., Central California Asthma
Collaborative, Central California Environmental Justice
Network

Sarah Aird, Californians for Pesticide Reform

Fariya Ali, Pacific Gas and Electric

Gloria Alonso, Little Manila Rising

Christian Bisher, Central California Environmental Justice
Network

Adam Browning, Forum Mobility

Gavin Bruce, Valley Improvement Projects

Kimberly Burr

Todd Campbell, Clean Energy

Brianda Castro, Central California Asthma Collaborative

APPEARANCES CONTINUED

STAFF:

Matt Coldwell, California Public Utilities Commission

Sarah Deslauriers, California Association of Sanitation Agencies

Riley Duren, Carbon Mapper

Tyson Eckerle, Senior Advisory, Governor's Office of Business and Economic Development

Evan Edgar, California Compost Coalition

Ian Faloon, PhD, University of California, Davis

James Hacker, Undersecretary, California State Transportation Agency

Jamie Hall, EV Realty

Larry Hanson, Forest Unlimited

Jennifer Kalafut, Deputy Director, California Energy Commission

Ryan Kenny, Clean Energy

Bianca Lopez, Valley Improvement Projects

Bill Magavern, Coalition for Clean Air

Jasmin Martinez, Central Valley Air Quality Coalition

Lisa McGhee, Tom's Truck Center

Brent Newell, Central Valley Air Quality Coalition

Laura Plascencia, Valley Improvement Projects

Viviana Prado, Leadership Counsel for Justice and Accountability

Maria Ramos, Valley Improvement Projects

Laura Renger, California Electric Transportation Coalition

APPEARANCES CONTINUED

STAFF:

Nicole Rice, California Renewable Transportation Alliance

Mark Rose, National Parks Conservation Association

Mariela Ruacho, American Lung Association

Maria Ruiz, Central California Asthma Collaborative

Byanka Santoyo, Center on Race, Poverty, and the
Environment

Elizabeth Szulc, CALSTART

Jane Sellen, Californians for Pesticide Reform

Ariella Serrano, Little Manila Rising

Tyler Szeto, Earthjustice

Tom Van Heeke, Rivian

Adria Vidales, Little Manila Rising

Aoly Vilchez, Valley Improvement Projects

Robert Wittkamm

Kai Wong, Little Manila Rising

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PROCEEDINGS

CHAIR SANCHEZ: Good morning. The October 23, 2025 public meeting of the California Air Resources Board will come to order.

Board Clerk, would you please call the roll.

BOARD CLERK FRENCH: Dr. Balmes.

BOARD MEMBER BALMES: Here

BOARD CLERK FRENCH: Mr. De La Torre.

BOARD MEMBER DE LA TORRE: Here.

BOARD CLERK FRENCH: Mr. Eisenhut.

BOARD MEMBER EISENHUT: Here.

BOARD CLERK FRENCH: Senator Florez?

BOARD MEMBER FLOREZ: Senator Florez here.

BOARD CLERK FRENCH: Mayor Gloria.

BOARD MEMBER GLORIA: Here.

BOARD CLERK FRENCH: Councilman Guerra.

BOARD MEMBER GUERRA: Here.

BOARD CLERK FRENCH: Supervisor Hopkins.

BOARD MEMBER HOPKINS: Present.

BOARD CLERK FRENCH: Assemblymember Jackson.

Mayor Lock Dawson.

BOARD MEMBER LOCK DAWSON: Here.

BOARD CLERK FRENCH: Supervisor Ortiz-Legg.

BOARD MEMBER ORTIZ-LEGG: Here.

BOARD CLERK FRENCH: Dr. Pacheco-Werner.

1 BOARD MEMBER PACHECO-WERNER: Here.

2 BOARD CLERK FRENCH: Mr. Rechtschaffen.

3 BOARD MEMBER RECHTSCHAFFEN: Here.

4 BOARD CLERK FRENCH: Dr. Shaheen.

5 BOARD MEMBER SHAHEEN: Here.

6 BOARD CLERK FRENCH: Senator Stern.

7 SENATOR STERN: Here.

8 BOARD CLERK FRENCH: Ms. Takvorian.

9 BOARD MEMBER TAKVORIAN: Here.

10 BOARD CLERK FRENCH: Chair Sanchez.

11 CHAIR SANCHEZ: Here.

12 BOARD CLERK FRENCH: Madam Chair, we have a
13 quorum.

14 CHAIR SANCHEZ: Wonderful. Good morning. Good
15 morning. I will cover a few housekeeping items before we
16 get started. We are conducting today's meeting in person
17 as well as offering remote options for public
18 participation, both by phone and on Zoom. Anyone who
19 wishes to testify in person should fill out a
20 request-to-speak card available in the foyer outside the
21 Boardroom. Please turn it into a Board assistant prior to
22 commencement of the item. If you are participating
23 remotely, you will raise your hand in Zoom or dial star
24 nine if calling in by phone. The clerk will provide
25 further details regarding how public participation will

1 work in a moment.

2 For safety reasons, please note the emergency
3 exit to the rear of the room through the foyer. In the
4 event of a fire alarm, we are required to evacuate this
5 room immediately and go down the stairs to the lobby and
6 out of the building. When the "All-Clear" signal is
7 given, we will return to the auditorium and resume the
8 hearing.

9 A closed captioning feature is available for
10 those of you joining us in the Zoom environment. In order
11 to turn on subtitles, please look for a button labeled
12 "CC" at the bottom of the Zoom window as shown in the
13 example on the screen now. I would like to take this
14 opportunity to remind everyone to speak clearly and from a
15 quiet location, whether you are joining us on Zoom or
16 calling in by phone.

17 Interpretation services will be provided today in
18 Spanish for both in-person and Zoom attendees. If you are
19 joining us using Zoom, there is a button labeled
20 "Interpretation" on the Zoom screen. Click on that
21 "Interpretation" button and select Spanish to hear the
22 meeting in Spanish. If you are joining us in here in
23 person and would like to listen to the meeting in Spanish,
24 please speak to a Board assistant and they will provide
25 you with further instructions. I want to remind all of

1 our commenters to speak slowly and pause intermittently to
2 allow the interpreters the opportunity to accurately
3 interpret your comments.

4 THE INTERPRETER: Good morning, Madam Chair, and
5 Board members.

6 (Interpreter translated in Spanish).

7 THE INTERPRETER: Thank you.

8 CHAIR SANCHEZ: I will now ask the Board Clerk to
9 provide more details regarding public participation.

10 BOARD CLERK FRENCH: Thank you, Chair Sanchez.

11 Good morning, everyone. I will provide
12 additional information on public participation for today's
13 meeting. We will first call on in-person commenters who
14 have turned in a "Request-to-Speak" card and then call
15 commenters who are joining us remotely. If you are
16 joining us remotely and wish to make a verbal comment, you
17 must be using Zoom webinar or calling in by phone. If you
18 are watching on the webcast, but you wish to comment
19 remotely, please register for the Zoom webinar or call in.
20 Information for both can be found on the public agenda for
21 today's meeting.

22 To make a comment, we will be using the, "Raise
23 Hand" feature in Zoom. If you wish to speak on a Board
24 item, please virtually raise your hand, as soon as the
25 item has begun to let us know that you wish to speak. If

1 you are using a computer or tablet, there is a "Raise
2 Hand" button. And if you are calling in on the telephone
3 please dial star nine to raise your hand. When the
4 comment period begins, the order of commenters is
5 determined by who raises their hand first. We will call
6 each commenter by name and will activate each commenter's
7 audio when it is their turn to speak. For those calling
8 in, we will identify you by the last three digits of your
9 phone number. We will then announce the next three or so
10 commenters in the queue so you are ready to testify when
11 we come to you.

12 Please note, your testimony will not appear by
13 video. For all commenters, please state your name for the
14 record before you speak. This is especially important for
15 those calling in by phone. Each commenter will have a
16 time limit of two minutes. Although this may change at
17 the Chair's discretion. During public testimony, you will
18 see a timer on the screen. For those calling in by phone,
19 will let you know when you have 30 seconds left and when
20 your time is up.

21 For anyone giving verbal comments today in
22 Spanish, please indicate so at the beginning of your
23 testimony and our interpreter will assist you. During
24 your comment, please follow any instructions the
25 interpreter provides. Please note your time will be

1 doubled if you require Spanish interpretation. If you
2 have additional remarks regarding other topics, please
3 sign up to speak during the open comment -- open public
4 comment period, which will take place at the conclusion of
5 this meeting.

6 To submit written comments, please visit CARB's
7 "Comment on Board Items Box" on the public agenda on our
8 webpage for links to submit your comment. Written
9 comments will be accepted until the Chair closes the
10 record. If you experience technical difficulties, please
11 call (805)772-2715 so an IT person can assist.

12 Thank you. I'll turn the microphone back to the
13 Chair.

14 CHAIR SANCHEZ: Wonderful. Thank you. As this
15 is my first meeting as Chair, I'd like to take a few
16 moments before we dive in to share a few words. From the
17 start of my career, I've been driven for -- by a passion
18 for climate and clean air, work that has taken me around
19 the country and around the world serving at State,
20 federal, and international levels. Yet, my very first
21 role in State service was here at CARB. So in many ways,
22 today feels like coming home. I am honored take up this
23 position. It is a privilege to serve alongside my fellow
24 Board members and CARB's incredible staff and to follow in
25 the footsteps of the visionary leaders who have come

1 before me, including two of my close mentors and friends,
2 Liane Randolph and Mary Nichols.

3 There is no doubt that this is both a critical
4 and a challenging moment to take up this role. While we
5 have made enormous strides in addressing air pollution,
6 far too many Californians still breathe unhealthy air.
7 And the impacts of the climate crisis are hitting
8 communities across our state harder than ever causing more
9 extreme weather and exacerbating air pollution. At the
10 same time, California's world leading environmental
11 programs and our very authority to enact clean air policy
12 are facing unprecedented attacks. But even as we face
13 these challenges, I remain hopeful.

14 For decades, California has been leading the way
15 towards healthy air and a sustainable clean energy
16 economy, and we will continue to do so. We have a
17 powerful coalition of people and organizations in
18 California committed to continuing this work, dedicated
19 public servants, courageous communities, innovative
20 businesses, passionate advocates. And driven researchers.

21 I am eager to continue this work together with my
22 colleagues at CARB, with our sister agencies, and with the
23 communities and stakeholders who are at the heart of what
24 we do. Let me be clear, California won't back down. CARB
25 will work tirelessly to fulfill our mission. We will

1 tackle these challenges head on and we will continue
2 making progress. Together, we will achieve the carbon
3 neutral clean air future that all Californians deserve.

4 (Applause).

5 CHAIR SANCHEZ: Thank you. Thank you. Thank
6 you.

7 The first item on the consent calendar, as noted
8 on the public agenda, is Item number 25-7-1, public
9 meeting to consider the addition of Diane Takvorian to the
10 AB 617 Community Air Protection Consultation Group as
11 Co-Chair. If you would like to comment on staff's
12 proposal as posted on CARB's website, please raise your
13 hand in Zoom or dial star nine now. When we get to the
14 public comment portion of this item, we will call on
15 in-person commenters who have submitted a request-to-speak
16 card followed by those who have virtually raised their
17 hands. Board Member Takvorian will abstain from the
18 discussion and vote.

19 Dr. Cliff, would please summarize the item.

20 EXECUTIVE OFFICER CLIFF: Thank you, Chair
21 Sanchez and good morning. CARB staff recommends
22 appointing Board Member Diane Takvorian as a new member
23 and Co-Chair to the Community Air Protection Assembly Bill
24 617 Consultation Groups.

25 Enacted in 2017, AB 617 established the Community

1 Air Protection Program to address air pollution in
2 communities most affected by air quality issues. The bill
3 mandates CARB to work closely with local air districts and
4 communities to reduce exposure to air pollutants through
5 community-focused actions. The Community Air Protection
6 Consultation Group was formed in 2018 to provide guidance
7 and recommendations to CARB on the implementation of AB
8 617.

9 The purpose of the Consultation Group is to
10 advise CARB on the development and implementation of our
11 statewide strategy to improve air quality in the most
12 overburdened communities known as Blueprint 2.0, which is
13 legislatively required to be updated every five years. In
14 June of this year, this Board approved for membership a
15 diverse pool of candidates to the Consultation Group
16 resulting in an expanded representation of stakeholders,
17 including environmental justice organizations, additional
18 air districts, local and tribal government
19 representatives, AB 617 community steering committees, and
20 representatives from consistently nominated communities.

21 Dr. Balmes has been a pivotal leader in the
22 Consultation Group bringing his extensive expertise in
23 environmental justice, public health, and air quality.
24 His leadership has been instrumental in advancing the
25 goals of AB 617 and ensuring that the voices of impacted

1 communities are heard and addressed. When CARB first
2 convened a group of 25 diverse stakeholders in 2018, it
3 was a significant step in building a program to meet the
4 ambitious goals laid out in AB 617.

5 Staff is recommending Diane Takvorian to be named
6 as Co-Chair. Diane Takvorian is an exceptional candidate
7 to serve as Co-Chair of the Community Air Protection
8 Consultation Group. With decades of leadership in
9 environmental justice, she brings a wealth of experience
10 advocating for clean air and healthier communities,
11 particularly in areas disproportionately burdened by air
12 pollution. As the Co-Founder and Executive Director of
13 the Environmental Health Coalition, Diane has demonstrated
14 a lifelong commitment to empowering frontline communities
15 and ensuring their voices shape environmental policy.

16 Her tenure on the California Air Resources Board
17 further underscores her qualifications. She has played a
18 pivotal role in integrating equity and public health into
19 regulatory frameworks, making her deeply familiar with the
20 goals and operations of the Community Air Protection
21 Program.

22 Ms. Takvorian's ability to navigate complex
23 policy environments while staying laser focused on
24 community needs makes her an ideal candidate to bring
25 together residents, advocates, and government agencies as

1 part of the Consultation Group.

2 Moreover, she is widely respected for her
3 collaborative leadership style. She builds trust across
4 diverse stakeholders and fosters inclusive dialogue, which
5 is essential for the Consultation Group tasked with
6 addressing environmental injustices. Her vision,
7 experience, and unwavering dedication to clean air for all
8 makes her a compelling choice for Co-Chair.

9 This concludes my summary of the item.

10 Thank you.

11 BOARD MEMBER BALMES: Thank you, Dr. Cliff. I
12 don't think there's going to be any problem with this
13 consent item, but I just want to make a moment to reflect
14 on my time as Chair of the AB 617 Consultation Group. And
15 initially, I didn't have a Co-Chair. And it was such a
16 hard position to be Chair, that I needed help. I reached
17 out to former Chair Randolph, and we formed a subquorum to
18 talk about that. And I was really pleased when Davina
19 Hurt willingly, I think, stepped up to be my Co-Chair on
20 AB 617. We didn't have to have a special motion back
21 then.

22 But we fortunately have -- when we reinvigorated
23 AB 617 Consultation Group, we regularized it, and the
24 Board voted on the new members. And I was told when I
25 requested a Co-Chair, and I specifically requested Diane,

1 after talking to her, that we had to -- that, you know,
2 she was only an alternate and wasn't going to be able to
3 vote or really participate, except in the public portion
4 of the meetings. I said that's not going to work.

5 So, I said, well, we're going to have to take it
6 back to the Board and she'll have to be formally nominated
7 and voted on as Co-Chair. I just want to say, echoing Dr.
8 Cliff's comments that I couldn't ask for a better Co-Chair
9 than Diane.

10 (Applause).

11 BOARD MEMBER BALMES: And in addition to all the
12 nice things he said about you, which were all true, you're
13 also a hell of a nice person, which -- so I move -- oh, I
14 guess we don't have to move it.

15 CHAIR SANCHEZ: Yeah. Thank you, Dr. Balmes.

16 BOARD CLERK MOORE: Just a moment. We are
17 actually having technical difficulties. People on Zoom
18 are having trouble connecting, so we're going to pause
19 currently and for technical difficulties.

20 CHAIR SANCHEZ: Great. We will pause.

21 (Off record: 9:25 a.m.)

22 (Technical difficulties.)

23 (Thereupon a recess was taken.)

24 (On record: 10:00 a.m.)

25 BOARD CLERK FRENCH: Hello, everyone. Hello,

1 everyone. We will now resume the October 23rd, 2025 Board
2 meeting. If you have been having issues rejoining Zoom,
3 please rejoin now. We will move to the public comment
4 portion of this item.

5 As noted, if you would like to comment on staff's
6 proposal, as posted on the CARB's website, please raise
7 your hand in Zoom or dial star nine now. We will call
8 first on in-person public commenters. We have submitted a
9 request-to-speak card, followed by those have virtually
10 raised their hand. We currently do not have any public
11 commenters to speak in person. And we also currently do
12 not have any public commenters to speak on Zoom as well.
13 So I will turn the item back to the Chair.

14 CHAIR SANCHEZ: Thank you. We're back. The
15 Board has before them Resolution number 25-10. Do I have
16 a motion and a second to approve the addition of Diane
17 Takvorian to the AB 617 Community Air Protection
18 Consultation Group as Co-Chair.

19 BOARD MEMBER BALMES: So moved.

20 BOARD MEMBER FLOREZ: Second by Dean Florez.

21 CHAIR SANCHEZ: Wonderful. Please note Board
22 Member Takvorian has abstained from this item.

23 Board Clerk, would you please call the roll.

24 BOARD CLERK MOORE: Thank you.

25 Dr. Balmes?

1 BOARD MEMBER BALMES: Yes.

2 BOARD CLERK MOORE: Mr. De La Torre?

3 BOARD MEMBER DE LA TORRE: Yes.

4 BOARD CLERK MOORE: Mr. Eisenhut?

5 BOARD MEMBER EISENHUT: Yes.

6 BOARD CLERK MOORE: Senator Florez?

7 BOARD MEMBER FLOREZ: Florez aye.

8 BOARD CLERK MOORE: Mayor Gloria?

9 BOARD MEMBER GLORIA: Yes.

10 BOARD CLERK MOORE: Councilman Guerra?

11 BOARD MEMBER GUERRA: Aye.

12 BOARD CLERK MOORE: Supervisor Hopkins?

13 BOARD MEMBER HOPKINS: Yes.

14 BOARD CLERK MOORE: Mayor Lock Dawson?

15 BOARD MEMBER LOCK DAWSON: Aye.

16 BOARD CLERK MOORE: Supervisor Ortiz-Legg?

17 BOARD MEMBER ORTIZ-LEGG: Yes.

18 BOARD CLERK MOORE: Dr. Pacheco-Werner?

19 BOARD MEMBER PACHECO-WERNER: Yes.

20 BOARD CLERK MOORE: Mr. Rechtschaffen?

21 BOARD MEMBER RECHTSCHAFFEN: Yes.

22 BOARD CLERK MOORE: Dr. Shaheen?

23 BOARD MEMBER SHAHEEN: Aye.

24 BOARD CLERK MOORE: Chair Sanchez?

25 CHAIR SANCHEZ: Yes.

1 BOARD CLERK MOORE: Madam Chair, the motion
2 passes.

3 CHAIR SANCHEZ: Congratulations.

4 Please.

5 (Applause).

6 BOARD MEMBER TAKVORIAN: Thank you so much to my
7 colleagues on the Board and for the kind words from staff.
8 I look forward to working with Dr. Balmes and with the
9 Community Air Protection staff. It's an exciting team and
10 I know we have a lot of good work to do. Thank you.

11 CHAIR SANCHEZ: Wonderful.

12 The second item on the agenda is Item number
13 25-7-2, public meeting to hear the annual update on
14 California's State Implementation Plans. If you are with
15 us here in the room and wish to comment on this item,
16 please fill out a request-to-speak card as soon as
17 possible and submit it to a Board assistant. If you are
18 joining us remotely and wish to comment on this item,
19 please click the "Raise Hand" button or dial star nine
20 now. We will first call on in-person commenters, followed
21 by any remote commenters when we get to the public comment
22 portion of this item.

23 It is CARB's mission to protect public health.
24 One way we measure our success is by meeting the National
25 Ambient Air Quality Standards that are set by U.S. EPA

1 based on the best available science and are intended to
2 protect public health. Our very own Dr. Balmes sat on the
3 national committee that set these standards.

4 CARB's mobile source emission control programs,
5 together with the stationary source controls implemented
6 by our District partners, have made great strides towards
7 reducing emissions and helping Californians breathe
8 easier. Even so, we have a long way to go to meet the
9 standards throughout the state and provide healthy air for
10 all Californians. There are many plans that have been
11 developed to demonstrate how we can achieve federal
12 standards, but those plans have been put in jeopardy due
13 to the illegal and unconstitutional actions taken by the
14 current federal administration.

15 Despite these challenges, we remain committed to
16 protecting public health and achieving State and federal
17 air quality standards by reducing harmful pollution from
18 sources under our authority. This work will continue,
19 despite the current federal administration's hostility
20 towards California's air quality programs and U.S. EPA's
21 reckless dereliction of duty.

22 We've come a long way since the mysterious smog
23 monster menaced Southern California in the 1940s and 50s,
24 but there's still more to do. We have a legal and moral
25 obligation to continue improving air quality. More than

1 17 million Californians still breathe unhealthy air and
2 1,500 die from air pollution every year in Southern
3 California alone.

4 We are not giving up and we will use every tool
5 at our disposal, including litigation, to continue our
6 critical work to clean the air. The health and well-being
7 of Californians depends on it.

8 Dr. Cliff, would you please introduce this item.

9 EXECUTIVE OFFICER CLIFF: Thank you, Chair
10 Sanchez. As you mentioned, the current federal
11 administration is attempting to strip away California's
12 ability to achieve clean air through illegal,
13 congressional resolutions to disapprove three of CARB's
14 waivers for car and truck emission standards and a recent
15 proposal to disapprove the SIP submittal of CARB's Clean
16 Truck Check Program.

17 Because of this federal administration,
18 California cannot exercise the authority given to us in
19 the Clean Air Act. Because of this federal
20 administration, more Californians will get sick and die
21 from poor air quality. Because of this federal
22 administration, California is at risk of losing federal
23 transportation funds due to Clean Air Act sanctions.

24 Today, staff will provide an update on our
25 actions to stand up to this administration, ensuring that

1 we meet the requirements of the Clean Air Act and continue
2 to work toward healthy air in California.

3 The Board is going to hear similar themes in this
4 Board item today, in November, during our joint meeting
5 with transportation agencies, and again in a Board meeting
6 early next year when we plan to bring attainment plan
7 revisions to the Board. These themes converge around the
8 collective roles of public agencies in bringing down air
9 pollutant concentrations that Californians breathe every
10 day to healthy levels. The health of our children,
11 mothers, fathers, families, friends, and neighbors is
12 affected by our ability to achieve this core part of
13 CARB's mission.

14 As an air quality agency with the mission to
15 protect public health, we believe in implementing Clean
16 Air Act plans designed to attain healthy pollutant
17 concentration levels established through good science and
18 a public process. Today, staff will provide an overview
19 of the current status of air quality attainment plans for
20 regions across the state. This includes successes
21 achieved, and the ways in which we are working towards
22 solutions for Clean Air Act problems created by the
23 federal government.

24 It's important to emphasize the significant air
25 quality progress California has made in implementation of

1 control programs committed to in the State Implementation
2 Plan over the years, but we must take this opportunity to
3 also discuss the increasingly challenging landscape we are
4 faced with due to federal -- due to this federal
5 administration that day after day takes actions to undue
6 environmental progress.

7 I will now ask Victor Mendiola of the Air Quality
8 Planning and Science Division to begin the staff
9 presentation.

10 Victor.

11 (Slide presentation).

12 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: Thank
13 you, Dr. Cliff.

14 Good morning, members of the Board. My name is
15 Victor Mendiola. I'm an Air Pollution Specialist in the
16 Air Quality Planning and Science Division.

17 Today, I will --

18 BOARD MEMBER RECHTSCHAFFEN: Can you speak a
19 little closer to the mic, Victor. Thank you.

20 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: How is
21 that?

22 Today, I'll be presenting a statewide update on
23 the status of the State Implementation Plan, or SIP. This
24 is the first annual SIP update stemming from the Board's
25 direction last year.

1 [SLIDE CHANGE]

2 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: I will
3 be covering: the health effects from exposure to criteria
4 pollutants; Federal Clean Air Act and State Implementation
5 plan Overview; California Air Quality and SIP Progress;
6 2022 State SIP Strategy and Recent Attainment Plans;
7 federal Attacks on California programs and Impacts on
8 SIPs; and close with steps moving forward.

9 [SLIDE CHANGE]

10 AQPSD AIR POLLUTION SPECIALIST MENDIOLA:

11 Exposure to Criteria Pollutants directly harms
12 human health. The two criteria pollutants for which
13 California still experiences attainment challenges are
14 fine particulate matter, or PM2.5, and ozone. PM2.5 can
15 be both directly emitted and formed secondarily in air
16 from a combination of emissions of its precursors: oxides
17 of nitrogen, or NOx, ammonia, sulfur oxides, and volatile
18 organic compounds. The effects this criteria pollutant
19 can have on health are significant and include premature
20 death, hospitalizations for cardiovascular and respiratory
21 reasons, and asthma. Ozone is formed in the air from the
22 reaction of VOC and NOx in the presence of sunlight. The
23 negative effects of ozone on health include respiratory
24 symptoms, worsened lung function and disease, and lung
25 tissue damage.

1 [SLIDE CHANGE]

2 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: The
3 federal Clean Air Act established legal authorities for
4 federal air pollution control programs, requirements for
5 U.S. EPA to set air quality standards, and requirements
6 states must meet if they have areas not meeting a
7 standard. Per the Clean Air Act, U.S. EPA must set
8 National Ambient Air Quality Standards, or NAAQS, for the
9 six criteria pollutants listed at the bottom of the slide.
10 The NAAQS are to be reviewed every five years. States are
11 responsible for developing attainment plans for areas
12 within the state that exceed a NAAQS. The plan is
13 developed and adopted through a public process and must be
14 submitted to U.S. EPA as a revision to their State
15 Implementation Plan, or SIP.

16 [SLIDE CHANGE]

17 AQPSD AIR POLLUTION SPECIALIST MENDIOLA:

18 Attainment plans are comprehensive documents that
19 demonstrate how an area will attain a NAAQS and meet other
20 requirements of the Clean Air Act. Additional
21 requirements include control measure levels known as
22 reasonably available or best available control technology,
23 otherwise known as RACT/BACT, progress requirements for
24 milestone years, and contingency measures.

25 In addition to the planning documents, rules and

1 regulations needed to fulfill the plan commitments, reduce
2 the level of criteria pollutant emissions, and meet
3 requirements of the Federal Clean Air Act must be
4 submitted and approved into the SIP. Once approved by
5 U.S. EPA, the control measures in the SIP are enforceable
6 in federal courts, including through lawsuits by citizens.

7 [SLIDE CHANGE]

8 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: In
9 California, there is a shared responsibility for air
10 quality between federal, State and local air districts.
11 CARB works jointly with the local air districts to develop
12 attainment plans and other SIP revisions, with each entity
13 having the responsibility to identify control measures for
14 sources under their regulatory authority.

15 The SIP process is comprised of developing a plan
16 through a public process, adoption by the District Board
17 and CARB, and U.S. EPA approval of the submission. State,
18 local air -- local district, and, ideally, federal
19 controls and reductions are incorporated as needed to
20 demonstrate attainment of a NAAQS.

21 CARB's State SIP Strategy outlines control
22 measures to achieve emission reductions from state
23 sources. Districts also commit to controls and reductions
24 for their sources, and all the controls and reductions are
25 packaged together to form the Attainment Plan or other SIP

1 element.

2 Once the Attainment Plan is developed, it must be
3 adopted by the District Board and CARB, following
4 appropriate public process. The public process includes a
5 minimum 30-day notice for these Board actions, but usually
6 also involves multiple drafts, public workshops, and other
7 types of public engagement prior to formal consideration
8 by District and CARB boards.

9 After the Plan is adopted by this Board, it will
10 be submitted to U.S. EPA for approval into the California
11 SIP. U.S. EPA must review the submission and then publish
12 a proposed action with a public comment period before
13 taking final action. Once U.S. EPA finalizes attainment
14 plan approval, the control measures and commitments in the
15 attainment plan become part of the California SIP and are
16 federally enforceable.

17 [SLIDE CHANGE]

18 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: This
19 slide shows the current ozone and PM2.5 nonattainment
20 areas in the state. Nonattainment areas can have
21 different classifications, which vary by pollutant.
22 Higher classifications generally have worse pollutant
23 levels in the area. Because of this, areas with higher
24 classifications have attainment dates further into the
25 future, but have to implement stricter measures.

1 The map on the left shows nonattainment areas by
2 classification for the current 8-hour ozone standard of 70
3 parts per billion set in 2015. The areas include: seven
4 areas with the lowest classification of marginal in the
5 darkest green, one moderate area in light green, three
6 areas classified as serious and three areas as severe in
7 yellow and orange, and two areas with highest
8 classification of extreme in red.

9 On the right are areas currently designated
10 nonattainment for PM2.5 standards. The PM2.5
11 nonattainment areas include the major metropolitan regions
12 of California, as well as Portola in Plumas County and
13 part of Imperial County. The areas shown in blue stripe
14 are nonattainment for the current 24-hour averaged
15 standard of 35 microgram per cubic meter, set in 2006.
16 The areas in the pink hue are nonattainment for the annual
17 averaged standard of 12 micrograms per cubic meter, set in
18 2012. There is a more stringent annual-average standard
19 of 9 microgram per cubic meter set in 2024, for which
20 nonattainment areas are likely to include one or two new
21 areas in addition to all the areas shown here. Those
22 areas are San Diego and Mendocino counties. The areas are
23 not shown here since U.S. EPA has not yet formally taken
24 action on designating areas for the 9 microgram per cubic
25 meter standard.

1 [SLIDE CHANGE]

2 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: There
3 are many factors that lead to formation of PM2.5 and
4 Ozone, not the least of which is California's unique
5 topography, shown in the map on this slide. Together,
6 with the typical wind patterns and other meteorological
7 factors, the mountains surrounding valleys and other low
8 elevation areas can serve as walls that trap in precursor
9 pollutants and increase ozone and PM2.5 levels. Other key
10 factors include growing population size and corresponding
11 emission sources, atmospheric chemistry, and the
12 increasing frequency and size of wildfires and prescribed
13 fires.

14 [SLIDE CHANGE]

15 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: Even
16 with these challenges, the State has made great strides in
17 improving air quality in the last 25 years. The contour
18 maps shown on this slide demonstrate our substantial
19 progress in reducing 8-hour ozone concentrations across
20 the state over the last 25 years. These maps are showing
21 monitored ozone levels from regulatory air monitors across
22 the state, averaged over a three-year period to create
23 what is known as a "design value". These are also what
24 will be shown on the next couple of slides in trend plots.

25 As can be seen in the red colors on this map, the

1 vast majority of the state exceeded the current 8-hour
2 ozone standard of 70 ppb back in 2000, with over 95
3 percent of residents breathing air exceeding current
4 federal ozone or PM2.5 standards. Today, the majority of
5 Californians breathe healthy air, with 44 percent still
6 exposed to unhealthful levels of ozone.

7 [SLIDE CHANGE]

8 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: I'll
9 quickly walk through the progress made by areas designated
10 nonattainment for the 8-hour ozone standards over the last
11 quarter century.

12 For the ozone NAAQS, an average of the annual
13 fourth highest daily maximum 8-hour average concentrations
14 recorded each year for three years is calculated for each
15 monitor, known as the design value. The monitor with the
16 highest design value in a nonattainment area is used to
17 represent the ozone concentration in that area.

18 The graph shows that design values across the
19 state have trended downward. Many areas have attained the
20 80 ppb and 75 ppb ozone standards. Beyond the nine areas
21 shown here, 10 additional areas across the state were also
22 designated as nonattainment for the 70 ppb 8-hour ozone
23 standard in 2018 and have since met the standard.

24 Despite design values being driven toward
25 attainment, more work needs to be done, especially for the

1 extreme nonattainment areas of the South Coast Air Basin,
2 nearby Coachella Valley, and San Joaquin Valley to reach
3 attainment.

4 [SLIDE CHANGE]

5 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: There
6 are both 24-hour and annual NAAQS for PM2.5. This graph
7 shows the annual PM2.5 design values, which are the annual
8 average concentrations for the highest monitor in each
9 nonattainment area. Looking at the trends in annual
10 average PM2.5 shows a general driving down of PM2.5
11 concentrations across California. The design value trend
12 plot shows South Coast, San Joaquin, Portola in Plumas
13 County, and Imperial County have reached attainment for
14 the 1997 annual average PM2.5 standard. This trend plot
15 also shows that more reductions are needed for some areas
16 to attain the 2012 12 microgram per cubic meter standard.

17 [SLIDE CHANGE]

18 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: In this
19 next portion of the presentation, I'll highlight some of
20 the recent accomplishments at the regional level and by
21 local air districts, starting with South Coast AQMD.

22 Despite decades of progress, South Coast still
23 has the highest ozone levels in the nation and remains one
24 of the state's most challenging regions for air quality
25 issues. South Coast has adopted or amended numerous rules

1 over the last couple of years, including a few key control
2 rules to support reductions in PM2.5 and ozone: a Wood-
3 Burning Devices Rule, NOx emissions from large water
4 heaters and small boilers, and an Oil and Gas Production
5 Wells Rule to name a few.

6 The area has also had a few recent SIP
7 accomplishments. As of 2024, South Coast is attaining the
8 35 microgram per cubic meter 24-hour PM2.5 NAAQS and is
9 developing the redesignation request and maintenance plan.
10 The maintenance plan South Coast is developing will also
11 include a redesignation request and maintenance plan for
12 the 1997 65-microgram and 55 -- excuse me, and
13 15-microgram per cubic meter PM2.5 standards.

14 Also, as of last year, Coachella Valley, a
15 separate nonattainment area within jurisdiction of South
16 Coast AQMD, is attaining the 1997 80 ppb 8-hour ozone
17 NAAQS.

18 [SLIDE CHANGE]

19 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: I'll
20 also highlight San Joaquin APCD's recent accomplishments,
21 as they are the area of the state with the most
22 significant challenge with respect to attainment of PM2.5
23 standards.

24 San Joaquin has also been advancing many
25 rulemaking efforts in recent years, including adoption of

1 key rules for crude oil production wells and sumps,
2 reaching the final implementation milestone for the
3 agricultural burning phaseout, and ongoing development of
4 additional amendments to the District's Wood Burning
5 Devices and Conservation Management Practices rules.
6 These reductions will support both PM and ozone plans.

7 San Joaquin's SIP accomplishments include a major
8 milestone on the PM2.5 front: attainment of the 1997 15
9 microgram per cubic meter standard in the last year. The
10 District is working on developing a Redesignation Request
11 and Maintenance Plan for both that standard and the 1997
12 65 microgram per cubic meter standards, for which they
13 have been in attainment for some time.

14 U.S. EPA also recently approved the redesignation
15 request -- U.S. EPA also recently approved the
16 redesignation to attainment of the San Joaquin Valley for
17 the 1-hour ozone NAAQS based on a plan that was submitted
18 in 2023.

19 [SLIDE CHANGE]

20 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: Other
21 areas across the state have also seen successes in the
22 last couple of years. Sacramento metropolitan area is
23 attaining the 75 ppb 8-hour ozone NAAQS, an accomplishment
24 that U.S. EPA acknowledged with a formal determination
25 just this past August.

1 Mariposa County is attaining the 70 ppb 8-hour
2 ozone NAAQS as of their 2023 attainment year. A second
3 Maintenance Plan for the 2006 35 microgram per cubic meter
4 PM2.5 standard is under development for the Chico
5 nonattainment area, which continues to attain the PM2.5
6 standard. A second Maintenance Plan for the 2006 35
7 microgram per cubic meter PM2.5 standard for the Yuba
8 City/Marysville/Feather River was submitted to U.S. EPA in
9 July 2023. This is awaiting action by U.S. EPA.

10 A few of the rules recently adopted by other
11 areas include San Diego adopting a commercial charbroiling
12 rule and Sacramento Metropolitan area adopting both a
13 green waste composting rule and an LPG transfer and LPG
14 dispensing rule.

15 [SLIDE CHANGE]

16 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: In
17 addition to all of the regional efforts by the districts,
18 at the State level, we have also put significant time and
19 resources over the last few years into identifying control
20 measures and charting our path forward to support air
21 quality progress over the coming decades.

22 For the State Implementation Plan, CARB's roadmap
23 takes the form of the State SIP Strategy in which CARB
24 commits -- in which CARB commits to pursue measures along
25 a defined schedule and commits to achieve emission

1 reductions for nonattainment areas.

2 The State SIP Strategy that this Board adopted in
3 September 2022 was driven by reductions needed to support
4 attainment of the 70 ppb 8-hour ozone standard set by U.S.
5 EPA in 2015. This strategy built on the 2020 Mobile
6 Source Strategy and included an unprecedented variety of
7 new State measures to reduce emissions using all
8 mechanisms available. This level of action is what is
9 needed to meet air quality standards and will drive the
10 pace and scale of CARB rulemakings needed through 2030.
11 CARB has since adopted a number of these rules that were
12 included as measure commitments in that strategy.

13 [SLIDE CHANGE]

14 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: The
15 State SIP Strategy was incorporated into many attainment
16 plans and now there are several attainment plans that rely
17 on CARB measures that are awaiting action by U.S. EPA.
18 The areas with 70 ppb ozone attainment plans are South
19 Coast, San Joaquin Valley, Coachella Valley, Mojave
20 Desert, Sacramento Metropolitan Area, Eastern Kern County,
21 and Ventura County. The plans were submitted to U.S. EPA
22 in 2022-2023.

23 South Coast and San Joaquin Valley also have 12
24 microgram per cubic meter PM2.5 attainment plans that were
25 submitted to U.S. EPA last year and are awaiting action.

1 These plans also rely on the measures in the 2022 State
2 SIP Strategy.

3 [SLIDE CHANGE]

4 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: As this
5 Board knows, this year we've seen an unprecedented attack
6 by the federal government on CARB's programs, including
7 many of the programs that were included in our recent SIP
8 submittals to U.S. EPA.

9 In anticipation of this, and in response to
10 posturing by the incoming administration, there were some
11 specific actions CARB decided to take at the start of this
12 year. In January, after the Biden administration
13 unfortunately ran out of time to act on them, CARB
14 withdrew waivers and authorizations requests that were
15 still awaiting action by U.S. EPA.

16 This withdrawal included requests related to the
17 Advanced Clean Fleets and In-Use-Locomotive regulations,
18 and a partial withdrawal of requests related to the
19 Commercial Harbor Craft and Transportation Refrigeration
20 Units regulations.

21 In May 2025, Congress passed three
22 unconstitutional and illegal resolutions, which the
23 President signed in June 2025, and which California is
24 challenging. These illegal resolutions purported to
25 disapprove three actions by U.S. EPA waiving federal

1 preemption for CARB's Advanced Clean Cars II, Heavy-Duty
2 Vehicle and Engine Omnibus Low NOx, and Advanced Clean
3 Trucks with the Heavy-Duty Vehicle and Engine Emission
4 Warranty Regulations and Maintenance Provisions, Zero
5 Emission Airport Shuttle, and Zero Emission Powertrain
6 Certification regulations.

7 More recently, in August 2025, U.S. EPA issued a
8 proposed partial disapproval for CARB's SIP submission of
9 our Heavy-Duty Inspection and Maintenance program, also
10 known as Clean Truck Check. While Clean Truck Check does
11 not require a waiver under the Clean Air Act, it must be
12 submitted and approved into the SIP in order for it to be
13 counted in California's SIP emissions inventories. It's
14 important to note that this proposed partial SIP
15 disapproval would not impact implementation of the
16 regulation and CARB will still enforce, but would impact
17 California's ability to credit the emission reductions in
18 our attainment plans and other SIP revisions.

19 Of course, the current federal administration's
20 attacks on clean air and environmental progress are not
21 limited to CARB programs. This administration is also
22 seeking to roll back or limit numerous federal
23 environmental regulations in unprecedented ways.

24 [SLIDE CHANGE]

25 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: This

1 slide shows how big an impact federal attacks may have on
2 emissions in California. The bar on the left represents
3 the 2018 baseline inventory for mobile source NOx. This
4 was the base year for recent planning efforts. The middle
5 bar shows 2037, the attainment year for South Coast and
6 San Joaquin Valley under the 70 ppb standard, and the
7 large reductions in emissions from CARB regulations as
8 adopted, especially in the off-road equipment, heavy-duty
9 vehicles, and locomotives source categories.

10 If we add back in the NOx reductions that would
11 be lost due to the federal actions challenging CARB's
12 programs, we see an increase of 175 tons per day in 2037.
13 That is a 40 percent increase in mobile source NOx
14 emissions compared to where we would have been with all of
15 the adopted CARB regulations in place.

16 It should also be noted that for the sources
17 primarily regulated by the federal government, shown in
18 teal hues on the chart, little to no reduction in
19 emissions is anticipated between the 2018 base year of the
20 plans and the 2037 attainment year. These sources
21 progressively account for a larger share of California NOx
22 emissions, as CARB regulates our sources and the federal
23 government in the same time span has adopted few
24 regulations. This problem is now exacerbated by the
25 current federal administration and their endeavors to roll

1 back as many regulations as possible, both at the State
2 and federal level.

3 [SLIDE CHANGE]

4 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: As I
5 discussed at the outset of this presentation, exposure to
6 criteria pollutants directly harms human health. The
7 federal attacks undermine California's proven ability to
8 protect Californians and improve air quality and will make
9 air quality worse. More Californians will breathe
10 unhealthy air. More Californians will get sick.

11 As a significant precursor, increases in NOx
12 emissions will result in increases in ozone and secondary
13 PM2.5 levels across the state. Along with these elevated
14 levels, we can expect to see an increase in health-related
15 outcomes for California residents. As shown in the
16 previous slide, NOx emissions from mobile sources will be
17 about 40 percent higher in 2037 than they would have been
18 previously, and direct PM2.5 emissions will also go up by
19 approximately 18 percent in 2037. All of these increases
20 will lead to more than 14,500 additional cardiopulmonary
21 deaths, 5,000 additional hospitalizations for
22 cardiovascular and respiratory illness, and 6,700
23 additional emergency room visits over the lifetime of the
24 impacted regulations.

25 [SLIDE CHANGE]

1 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: The
2 adverse federal actions will also increase diesel
3 particulate matter emissions, especially from heavy-duty
4 trucks. Diesel particulate is a carcinogen, so we can
5 expect an increase in cancer risk in communities near
6 freeways and other places with heavy truck traffic. This
7 slide shows the estimated increase in cancer risk in AB
8 617 communities across the state, based on recent toxic
9 risk modeling. An increase in 58 incidents per million,
10 49 incidents per million, and 85 incidents per million can
11 be expected in West Oakland, South Central Fresno, and
12 East Los Angeles respectively, stemming from the loss of
13 reductions from On-Road Truck regulations.

14 [SLIDE CHANGE]

15 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: In
16 addition to the direct health impacts, the recent federal
17 actions create other types of challenges. They are
18 already causing significant issues in transportation
19 planning across the state, and there is the possibility of
20 more issues and uncertainty, as well as potential
21 SIP-related sanctions in the coming years.

22 Transportation conformity is the mechanism that
23 ensures California's transportation investments align with
24 regional plans to meet federal clean air standards.
25 Because of the loss of expected emission reductions from

1 federal actions, many regional governments may not be able
2 to demonstrate transportation conformity for their
3 regional transportation plans and transportation
4 improvement programs. These impacts are already being
5 felt today. Without a quick resolution, this could lead
6 to conformity lapses and freezes that halt transportation
7 projects across the state. These challenges will be the
8 focus of the November joint hearing with the California
9 Transportation Commission and the Department of Housing
10 and Community Development.

11 In addition, sanctions can result from failing to
12 meet SIP requirements. U.S. EPA either disapproving a SIP
13 submittal or determining that the State failed to submit
14 something as required could result in emission offset
15 sanctions for stationary sources and the withholding of
16 federal highway funding to the State.

17 The first sanction, requirements for increased
18 stationary source emission offsets, is triggered 18 months
19 after U.S. EPA makes a determination that an area has not
20 met a SIP requirement. Twenty-four months after the
21 determination, federal highway funding is withheld,
22 excluding exempt safety projects and other narrow
23 limitations. After 24 months from the determination, U.S.
24 EPA is also required to promulgate a Federal
25 Implementation Plan if the State is unable to resolve a

1 deficiency. Under a Federal Implementation Plan, the
2 federal government can choose the route by which we show
3 attainment.

4 Recent federal actions threaten our ability to
5 meet requirements of the Clean Air Act. This will cause
6 more Californians to experience unhealthy air. It also
7 exposes the State to potential Clean Air Act sanctions and
8 the potential loss of federal transportation funding. The
9 federal actions impact multiple State and local agencies,
10 not just CARB. This is not just about air quality, but
11 also affects planning and investments for transportation
12 and land use projects across the state. Almost every
13 major project, from new rail extensions to freeway
14 improvements, requires a conformity demonstration.

15 The recent federal actions create uncertainty,
16 delay environmental review, and increase litigation risk
17 for projects. This is delaying adoption of transportation
18 plans and could threaten billions in highway and transit
19 investments.

20 [SLIDE CHANGE]

21 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: Moving
22 forward, CARB staff are continuing to assess the impacts
23 from the federal actions to the SIP, transportation
24 conformity, emissions inventory, and future regulatory
25 development. In response to illegal federal efforts to

1 revoke California's clean air waivers, Governor Gavin
2 Newsom signed an Executive Order on June 12, 2025. The
3 Executive Order N-27-25 directed the California Air
4 Resources Board, along with our sister agencies, to assess
5 additional actions to spur light-, medium-, and heavy-duty
6 zero-emission vehicle adoption in California, and to
7 deliver formal recommendations for additional actions to
8 the governor in August.

9 The near-term result of this was the ZEV Forward
10 report, which the Board will hear as the next item on this
11 agenda.

12 Staff have been working for months to identify
13 potential SIP solutions to the issues created by the
14 federal actions as they relate to the plans currently
15 before U.S. EPA. CARB has already taken action to clarify
16 that its prior regulations remain operative and
17 enforceable. And CARB staff are planning to bring a
18 proposed SIP revision to the Board for consideration in
19 early 2026. That revision will likely be focused on the
20 70 ppb ozone attainment plans, especially for extreme
21 ozone areas for which there is an option under the Clean
22 Air Act to allocate a portion of the emission reduction
23 commitment to new control techniques and technologies.

24 Despite all the challenges we face, the mission
25 of CARB and the purpose of the SIP is to meet air quality

1 standards and protect public health. CARB will continue
2 to use every tool at our disposal to continue our critical
3 work to clean the air, as the health and well-being of all
4 Californians depends on it.

5 [SLIDE CHANGE]

6 AQPSD AIR POLLUTION SPECIALIST MENDIOLA: This
7 concludes my presentation today. Thank you for your
8 attention.

9 CHAIR SANCHEZ: Thank you, Victor. We will now
10 hear from members of the public who have signed up to
11 speak on this item. I will ask the Board clerks to begin
12 calling on the public commenters.

13 BOARD CLERK FRENCH: Thank you, Chair Sanchez.
14 Public sign-up closure for this item for 25-7-2 will be at
15 11:10 a.m. We currently have nine public commenters to
16 speak in person. I apologize in advance if I mispronounce
17 your name and I would like to remind all commenters to
18 please speak slowly and clearly for our interpreters and
19 court reporter.

20 The first in-person public commenter is Gavin
21 Bruce.

22 GAVIN BRUCE: Thank you. Good morning. Thanks
23 for the opportunity to speak today. My name is Gavin
24 Bruce and I'm a -- almost lifelong residents of Modesto in
25 Stanislaus County. And I started working for Valley

1 Improvement Projects, which is an environmental justice
2 and social justice organization there in the spring.

3 And since starting there, I've been learning a
4 lot of things and been surprised by a lot of things. I
5 would say that something I'm not surprised of is the
6 quality of air in the Central Valley. Being a resident
7 there myself, you can actually see the poor air quality on
8 many days throughout the year.

9 But the thing that has been surprising has been
10 some of the lax regulation and the shortfalls of our
11 regulatory bodies and being able to control and protect
12 our communities from poor air quality in the valley. It
13 is related to the SIP, but I'll bring up one thing is the
14 fact that the Landfill Methane Regulation hasn't been
15 updated in 15 years. I'll -- I do commend the staff and
16 also the Board for coming up with a draft for those
17 updates that you all are going to be discussing in
18 November.

19 So I commend you all for that and just want to
20 reiterate the importance of regular monitoring of the
21 surface emissions for methane, and also the use of
22 technology like satellites and drones to be able to get --
23 to be able to get the emissions from some of those areas
24 that are too steep to access by foot, also, reducing the
25 temperatures, so that the gas collection pipes don't melt,

1 because that has been an issue, and then lastly, the
2 importance of transparency with the public especially
3 those communities that live around the landfills and their
4 ability to be able to get real-time information about
5 that.

6 Also, related to the SIP, some of these things
7 that have come up like the nitrogen oxides from soil
8 fertilizer and the ammonium from soil fertilizer, and the
9 PM2.5 from dust needs to be regulated in the SIP also.
10 There are a lot of regenerative ag practices that the --
11 that you all can incentivize for the farmers there that
12 take care of many different issues and are actually better
13 for farm yields and better for crops. And I strongly
14 propose that you push those as well.

15 BOARD CLERK FRENCH: Thank you. That concludes
16 your time.

17 GAVIN BRUCE: Thank you.

18 RYAN KENNY: Hi. Good morning, Chair Sanchez,
19 members of the Board. I'm Ryan Kenny with Clean Energy.
20 We are -- we share your concern about the impending
21 emissions impacts to our state. Increases in ozone and
22 PM2.5 will occur if heavy-duty diesel trucks are not
23 displaced in the near and intermediate terms. In fact,
24 new Class 7 and 8 trucks are rather absent in product
25 availability at dealers in California. And used diesels

1 are the truck of choice right now.

2 Data shows that most of the ZEV truck purchases
3 have been Classes 2B to 3, not 7 and 8. Besides the real
4 threat to California receiving federal highway funds, the
5 larger problem of health impacts to Californians
6 particularly in the South Coast and San Joaquin Valley
7 areas continues to be at stake. We were pleased to ready
8 Mr. Grundler's quote recently in Politico stating to the
9 effect that, as a result of actions take by the federal
10 government, breathers in California find themselves in an
11 enormous emissions reduction hole. We agree. That is why
12 it is more critical than every for CARB and the clean tech
13 industry to work together right now hand-in-hand to find
14 innovative ways to address mobile source emissions
15 impacting our disadvantaged communities.

16 Specifically, we need CARB to send strong policy
17 signals that encourage fleets who choose to purchase
18 internal combustion engines over a heavy-duty ZEV, that
19 those purchases are clean truck purchases at 50 milligrams
20 or less not 200 milligrams NOx trucks, as many of them are
21 now. By doing so, that enormous emission reductions hole
22 that Mr. Grundler referenced earlier this week in Politico
23 will be less daunting and California breathers will be
24 able to breathe easier.

25 Again, a significant part of the solution to this

1 problem is for CARB and the cleantech industry to work
2 together right now to find innovative ways to address
3 mobile source emissions impacting our disadvantaged
4 communities.

5 Thank you.

6 BOARD CLERK FRENCH: Thank you.

7 BILL MAGAVERN: Good morning. Bill Magavern with
8 the Coalition for Clean Air. Congratulations to Chair
9 Sanchez on your first Board meeting and to Board Member
10 Takvorian on your well-deserved appointment to the
11 Community Air Protection Committee.

12 The State Implementation Plan is a very important
13 document. And I think the staff presentation showed that
14 the progress that we've made over the years demonstrates
15 that when we have smart regulation backed by enforcement,
16 we get results. And so we need to build on that, because
17 unfortunately, despite the progress that we've made, we
18 still have too many Californians breathing unhealthy air.
19 Thousands of Californians die every year because of air
20 pollution. And we now have a federal administration that
21 is making that worse across the Board and really launching
22 attacks on our health.

23 Unfortunately, that means that the State and the
24 air districts need to do more. And in South Coast, we've
25 seen actually the Air District recently has failed to take

1 actions to reduce pollution from appliances and from the
2 seaports. What we need to see both from the State and the
3 districts a number of measures. I'll just name a few.
4 One is Indirect Source Review rules to limit the pollution
5 from large freight facilities, like ports. The second is
6 to retire the dirtiest old diesel trucks that are on the
7 road that account for a disproportionate amount of the
8 emissions. Enforcement of our best available control
9 technology and retrofit control technology for stationary
10 sources, and also additional reductions on the particulate
11 emissions from wood burning.

12 Thank you very much.

13 NICOLE RICE: Good morning, Madam Chair and
14 members. Nicole Rice, President of the California
15 Renewable Transportation Alliance. And I'm here today to
16 urge CARB to act now in recognizing the vital role clean
17 combustion trucks can play in closing the emissions gap in
18 the 2022 SIP and keeping California on track to meet
19 federal air quality attainment.

20 These trucks offer immediate, scalable benefits
21 that shouldn't be overlooked. Staff's prognosis is clear,
22 without key SIP control measures, emissions will rise, and
23 the public health will suffer. But we should not overlook
24 what can be achieved with clean combustion options like
25 low NOx renewable trucks that are available today. While

1 CARB cannot currently mandate its ZEV strategy, your
2 leadership has already moved the market towards the most
3 stringent NOx standard in the nation currently. With
4 clear direction on the purchase and use of these trucks,
5 and the right level of market certainty, CARB can continue
6 to voluntarily drive innovation and adoption amid
7 regulatory uncertainty.

8 A recent study about Energy Vision found that RNG
9 trucks can deliver 88 percent of the health benefits of
10 electric trucks and can cut NOx emissions by over 94
11 percent, nearly matching electric trucks. And the recent
12 UCR study also showed that replacing older trucks with
13 2027 certified low NOx models can achieve, or rather
14 account, for 95 percent of NOx emission reductions through
15 2045. While fully transitioning to ZEV post '27 only adds
16 an additional five percent reduction. So combined with
17 the co-benefits of using RNG fuel, low NOx natural gas
18 trucks become a powerful and effective tool to our
19 mid-transition strategy.

20 Thank you.

21 MARK ROSE: Good morning, Madam Chair and members
22 of the Board. My name is a Mark Rose. I am a Senior
23 Clear Air Program Manager for National Parks Conservation
24 Association. For decades NPCA has worked to clean air in
25 California and in some of the nation's most polluted

1 national parks.

2 I want to begin by congratulating the Valley Air
3 district and CARB for finally meeting the 1997 annual
4 PM2.5 standard. I was saddened to hear however that EPA
5 found that the valley did not meet the 1997 ozone
6 saturn -- ozone standard. And I'm also concerned by
7 monitoring data that shows the valley likely failed to
8 meet the 2006 24-hour PM2.5 standard at the end of last
9 year, despite this Board granting the District an
10 additional five-year delay.

11 While EPA is dragging its feet on making that
12 determination, the Clear air Act is clear, the State is
13 required to develop a new five percent annual reduction
14 SIP by the end of this year. We've already seen how
15 repeated years, long delays, and finalizing SIPs play out
16 for communities. And so I'm asking this Board to please
17 direct CARB staff to immediately begin work on a new SIP
18 for the 2006 standard.

19 NPCA has a really long track record of supporting
20 defending CARB various mobile source rules, both
21 throughout advocacy as well as in the courts. While we
22 agree that the actions taken to stop California's Mobile
23 Source rules are likely illegal, for the people breathing
24 the air on the ground in California, these actions will
25 delay and -- or prevent these vital rules from being

1 implemented. CARB and the air districts thus have no
2 choice but to seek more reductions from stationary and
3 area sources in the state.

4 NPCA has submitted written comments today with
5 more detailed information on controls that we and other
6 allies have been asking for many, many years. They
7 include: banning unnecessary residential wood burning for
8 purely aesthetic reasons, which contributes over five tons
9 per day of direct PM2.5 emissions in the winter in the
10 valley; completing research and developing control
11 strategies for NOx emissions from fertilized fields; and
12 lastly, I'll point you to the expert analysis that we
13 included in our written comments that points to numerous
14 controls for combustion turbines, spoilers, process
15 heaters and internal combustion engines.

16 Thank you.

17 BOARD CLERK FRENCH: Thank you. That concludes
18 your time.

19 Next is Laura Plascencia.

20 LAURA PLASCENCIA: Hi. Good morning, Board. My
21 name is Laura Plascencia and I'm with Valley Improvement
22 Projects. And I'm here from Stanislaus County, along with
23 a couple other community members to share our frustration
24 about the State Implementation Plan not being ambitious
25 enough. We here in the San Joaquin Valley, we live along

1 the most polluted air basin in the U.S. for fine particles
2 and ozone standards and some that haven't been passed
3 since the Clean Air Act in 1988. The 1997 8-hour ozone
4 standard just passed after 20 years of waiting, and we are
5 at a critical time and we can't continue to wait another
6 20 years.

7 Our geography is a unique topography that enables
8 bad air quality to concentrate and our geography is not
9 going to change, so we must change and get away from
10 pollution creating processes. The Air District and CARB
11 are moving too slow, causing higher rates in asthma and
12 low birth weights, and cardiac and respiratory issues are
13 already highly burdened across the Central Valley, as the
14 CalEnviroScreen shows.

15 In my community in any room that you walk into,
16 there are at least 5 to 10 people with asthma or with at
17 least one family member with asthma or cardiac or
18 respiratory disease.

19 Our people, we must start prioritizing the
20 quality of life over profits and begin accounting for
21 other costs including social, medical, health, other
22 social costs and costs of people, parents having to miss
23 work, along with youth having to miss school. Our people
24 deserve better protections and more regulations on ammonia
25 from fertilizers and dairies, nitrous oxides from

1 fertilizer fields and volatile organic compounds from
2 pesticides, along with more stringent Indirect Source
3 Rule, which takes into consideration more of the
4 cumulative impacts, especially to help prevent pollution
5 burdening companies from coming to areas that already
6 pollution burdened. Thank you.

7 BOARD CLERK FRENCH: Next is Maria Ramos.

8 MARIA RAMOS(through interpreter): Good morning.
9 Thank you for your time. My name is Maria Ramos. I'm a
10 promoter in the community and I work for the Valley
11 Improvement Project. I'm coming from the area of Modesto
12 in Stanislaus County where I live. And my example is I
13 have a nephew who suffer from asthma. And we have to take
14 him very often to the hospital. We are very worried for
15 him. And this is very bothering to every day issue. And
16 this is due to the emissions in the air. Also, all of
17 these are -- it's affecting our lungs, as well as the
18 pesticides and all pollution -- pollutants. Altogether,
19 we would like for them to be regulated. Thank you.

20 AOLY VILCHEZ(through interpreter): Good morning.
21 My name is Aoly Vilchez. I work in outreach for the
22 Valley Improvement Project. I'm bringing some example
23 about the works in my community. I actually live in
24 Modesto, but I work all over Stanislaus County. I would
25 like to present to you what I hear in my community. Our

1 main concern is the use of pesticides, the regulations
2 that they have about it and the restrictions. We would
3 like to know if they are in compliance.

4 I want to talk about my son. He's in high
5 school. He attends Joseph Gregori High School. They have
6 about 2,000 students, and just in the last week we have
7 three alerts of pesticides being used. We have four or
8 five schools that they are targets, because they are in
9 pesticide fields where they use pesticides. We would like
10 the restrictions not to be only during the school hours,
11 but also after school. And during the weekends as well,
12 that they -- because they go to practice sports during
13 those days, and we would like for you to pay more
14 attention in the regulations and restrictions because our
15 kids are our future.

16 Thank you for giving me the opportunity to share
17 the worries of my community. Thank you.

18 BOARD CLERK FRENCH: Kimberly Burr.

19 KIMBERLY BURR: Hi. My name is Kimberly Burr and
20 I'm coming from Sonoma County, Forestville, on the Russian
21 River. And I've started coming to the Air Resources Board
22 meetings just to basically learn as much as I can. And I
23 understand that you guys are really good at building the
24 and relying on models to calculate statewide emissions.
25 And you put out a report even on smoke from fires and the

1 historic presence of fires in the state, which I've been
2 scanning as fast as I can. They're very interesting.

3 My current questions relate to -- and it goes
4 towards the SIP agenda item in a away, because it's -- I
5 may not be here for the public comment later, but I'd like
6 to see in the SIPs some real -- and I haven't seen a kind
7 of detailed accounting for some industries. And I want to
8 know how many -- how often models are updated with the new
9 scientific information. Some -- one of the industries I'm
10 particularly interested in is logging industry, because
11 logging has been accelerated in the state, because of all
12 the fires. But I think since the fires have come and
13 we've -- you know, we've learned so much that maybe it's
14 time to reevaluate our approach. But also to know what
15 we're supporting -- for supporting massive logging, then
16 what are the emissions associated with that and how many
17 trees are we losing that could be standing to sequester
18 carbon.

19 We're always very much in favor of defensible
20 space and home hardening, but very concerned that logging
21 has been ramped up. Millions and millions of acres are
22 being treated. But I don't think we have a good handle on
23 what the emissions are associated with that activity like
24 chainsaws. These two-stroke engines that are going --

25 BOARD CLERK FRENCH: Thank you. That concludes

1 your time.

2 KIMBERLY BURR: Oh, my gosh -- all day and
3 they're highly polluting. So I'll write some written
4 comments. Thank you for your time.

5 BOARD CLERK FRENCH: Next is Saha[SIC]
6 Deslauriers.

7 SARAH DESLAURIERS: It's Sarah Deslauriers with
8 the California Association of Sanitation Agencies
9 representing 90 percent of the publicly wastewater
10 treatment works.

11 And just here today -- welcome. I just want to
12 say welcome to the Chair position. Chair Sanchez, very
13 excited to be working with you and Board members, and also
14 my comments and question are for staff.

15 Just thank you for the presentation today on the
16 Stated Implementation Plans across the state. My comments
17 and question today focus on the ozone nonattainment status
18 of the South Coast Air Basin in particular. We know San
19 Joaquin Valley is also nonattainment as mentioned, as well
20 as the implications of continued nonattainment largely a
21 result of heavy-duty vehicle emissions.

22 Upon failing to meet the 1997 ozone standard by
23 2023, as was mentioned, the Clean Air Act sections 179 and
24 185 allow the U.S. EPA to withhold federal funding,
25 increase offsetting requirements, and impose an annual

1 penalty on major stationary sources, including at
2 wastewater treatment plants. Southern California
3 wastewater treatment plants estimate this to be about
4 \$800,000 per year going forward, which can impact the
5 ability for essential public services to obtain a permit
6 for their local air district too for wastewater-derived
7 renewable natural gas projects in fact.

8 The State Implementation Plan update, as
9 presented, specifically I think slide 18 focused on
10 zero-emission vehicles, which delayed attainment for
11 focusing on long-term reductions rather than using
12 existing near-term reduction tools. UC Riverside, as was
13 mentioned back in September, and other meetings has
14 recently stated that 95 percent of the NOx emissions
15 reductions between 2025 and 2040 for heavy-duty vehicles
16 could come from fleet turnover to ultra low NOx vehicles.
17 Will this be included as an alternative in your risk
18 management assessment. That is the question I have for
19 folks to look at the broad picture.

20 We're not opposed to zero-emission vehicles.
21 We're early adopters. Definitely want to utilize all
22 tools to achieve attainment and resilience and we thank
23 you for the opportunity to comment. And CASA numbers do
24 look forward to continuing to work with CARB staff going
25 on the 15-day changes for ACF, really looking at the

1 potential for use of low NOx RNG-fueled vehicles to do
2 both. Thank you.

3 BOARD CLERK FRENCH: Next is Larry Hanson.

4 LARRY HANSON: Larry Hanson from Forest
5 Unlimited. So, we're based in Sonoma County, but we work
6 with a number of organizations -- statewide organizations.
7 So, you know, we're taken back by the federal government's
8 impacts. And we -- so we want to give our support to the
9 work and efforts by the Air Resources Board to protect
10 California's air quality. And we wanted to say we support
11 your work and we wanted you to know that.

12 Thank you.

13 BOARD CLERK FRENCH: Next is Gustavo Agurro
14 Aguirre.

15 GUSTAVO AGUIRRE, JR.: How's it going everyone.
16 Buenos dias. Gustavo Aguirre, Jr. with Central California
17 Asthma Collaborative from the Bakersfield office, the
18 Director of Climate Equity and Environmental Justice.
19 Chair and staff. Lauren, welcome to the -- to the CARB
20 Board. You maybe -- as a Board member, you probably don't
21 remember me, but years back, we, in coalition, would work
22 to advocate for some methane monitoring. And I see it's
23 later in the agenda, so it's nice to see a full circle
24 here. And Diane, congratulations. I know you've been a
25 big advocate for AB 617 communities and remember doing

1 some toxic tours with you in early AB 617 conversation in
2 Shafter along with John Balmes and other -- a bunch of
3 other folks, so...

4 Central California Asthma Collaborative emphasis
5 on a strong SIP especially for nonattainment areas like
6 the San Joaquin Valley is very important. A lot of the
7 work that we -- some of the work that we do emphasizes on
8 the tails of AB 617 and the Local Community Emission
9 Reduction Program. And through that, we've seen work like
10 the pesticide notification comes something to be a program
11 that is now statewide. And through that, you know, we
12 determined and saw that there was a huge gap in the fact
13 of pesticide regulation and curbing VOC emissions from
14 pesticide use in our communities. So, you know, strong
15 emphasis in making sure that this SIP moving forward
16 includes, acknowledges, and regulates CARB's authority to
17 regulate VOC emissions from pesticide applications moving
18 forward.

19 And so, with the community self-determination
20 have found that pesticide is, as you heard from VIP
21 members today, something that is very important to us in
22 the San Joaquin Valley. So thank you for your attention.
23 Thank you.

24 BOARD CLERK FRENCH: Next is Brianda Castro.

25 BRIANDA CASTRO: Good morning, Chair Sanchez and

1 members of the Board. My name is Brianda Castro. I was
2 raised in Shafter, California. I now, which is an AB 617
3 community. I now live in Bakersfield, California, but I'm
4 here today with the Central California Asthma
5 Collaborative. As my colleague, Gustavo Aguirre, Jr.
6 just mentioned, we are a nonprofit of organization serving
7 the San -- the rural communities of the San Joaquin Valley
8 region, which we all saw during the presentation today is
9 frequently nominated for the worst air quality in the
10 nation. We are also part of the Building Energy Equity
11 and Power coalition. That is a group of organizations
12 across the state working towards equitable solutions for
13 home decarbonization.

14 In our San Joaquin valley communities, asthma
15 rates are raising at a dangerous rate -- or at a dangerous
16 level. For many families, it feels like there is no
17 refuge. Not only is our air polluted, but our homes often
18 lack adequate infrastructure. Many households don't have
19 air conditioning in areas where temperatures regularly
20 reach triple digits. We work with communities that want
21 and deserve better, communities that are developing local
22 communities emissions reduction plans and local solutions.
23 Many have identified home decarbonization as a needed
24 measure.

25 We are excited to have Diane as Co-Chair of the

1 Community Air Protection Program. Thank you for your
2 commitment -- to your -- for your commitment to our
3 communities. The BEEP coalition has held statewide
4 listening sessions to learn directly from residents about
5 home decarbonization and the challenges that they face,
6 from high cost to lack of access to clean technologies.
7 We ask that CARB work closely with BEEP and prioritize
8 this building of -- building and appliance emission
9 standard as a measure in the State Implementation Plan to
10 create equitable and real solutions that do not displace
11 or leave our communities behind.

12 Our families are doing the very best that they
13 can to protect our health and our future. We need CARB to
14 match that commitment with strong action that ensures
15 clean air --

16 BOARD CLERK MOORE: Thank you. That concludes
17 your time.

18 BRIANDA CASTRO: Oh -- health homes, equitable --
19 true environmental justice in the San Joaquin Valley and
20 across the state. Thank you so much.

21 BOARD CLERK MOORE: Thank you.

22 We will now turn to Zoom commenters. We
23 currently have 13 commenters with their hands raised in
24 Zoom. I apologize in advance if mispronounce your name.
25 I would like to remind all commenters to speak slowly and

1 clearly for our interpreters and court reporter. Also, a
2 friendly reminder that comment speaker sign-up closure for
3 this item is at 11:10 a.m.

4 The first Five commenters on Zoom are Brent
5 Newell, Ian Faloon, Vivyana Prado, Tyler Szeto, and Adria
6 Vidales.

7 Brent Newell, I have activated your mic. Please
8 unmute and you may begin.

9 BRENT NEWELL: Good morning, Madam Chair and
10 members of the Board. My name is Brent Newell. I
11 represent the Central Valley Air Quality Coalition. I
12 have three points today.

13 First, the staff presentation ignores two
14 critical recent failures to attain ambient air quality
15 standards. EPA recently found the valley failed to attain
16 the 1997 ozone standard. CARB and the District had more
17 than 20 years to meet this standard. Yet, they failed to
18 meet the standard. The valley also recently failed to
19 attain 2006 24-hour PM2.5 standard by the December 31st,
20 2024 deadline.

21 The standard is 35 micrograms per cubic meter and
22 the design value was 48 micrograms. That's 137 percent of
23 the standard. These two failures to attain will trigger
24 and use up the Smog Check Contingency Measure. The
25 failure to attain the 2006 PM2.5 standard will trigger

1 PM2.5 contingency measures. These failures will leave the
2 valley with contingency measures which EPA has conceded
3 are legally inadequate for all standards.

4 Second, something is obviously not working here.
5 With attainment plans consistently failing, it is long
6 past time for CARB to correct emissions inventories,
7 correct control measures that do not reduce emissions as
8 claimed, and correct attainment demonstrations that miss
9 the mark.

10 Third, the San Joaquin Valley stationary source
11 review recently provides a microcosm for what is not
12 working here. The review glosses over the emission
13 reduction credit equivalency failure in the San Joaquin
14 Valley. Given CARB's 2020 investigation and findings
15 regarding that failure and subsequent credit laundering,
16 it is shocking that the review did not investigate whether
17 stationary sources had valid emission reduction credits as
18 CVAQ had requested. The review looked the other way. I
19 strongly urge the Board to direct staff to amend this
20 review.

21 BOARD CLERK MOORE: Thank you.

22 Our next commenter is Ian Faloona. I have
23 activated your microphone. Please unmute and you may
24 begin.

25 DR. IAN FALOONA: Thank you very much. This is

1 Ian Faloona. I'm an atmospheric scientist at UC Davis.

2 I wanted to mention a few points here. The
3 presentation that Victor showed, while there have been
4 great achievements made since the turn of the century,
5 those have all but evaporated since the last about -- for
6 the last about decade, save possibly for the Sacramento
7 metropolitan area. In fact, the SoCal basin is actively
8 pretty significantly increasing in ozone in the past 10
9 years. I have been vociferously advocating that this is
10 likely due to an underestimate of soil emissions,
11 primarily from agriculture.

12 And I know that CARB has put together the
13 scientific expert panel. The five members of the panel
14 were made up of people who only published on the low side
15 of soil emissions, three from the same group. And they --
16 in the report, they mention that there's a range of values
17 in the literature about these soil emissions of NOx, which
18 contribute to both ozone and PM, I should say, problems
19 that range from about 0.12 to 12 and a half in these units
20 of gigagrams of nitrogen per month. That's two orders of
21 magnitude range in the estimates in the literature. CARB
22 is using the value at the lowest end of that.

23 And the expert panel did not decide on -- come
24 down and give a best estimate, which is obviously above
25 that lowest value, which is used in all these SIP modeling

1 efforts. I went back and compiled all the SIP estimates
2 for the past 20 years and it's typically off by five to 25
3 parts per billion in ozone on the estimated dates of SIP
4 modeling. So the models are not working correctly and I
5 suggest we really need to put more effort into
6 understanding the soil emissions.

7 BOARD CLERK MOORE: Thank you.

8 Our next commenter is Vivyana Prado. I have
9 activated your microphone. Please unmute and you may
10 begin.

11 VIVYANA PRADO: Hi. My name is Vivyana Prado and
12 I'm a legal advocate with Leadership Counsel for Justice
13 and Accountability. And I'm also a resident of Tulare
14 County. I'm here today to urge CARB and, by extension,
15 the San Joaquin Valley Air District to reaffirms its role
16 as a public health agency and its responsibility to attain
17 healthy air quality for the San Joaquin Valley.
18 Leadership Counsel works alongside community members all
19 throughout the San Joaquin Valley. And there are many
20 concerns regarding air quality, rightfully so. The
21 deadlines for attainment of the 2006 PM2.5 and 1997 ozone
22 standards have long passed and there are no more valid
23 excuses as to why CARB and the San Joaquin Valley Air
24 District have not created real change in the valley.

25 Contingency measures that immediately reduce

1 ozone and PM2.5 levels must be implemented now in the
2 valley, including the most stringent Indirect Source Rules
3 possible, both in the valley and statewide, dirty off-road
4 agricultural equipment must be phased out, and there must
5 be more stringent NOx and ammonia emission regulations.
6 CARB continues to incentivize dairy digesters without
7 strong NOx and ammonia emission regulations. And this
8 directly impacts frontline communities who are forced to
9 breathe this contaminated air and smell the noxious odors.
10 CARB must regulate NOx from irrigated agriculture and
11 dairies in coordination with the State Water Resource
12 Control Board and the Regional Water Quality Control
13 Board's nitrate control programs.

14 We cannot afford to wait and see what happens
15 with mobile source waivers to implement effective
16 contingency measures in California. There are other
17 regulatory tools at your disposal. We do not want to be
18 here again in eight years or next year when the next
19 couple of standard attainment dates come and go and have
20 these same conversations. Valley residents deserve to
21 breathe clean air.

22 BOARD CLERK MOORE: Thank you. Our next
23 commenter is Tyler Szeto. I have activated your
24 microphone. Please unmute and you may begin.

25 TYLER SZETO: Good morning. My name is Tyler

1 Szeto and I'm with Earthjustice. Having grown up in Los
2 Angeles, I'm no stranger to air pollution. And I now work
3 with community groups in the Central Valley to address its
4 impacts firsthand. As staff's presentation showed, the
5 San Joaquin Valley is the most polluted air basin in the
6 country for particulate matter and the valley has a long
7 history of failing to meet federal Clean Air Act standards
8 on time both for particulate matter and for ozone, as
9 shown by taking over 25 years to meet the 1997 annual
10 PM2.5 standard and continuing to fail to meet the 1997
11 8-hour ozone standard.

12 Community members deserve more timely action from
13 the State and need the agency to implement long overdue
14 community solutions. One community solution I would like
15 to highlight is the need to regulate ammonia sources from
16 agriculture, mainly dairy operations, livestock waste
17 management, and fertilizer application. California has
18 over 1.7 million dairy cows and 90 percent of those cows
19 are raised in the Central Valley in close quarters on
20 large dairies concentrated on just 11 percent of the
21 State's land.

22 CARB needs to do more, both on its own and to
23 push the Valley Air District to adopt the most stringent
24 pollution control measures possible to protect public
25 health, especially for our most vulnerable communities.

1 Thank you.

2 BOARD CLERK MOORE: Thank you. Our next
3 commenter is Adria Vidales. After Adria, we will hear
4 from Jane Sellen, Jasmin Martinez, Kai Wong, Ariella
5 Serrano.

6 Adria, I've activated your microphone. Please
7 unmute and you may begin.

8 ADRIA VIDALES: Good morning. My name is Adria
9 Vidales. I'm with Little Manila Rising and I live and
10 work in Stockton, California. I live in an area
11 surrounded by agriculture and my mother has asthma from
12 growing up around agricultural dust, pesticides, and other
13 air pollutants. Watching her struggle over the years has
14 made me realize how important clean air is for everybody
15 in our community.

16 Living in the Central Valley means living in the
17 most polluted air basin for particulate matter in the
18 United States. So many people in our region suffer the
19 effects of abundant air pollution, including particulate
20 matter 2.5 and nitrous oxide. The San Joaquin Valley has
21 been failing air standards for decades. Agencies must
22 follow through on past commitments and take real
23 responsibility for protecting public health. One way CARB
24 can step you and support our community and our efforts to
25 achieve clean air is to regulate ammonia sources from

1 agriculture, including dairy operations, livestock waste
2 management, and fertilizer application.

3 Although domestic ammonia has been added to the
4 2025 PM2.5 SIP, agricultural ammonia needs to be regulated
5 as a pollutant in our community. Little Manila Rising has
6 been doing asthma mitigation work for years now and we
7 need institutional support from organizations like CARB to
8 clean up our air basin and prevent unnecessary deaths,
9 illnesses, and suffering from air pollution. Please
10 continue to listen to my peers and myself and clean up the
11 Central Valley now.

12 Thank you.

13 BOARD CLERK MOORE: Thank you.

14 Jane Sellen, I have activated your microphone.
15 Please unmute and you may begin.

16 JANE SELLEN: Hi. Jane Sellen, Californians for
17 Pesticide Reform. For years, our coalition has called on
18 CARB to acknowledge and act on their undoubted authority
19 over toxic air contaminants, whether they're pesticides or
20 not. Per CARB, DPR has authority to regulate when, where,
21 and how pesticides are used, but crucially not how much.
22 It is CARB's job to regulate emissions, DPR's job to
23 regulate how industry can use pesticide products within
24 that emissions framework. So it's with great frustration
25 that we continue to see pesticide emissions siloed out of

1 air quality solutions and treated as somehow different.

2 Fumigant pesticides pose special public health
3 and air quality hazards. Approximately 32 million pounds
4 of 13 fumigants were applied in California in 2023, making
5 up more than 18 percent of all pesticides used in
6 California that year. All fumigants registered in
7 California are listed by the State as toxic air
8 contaminants and therefore subject to CARB emission
9 standards.

10 Fumigants contribute to the formation of VOCs,
11 while at least three fumigants, chloropicrin, metam
12 sodium, and dazomet have been shown to increase NOx
13 emissions from 7- to 100-fold. The effects -- the effect
14 of fumigant-induced NOx emissions would stand to last more
15 48 days. More than 11 million pounds of these three
16 fumigants we used in California in 2023.

17 All stages of fumigant lifecycle contribute to
18 greenhouse gas emissions, extraction, manufacturing,
19 transportation, storage, application, disposal, and
20 clean-up. And yet, CARB continues to treat this class of
21 air pollutants as untouchable and irrelevant. The
22 commitment in the San Joaquin Valley SIP to reduce ROG
23 emissions from 1,3-D by 0.4 tons by 2037 was a welcome
24 step, but was based on DPR's flawed non-occupational
25 bystander reg, which is flawed in so many ways, rather

1 than establishing weak commitments that lack the lack of
2 ambition in DPR's regs, CARB must set an overall air
3 quality context to guide DPR's rulemaking, not the other
4 way around.

5 BOARD CLERK MOORE: Thank you.

6 Jasmin Martinez, I've activate your microphone.
7 Please unmute and you may begin.

8 JASMIN MARTINEZ: Good morning. I'm Jasmin
9 Martinez, Kern County resident, and Coalition Coordinator
10 with the Central Valley Air Quality Coalition, or CVAQ.

11 I'm here to raise serious concerns about the
12 stationary sources review memo. Last July, the CARB Board
13 directed staff to conduct the stationary sources review
14 after years of advocacy. We were hopeful that this would
15 finally be a step toward much needed transparency and a
16 plan of action for direct emission reductions from some of
17 our region's biggest polluters.

18 Instead, the process produced a memo developed
19 behind closed doors, without meaningful engagement or
20 analysis. The review fails to provide a full accounting
21 of critical information originally requested from
22 compliance history to emission reduction credits used.
23 They also only selected 42 permit units and is based off
24 self-reported data that hasn't been vetted. CVAQ asked
25 for this review back in 2019, because the valley remains

1 the most polluted air basin in the nation. And large
2 stationary sources, biomass, glass, and power plants,
3 along with oil and gas operations we have here in Kern
4 County are major contributors to PM2.5 and NOx emissions.

5 Many of them are located within already
6 overburdened communities. And our currently clean air
7 plans have massive gaps. We need to ensure large sources
8 have the cleanest technologies. With federal threats and
9 attacks, we need to continue to combat those, but also
10 find ways to move forward. What is in California's
11 control is even more important now. And stationary
12 sources are within CARB and the Valley Air District's
13 immediate control.

14 We urge the CARB Board to make this memo part of
15 a continuing conversation needed on stationary sources
16 with CVAQ and EJ communities to identify emission
17 reductions available and address community concerns. We
18 also ask that staff release all of the data used in their
19 view, so the public can see what was reviewed and how.
20 How much more progress are we leaving on the table by not
21 effectively regulating stationary sources, major dairy
22 operations, and other agricultural operations
23 strengthening the Valley's Indirect Source Rule, and
24 expanding best practices from the Community Air Protection
25 Program.

1 Also, congrats, Diane.

2 BOARD CLERK MOORE: Thank you.

3 Kai Wong. I have activated your microphone.
4 Please unmute and you may begin.

5 KAI WONG: Good morning. My name is Kai Wong
6 with Little Manila Rising. I'm a resident of South
7 Stockton and today, I'm sharing my story and concerns. I
8 live just a few block from the I-5, one of the most
9 heavily traveled freeways in the area. It contributes to
10 major air pollution and has a detrimental effect on our
11 community members. These community members who are made
12 up of the elderly, impoverished, or people of color face
13 significant challenges.

14 Every day, I see children coming out from schools
15 located next to the freeway being exposed to the poor air
16 quality. During my time with Little Manila Rising, I've
17 come to realize the importance of helping deploy free air
18 monitors that collect data and allow residents in
19 proximity to pollution sources check the current air
20 quality, helping them determine if it's safer to be
21 indoors that day.

22 Joining efforts with CVAQ member organizations
23 has helped us to further advocate for stronger regulations
24 that mitigate environmental pollution for communities
25 facing similar issues all across the Central Valley.

1 Exposure to all this pollution floating around can have
2 long-lasting effects, including increased risk of
3 respiratory diseases. Heavy-duty trucking not only
4 contributes to the decade-long failure of San Joaquin
5 Valley's air standards but it is also responsible for the
6 dangerous road conditions.

7 I would like to advocate for making the
8 deployment of zero-emission trucks a priority. Making
9 this a priority would strengthen protections for your
10 public health and keep my neighbors safe from being in
11 such a vulnerable state due to the permanent freeway.

12 Thank you.

13 BOARD CLERK MOORE: Thank you.

14 Ariella Serrano, I have activated your mic.
15 Please unmute and you may begin.

16 ARIELLA SERRANO: Thank you. Good morning, Chair
17 and Board members. My name is Ariella Serrano. I'm a
18 youth organizer with Little Manila Rising in South
19 Stockton. And growing up as a young person of color in
20 Stockton, I've seen and felt firsthand how environmental
21 injustice affects every part of our health and
22 opportunities. South Stockton continues to carry the
23 heaviest pollution burden, while other communities breathe
24 cleaner air.

25 And through my work through the Little Manila

1 Rising's youth programs, I work alongside youth who are
2 continuously building their environmental awareness and
3 learning to understand the conditions of their own
4 environment that many of us have grown up accepting as
5 normal. And through community education, youth-led
6 outreach and advocacy that reaches the regional and local
7 level, youth and I have been striving to bring forward our
8 lived experiences and stories that are too often missing
9 in decision-making spaces likes this one here today.

10 So, this San Joaquin Valley remains the most
11 polluted air basin in the nation for PM2.5, costing
12 hundreds of millions in preventable health impacts each
13 year. And I believe these numbers reflect real suffering,
14 lost lives, missed economic opportunities, and daily
15 struggles amongst our society and especially youth. And
16 as CARB shares updates of its State Implementation Plan, I
17 urge the Board to act on the most stringent measures used
18 anywhere in the U.S., including that the Indirect Source
19 Rule is implemented statewide, strengthening enforcement
20 on our best available control technology and our best
21 available retrofit control technology for all stationary
22 sources.

23 This enforcement I believe is essential, so that
24 new and existing facilities use the cleanest available
25 technologies instead of relying on outdated or ineffective

1 controls, an important and vital step to reducing
2 emissions where communities already suffer and are
3 burdened the most.

4 Thank you for your time providing comment today.

5 BOARD CLERK MOORE: Thank you.

6 We have five more commenters on Zoom who signed
7 up to speak during the public sign-up period. It's Bianca
8 Lopez, Byanka Santoyo, Christian Bisher, Sarah Aird, and
9 Gloria Alonso.

10 Bianca Lopez, I have activated your mic. Please
11 unmute and you may begin.

12 BIANCA LOPEZ: Thank you. Good morning. My name
13 is Bianca Lopez. I am co-founder of Valley Improvement
14 Projects, but I was also raised in LA and now live in the
15 Central Valley, and do work -- do environmental justice
16 and social justice work here in Stanislaus County on the
17 Northern San Joaquin Valley. It's very clear the San
18 Joaquin Valley has been failing air quality standards for
19 decades. And our residents continue to experience some of
20 the highest asthma rates and premature deaths in the
21 region.

22 I was grateful to hear that CARB's SIP
23 presentation understands the cost to our health. Agencies
24 must move beyond plans and promises and finally take
25 responsibility for protecting public health. First, under

1 the Clean Air Act, extreme nonattainment areas, like the
2 San Joaquin Valley, are required to implement the most
3 stringent feasible control measures. That means that the
4 Valley Air District should adopt Indirect Source Rule
5 provisions at least as strong as those already implemented
6 by the South Coast Air District, so that new warehouses,
7 distribution centers, and large developments don't
8 continue adding to our pollution burden.

9 Here, in Modesto, we see warehouses being built
10 with no actual company moving in. I'm thinking you build
11 it and they will come. We don't want them to come.

12 Second, CARB must acknowledge and act on its
13 authority to regulate volatile organic compounds from
14 pesticides. According to CARB's own State Implementation
15 Plan, pesticides are among the largest sources of VOC
16 emissions in the Central Valley during the summer months,
17 sometimes comparable to, or even exceeding, emissions from
18 cars. Yet, this source remains largely unreg -- I'm
19 sorry. I'm struggling to breathe. We need coordinated
20 oversight between CARB and DPR and continuous air
21 monitoring in the top 10 pesticide used counties.

22 Third, CARB must and should ensure vehicle
23 retirement programs are aligned across the regions. The
24 Valley Air District currently retires vehicles from 2006
25 and older, while DCAP Program allows retirement of 2010

1 and older vehicles. Aligning these programs would expand
2 access, reduce emissions faster, and making incentives --

3 BOARD CLERK MOORE: Thank you. That concludes
4 your time.

5 BIANCA LOPEZ: -- air, especially here on --

6 BOARD CLERK MOORE: Our next commenter is Byanka
7 Santoyo. I have activated your microphone. Please unmute
8 and you may begin.

9 BYANKA SANTOYO: Good morning. Good morning,
10 Board members. Thank you for giving us this space to give
11 our comments. My name is Byanka Santoyo. I'm a Community
12 Organizer for Center on Race, Poverty, and the
13 Environment, but also part of the AB 617 from the first
14 year communities, as in Shafter as a part of CSC. I am
15 also a co-lead for the AB 617 Arvin and Lamont part as --
16 as -- because I am a resident from the -- of the
17 community.

18 I've seen many struggles from these communities,
19 especially the rural communities, how industry has
20 impacted their power and not being attained in any of the
21 enforcement that the Air District has as a regulation.
22 Through the AB 617, we've seen the hurdles of how industry
23 has a big impact in the air pollution, but yet no
24 attainment has been done. As a resident of Arvin, I've
25 been registering to the Air District Valley monitoring.

1 And every day I get notifications that we're up into the
2 third level every day. Yet, it does not reflect what we
3 see in our personal lives that there is no attainment.

4 We see two of the biggest polluters here in the
5 valley, which is the oil and gas and also the truck
6 industry and pesticides. Pesticide has been a big
7 priority through the AB 617, as many of the Board members
8 have seen, especially because we brought it up to you guys
9 since year one, and yet we still haven't been able to
10 attain it. We really need your guys's support in making
11 this very stringent regulations possible and enforce it
12 for each Valley Air District to implement in their -- in
13 the area, because we're not attaining any of them.

14 Thank you.

15 BOARD CLERK MOORE: Thank you.

16 Christian Bisher, I have activated your
17 microphone. Please unmute and you may begin.

18 CHRISTIAN BISHER: Good morning. My name is
19 Christian Bisher. I am a resident of the San Joaquin
20 Valley and I work for the Central California Environmental
21 Justice Network. I understand the difficulties associated
22 with the SIP and their federal actions. This past
23 California legislative session, there was a bill, Garcia
24 AB 914, that discussed the possibility of addressing
25 mobile emissions through the State's Airborne Toxic

1 Control Measures Regulation.

2 I would be interested in hearing from CARB staff
3 at some point in the future as to the possibility of this
4 pathway to address mobile emissions and if this pathway
5 would still be subject to federal preemption. I would
6 also like to mention that San Joaquin Valley stationary
7 source emissions for SIP purposes remains self-reported by
8 the polluting sources.

9 While some local air districts are verifying
10 submitted stationary source emissions, I would love to see
11 CARB staff establish some basic requirements so that all
12 air districts are required to verify the annual emissions
13 submitted to them are truthful.

14 And then lastly, I recently read and watched Dr.
15 Cliff's comments to the U.S. EPA regarding the 2009
16 endangerment finding. It can be difficult for local
17 residents and organizations to also keep track of what is
18 going on federally and when we can engage. In the next
19 three years, if CARB staff are planning to engage on the
20 federal level and think it would useful for local
21 residents or organizations to also participate, I would
22 encourage CARB to share this information in a distribution
23 list email or by contacting some of the organizations
24 directly. We often work in coalitions and I believe we
25 would all work with CARB on federal issues.

1 Thank you.

2 BOARD CLERK MOORE: Thank you.

3 Our next commenter is Sarah Aird. I have
4 activated your microphone. Please unmute and you may
5 begin.

6 SARAH AIRD: Good morning. Sarah Aird with
7 Californians for Pesticide Reform. We work closely with
8 farmworker communities in the San Joaquin Valley whose
9 health has been devastated by pesticide exposure and who
10 suffer some of the highest rates of asthma, respiratory
11 illness, cancer, and chronic disease in California.

12 The San Joaquin Valley remains the nation's most
13 polluted air basin for fine particles and among the worst
14 for ozone. And residents continue to pay the price.

15 The valley remains out of compliance with
16 multiple federal PM2.5 and ozone standards, and these
17 repeated failures are unacceptable. Something is
18 fundamentally wrong with either CARB's emissions inventory
19 or the control strategy because the valley continues to
20 miss every major deadline. And one of the likely reasons
21 is that pesticides and the impacts of industrial
22 agriculture are not being adequately addressed in these
23 plans. For years, our coalition has urged CARB to
24 recognize and exercise its clear authority over pesticide
25 toxic air contaminants emissions.

1 Nearly, 50 pesticides are designated as toxic air
2 contaminants and tens of millions of pounds of these
3 pesticides are applied in the valley each year. Yet, CARB
4 SIP continues to largely exclude pesticide emissions, even
5 though pesticides contribute significantly to VOCs, which
6 drive ozone and impose severe health risks.

7 Pesticide use also generates particle-bound drift
8 and secondary organic aerosols, pollution pathways that
9 remain under-examined. The result is that frontline
10 Latino and low-income communities near farm fields
11 continue to suffer the worst exposures while being left
12 out of the State's core attainment strategy.

13 There are many steps that CARB could take,
14 including working with DPR to eliminate the discriminatory
15 12 percent pesticide VOC reduction target. California's
16 SIP sets pesticide VOC reduction goals for five ozone
17 nonattainment areas. Yet, the San Joaquin Valley is held
18 to only 12 percent, while all others are 20 percent. The
19 valley deserves equal protection. Raise the target to at
20 least 20 percent.

21 Second, Formally study and take into
22 consideration the impact that soil fumigants have on
23 creating degraded undernourished soil that then results in
24 the overuse of fertilizers that contribute to NOx and VOC
25 inventories.

1 And third, support organic and regenerative
2 agriculture in line with the SPM roadmap that
3 significantly contributes to public health by lowering
4 pesticides and fertilizer use, which would lead to lower
5 NOx and VOC emissions. Thank you.

6 BOARD CLERK MOORE: Thank you.

7 Gloria Alonso, have activated your mic. Please
8 unmute and you may begin.

9 GLORIA ALONSO: Good morning, Chair and Board
10 members. My name is Gloria Alonso and I am representing
11 Little Manila Rising. I work in South Stockton with
12 youth, like myself, who put their dedication into the
13 important efforts to change the palpable environmental
14 injustices surrounding our communities.

15 I'll begin by acknowledging that South Stockton
16 has benefited from a Community Air Protections Program, or
17 the CAP Program, over the past six years. Yet, our work
18 to reduce emissions at the local level is minimal compared
19 to our contribution to what all valley communities need.
20 The failure to attain the 1997 ozone and the 2006 PM2.5
21 standards is a certain reminder of this. There's a saying
22 in Spanish that goes, "You can't cover the sun with one
23 finger."

24 Our efforts through the CAP Program, though they
25 are small wins, most of them temporary, they're not enough

1 to cover the sun or to address the roots of chronic air
2 pollution instill fear and put limitations in our everyday
3 lives of valley residents. We require your leadership in
4 the SIP to closely examine what is going on in communities
5 with major stationary sources. You have the authority to
6 enforce the BACT and BARCT technologies to start with the
7 oldest -- and start with the oldest and largest polluters.

8 You also have the authority to ensure all
9 stationary sources have attained the valid and surplus
10 offsets, because the Air District's emissions reduction
11 credit equivalency system has failed NOx and VOx.

12 When I think about stationary sources, I remember
13 a community garden that my family and many community
14 members visit every single day that is located within one
15 mile of a biomass facility -- burning facility that
16 operates 24/7. Putting a magnifying glass on these
17 sources will help us rest assure that our communities can
18 enjoy outdoor activities safely.

19 If we are to live up to these commitments, it is
20 important to recognize that real change will come from how
21 your decisions reflect our priorities in the plan.

22 BOARD CLERK MOORE: Thank you. That concludes
23 public testimony for this item. I'll return the
24 microphone back to Chair Sanchez.

25 CHAIR SANCHEZ: Thank you. Thank you.

1 Staff, are there any issues that were raised in
2 the comments that you would like to address?

3 EXECUTIVE OFFICER CLIFF: No, Chair. Thank you.

4 CHAIR SANCHEZ: This is an informational item
5 only, so there is no need to close the record. Board
6 members, the floor is yours. Any questions?

7 Dr. Balmes.

8 BOARD MEMBER TAKVORIAN: Okay. Thank you. I
9 think this is an important -- the SIP is an important
10 opportunity and an important tool for us to check in on
11 progress throughout the state. And I really appreciate
12 CARB staff's work to present the current status and the
13 challenges that California is currently experiencing. I
14 know that the report rightly focused on the current
15 federal assault on the California rules and the impact
16 it's having on SIP compliance, but more importantly on the
17 health of Californians.

18 Clearly, the rollback of these regulations and
19 resources by the current federal administration will cause
20 Californians to be sick and many will die as a result. I
21 really appreciated the work that you all did to illustrate
22 that, starting with slide -- throughout the slideshow, but
23 particularly starting with slide 18 showing the NOx
24 increases, and then slides 19 and 20 showing the increased
25 deaths and cancers. And I think it's on slide 20 where

1 the three communities are illustrated. And I think this
2 is a message that really needs to be illuminated
3 throughout the state of California in all of our impacted
4 communities, particularly the 617 communities. And I know
5 that you're working to get that information out to
6 everyone in the State.

7 And I really appreciated the comments that we
8 received today, particularly from those who are living in
9 some of the most polluted communities. These are the
10 faces of the folks that will experience these health
11 effects. And so, while we're looking at numbers and we're
12 looking at plans, these are human beings, as we all know,
13 that are going to experience these devastating health
14 consequences.

15 And I know that CARB with the elimination of some
16 of the tools in the Advanced Clean Fleets and Locomotive
17 rules, that CARB is going to have to continue to push back
18 against these assaults, but also develop new ways,
19 alternative ways to move forward to reduce pollution in
20 our communities. And I know that's really the subject of
21 our next agenda item.

22 So I think as folks have said, we need to focus
23 locally as well as at the State level, so the focus is
24 going to be on the districts, as we've heard throughout
25 our testimony -- a lot of testimony today, and as many of

1 us have heard for many years, there continues to be
2 serious air pollution throughout the state in some of the
3 key regions, but particularly in the San Joaquin Valley.
4 And much of the noncompliance that we're seeing is an
5 ongoing issue. It is exacerbated by the federal assault,
6 but it is not a new issue.

7 So it's something that we really need to focus on
8 at the local level. And I think CARB needs to do all it
9 can to assist the air districts in enforcing the rules
10 that are on the books, as well as moving forward with new
11 rules that can address some of the key issues that
12 community members and stakeholders have brought up today,
13 specifically, rules to reduce ammonia, stopping
14 unnecessary wood burning, the retirement of old trucks and
15 also reduction of pesticides emissions.

16 And so in -- I think CARB is working to ensure
17 that the districts are enforcing their rules and looking
18 at their rules. And I think we need to focus as a Board
19 on that a little bit more and provide more assistance. So
20 I know, Dr. Cliff, that you sent a memo to the Board -- to
21 the CARB Board regarding the San Joaquin Valley Air
22 Pollution Control District Stationary Source Review. And
23 that report found substantial compliance.

24 However, as we all know, the valley is continuing
25 to experience serious air pollution. So, I think given

1 the situation, I'd like to request a future Board item,
2 where we would have the opportunity to hear that report,
3 the public would have the opportunity to provide input on
4 that report, and we would be able to figure out new ways
5 that we may be able to support the District, and that we
6 may be able to move forward. So that would be my request
7 and I guess a question coming out of -- coming out of this
8 item.

9 CHAIR SANCHEZ: Thank you, Ms. Takvorian. Staff,
10 I'll let you respond to that request and then I see we
11 have Dr. Pacheco-Werner from the Air District ready to
12 comment as well.

13 EXECUTIVE OFFICER CLIFF: Thank you, Chair, and
14 thank you, Ms. Takvorian. So, as you noted, we did an
15 extensive review of the District's program. We worked in
16 collaboration with the District. And although, you know,
17 it isn't a noticed item here today, so we, you know,
18 really aren't at liberty to discuss it substantively, we
19 did find that, you know, there was, you know, important
20 work that was being done and improvements in the
21 District's program that were obvious since the review that
22 was done several years ago.

23 I think back in -- there we go. Sorry. And, you
24 know, we did meet with stakeholders that were interested
25 in the report, both prior to the release of the report and

1 then after. And it is true that, you know, this was done.
2 As CARB staff and the District working together, we did,
3 you know, review information that they submitted to us and
4 had a good exchange back and forth. You know, from our
5 perspective, that was important work to do, but it is
6 something that is extremely time consuming. It did take a
7 lot of staff time to prepare. And, you know, while I
8 appreciate the request, my challenge here is in trying to
9 determine how we do all the work that we're trying to do,
10 especially given the federal attacks, and sort of go back
11 and redo work that we've already done.

12 So, you know, I'm trying to balance those
13 resource issues. And, you know, of course, if the Board
14 wants us to agendize an item in the future, we would
15 certainly do that. I think that, as we continue to do
16 these annual updates and as we continue to evolve in our
17 analysis of those State Implementation Plans, hope that we
18 can continue to drive forward progress and use that as the
19 basis for our collaborative work in making air quality
20 progress.

21 We do know that the District has done important
22 work. There's obviously more work to do and we are
23 collaborating with them on that. The substantial air
24 pollution impacts that the valley experiences comes from
25 mobile sources, which frankly are those things that are

1 under attack by the federal government.

2 So we want to continue to make progress wherever
3 we can We're -- you'll hear a bit in the next
4 presentation, the work that we're doing to continue to
5 make progress on mobile sources. I think that, you know,
6 our work is best focused on that and collaboration with
7 the District. And, you know, that's kind of what I'm
8 hoping to continue to do as we -- you know, to implement
9 these programs and the State's -- the State's SIPs.

10 CHAIR SANCHEZ: Thank you, Dr. Cliff.

11 BOARD MEMBER TAKVORIAN: Well, I hope other Board
12 members also weigh in on that. But I totally appreciate
13 what you're saying, Dr. Cliff. And I know that the
14 capacity is really stretched, in no small part because of
15 the assault that we're experiencing. The problem is that
16 these are the same issues that have been raised year after
17 year, decade after decade. And I think we really need an
18 opportunity, and perhaps there's another way, that you
19 might suggest after having some consultation with staff,
20 that you could come back to us with -- to really address
21 these. Mobile sources, yes. But that's ammonia, wood
22 burning, pesticides, those are not mobile sources and
23 those are -- some of which are under the jurisdiction of
24 the -- of the Air District.

25 And I know we've had many robust discussions

1 about this. So I'm looking for a setting in which we can
2 continue to have those discussions and provide that
3 support to the District and to the community. So, perhaps
4 we can report back on this, if we're not ready to make a
5 decision on it today, but I'll leave it to the rest of the
6 Board members and our Chair to decide on that. Thank you.

7 CHAIR SANCHEZ: Thank you, Ms. Takvorian. Yes.
8 Thank you.

9 Dr. Pacheco-Werner, we'll turn to you from the
10 valley.

11 BOARD MEMBER PACHECO-WERNER: Thank you so much.
12 And thank you to staff for the great presentation. To
13 everyone that came to comment, either in person and online
14 from the San Joaquin Valley, I just really want to thank
15 you for all you do to advocate for your communities, to
16 make sure that they are more breathable for everyone.

17 I can tell you that at the Air District, we are
18 taking an all-hands-on-deck approach, as was mentioned by
19 staff. And there are numerous commitments on regulations
20 that we are not -- we have not only planned for, but have
21 implemented in the past four years that deal with glass
22 melting, boilers, heaters, oil and natural gas facilities,
23 and wood burning. And I do look forward to following
24 those up and definitely seeing how those are implemented,
25 and making sure that they are yielding the reductions that

1 we promised they would.

2 I do have to say that while we talk about
3 electrification as a big solution, and, for me, that was
4 one of the reasons why I even joined this Board is for a
5 zero-emission future. We cannot have solutions proposed
6 that are isolated from the realities of our communities.
7 And right now, it does feel like we're in silos talking
8 about that, and it's frustrating, because I know that
9 there is a lot of work across agencies and even among CARB
10 staff.

11 However, I am hopeful that we can continue to
12 seek solutions, as we already have, on the electrification
13 question on many fronts. For us in the San Joaquin
14 Valley, I can tell you that it's not just a question of
15 cost, which many other people around the state have a
16 sense of, of course. But in the San Joaquin Valley, we
17 have a tremendous infrastructure problem.

18 And so, while we can say we will use the best
19 available technology and make everything electric, that
20 won't result in the real-time reductions that the people
21 commenting here who are -- whose nephews and children are
22 being affected, that doesn't -- that doesn't affect real
23 people on the ground right now.

24 So as we enter this next planning phase, this
25 next update phase, I really want to see how we can work

1 together to make real emission reductions and realistic
2 timelines, of course, that are ambitious, both at the
3 stationary and mobile source that really address
4 reductions for people in the next 10 years, not just in
5 the next 30 years.

6 And I also look forward to seeing how the new
7 data we're gathering in a variety of ways informs us how
8 we can find new opportunities for these emission
9 reductions. As was mentioned by staff, the things that
10 hurt us the most in the San Joaquin Valley in terms of
11 bang for our buck is mobile sources, and wood burning, and
12 things like charbroilers. And so I think in terms of
13 placing our time and energy, it definitely should be in
14 seeing how we make sure we have an accurate emissions
15 inventory that guides our rulemaking and plans.

16 So to this end, I do thank the staff and the air
17 district for getting that report done that was asked to be
18 completed by the Board on the request of the environmental
19 justice groups. And I really do thank the environmental
20 justice groups who are working hard to ensure that we have
21 the best picture possible of our stationary sources.

22 And I can tell you that personally I plan to
23 follow up on the memo and ensure that it continues to
24 inform our planning. As we do that, I know that there are
25 policy investments that we could do now that will improve

1 the San Joaquin Valley air today in real time. One of
2 those is the increased funding for programs that turnover
3 dirty mobile source emission technologies, such as
4 tractors and vehicles. And so, that is why any time any
5 of you will step into the San Joaquin Valley, one of the
6 first things you'll hear about in terms of solutions is
7 the FARMER funding, which got no dollars this year, right?

8 So, there is that piece to add to that. And
9 there's -- also needs to be an increased political will to
10 address charbroilers, because if we -- and it's a very,
11 very challenging thing. But in terms of these
12 environmental justice communities, if we are science
13 based, this is a big direct impact in real time for these
14 communities. So, I really want to see how we work
15 together on this.

16 Again, thank you to everyone. This is so complex
17 and I really thank my fellow Board members for continuing
18 to engage with the San Joaquin Valley, engage with the
19 residents, engage with environmental justice groups on
20 this, and I hope also with the Air District and CARB now
21 in this next critical phase of having an update to our
22 plans that creates real reductions in real time for people
23 and with what we have to work with right now.

24 So, Chair, I do have two questions for staff.
25 One in terms of what was mentioned around this memo that

1 we received. If you could just speak to any plans that
2 would -- that you have in terms of how that will inform
3 the next plan update that we'll -- we will have in front
4 of us. This, to me, feels like a way to ensure that the
5 community feels like we've used this data that was
6 gathered to the betterment of our air quality.

7 And the second question is if you could give us,
8 as a Board -- I know that not everybody was following the
9 findings of our soil NOx scientific group and the final
10 report. So if you could just give us a high level finding
11 of -- high level findings, so that we can understand a
12 little bit of what they found in contrast to what we heard
13 from some of our commenters today.

14 Thank you.

15 EXECUTIVE OFFICER CLIFF: Thank you, Dr.
16 Pacheco-Werner. So, maybe I'll take those in reverse
17 order. The soil NOx issue that I think Professor Faloona
18 and perhaps others mentioned is the subject of discussion
19 with an expert panel. And I can have staff correct me if
20 I've got this wrong, but my understanding is that the
21 panel did not recommend any specific model. And the -- I
22 think the result of those discussions is that some more
23 information is needed. You know, the claim is that soil
24 NOx could be a large impact. And I think that's something
25 that we need to still continue to evaluate. There

1 wasn't -- there -- as I understand it, there isn't enough
2 information to refute that hypothesis at this time. But
3 staff please follow up and correct me if I've got anything
4 wrong.

5 I'm getting nods.

6 And then on the first question, since I took them
7 in reverse order, in terms of next steps, I'd like to ask
8 our chief counsel who also oversees the Enforcement
9 Division for CARB, and that was the Division that was
10 responsible for developing the report that we're
11 discussing. If Shannon can address the next steps on that
12 report and process.

13 CHIEF COUNSEL DILLEY: Yeah. Thank you. Shannon
14 Dilley. The next steps would be to meet with CVAQ. And I
15 believe the meeting is going to be in December. CVAQ
16 wanted a little more time to digest the contents of the
17 report. That report is lengthy and it has a lengthy
18 attachment to it. So the Enforcement Division will be
19 meeting them, going over the findings, and discussing next
20 steps.

21 BOARD MEMBER PACHECO-WERNER: Thank you, Chief
22 Counsel. Thank you.

23 CHAIR SANCHEZ: Great. Thank you, staff.

24 Thank you, Dr. Pacheco-Werner. I think, Shannon,
25 as Ms. Takvorian has asked and as you continue those

1 stakeholder conversations, if staff can continue to
2 consult on options to bring this discussion back to the
3 Board, we would really appreciate that. But let turn now
4 to Senator Stern.

5 SENATOR STERN: Thank you, Madam Chair. I just
6 want to give my first congratulations to you for taking
7 the helm of this critical institution at a time of great
8 peril. I just want to say on behalf of not just myself,
9 but the colleagues I represent as the Senate appointee,
10 there's a high degree of confidence in your ability to
11 help us navigate this, as well as the staff who's sort of
12 always been solid. But leadership is a tricky art form,
13 especially nowadays. And, you know, I guess the question
14 I wanted to raise with staff here and try to get a little
15 more detail on it just to sort of understand the scope of
16 the challenge that we're facing, as opposed to necessarily
17 what the solutions are right now.

18 The number -- the amount of funds and the timing
19 of funds being lost potentially, if the -- if, in fact,
20 the federal government decides to treat clean air like a
21 game -- like a political game of gotcha or some way to
22 punish us by hurting people who breathe dirty air, trying
23 to punish somehow over the politics by hurting people
24 seems like sort of the MO these days. So I guess -- I
25 would assume that's their plan.

1 If the sort of -- in the worst case scenarios
2 what kind of funding gaps could the State see in the
3 relatively near term and what kind of projects might that
4 impact. Is that data that you all have some more
5 granularity on. I didn't -- I didn't sort of get a ton of
6 that from the staff presentation, but -- and maybe that
7 requires a bit of a follow-up in talking to CTC, or
8 Caltrans, or sort of doing a little bit deeper analysis on
9 what the potential harms could be of losing those funds
10 and the sort of economic side of it, if you will, not just
11 the transportation side. But is there a little more
12 detail maybe you could lend, while we're here today,
13 understand timing and maybe scope?

14 EXECUTIVE OFFICER CLIFF: Yeah. Thank you,
15 Senator Stern. It's an important question and it is
16 something that we're evaluating. In fact, the -- this is
17 the very subject of the joint meeting, which will be held
18 on November 6th to discuss the transportation conformity
19 impacts of the illegal resolutions and how that might
20 impact transportation projects.

21 The potential is extremely large. I don't have
22 the latest numbers. I know that Caltrans was pulling that
23 information together. They were collecting information
24 from the various regions and, you know, from projects that
25 they were aware of. But these are numbers that are --

1 that are, you know in the tens or perhaps even hundreds of
2 billions of dollars that are, you know, potentially at
3 stake. I will just say briefly that it is our intention
4 to ensure that CARB's work and we -- as I say, we'll have
5 a lot more information on this at the joint meeting. It
6 is the intention that our work will be in concert with
7 U.S. EPA in such a way that we can continue to navigate
8 this really difficult situation.

9 So, we have work that we're doing. We're doing
10 that very closely with the California Transportation
11 Commission and with the Department of Transportation. So,
12 we're really in lockstep and that's a very live question.
13 And we hope to have a much clearer answer in just a few
14 weeks. But I really appreciate that question. It is
15 something that we're seriously looking at.

16 SENATOR STERN: Thank you I think, Dr. Cliff and
17 I guess, all I would say, is in the few weeks, I think
18 what will be so important about that joint meeting is just
19 the stakeholders at that table and the public commentary
20 there is kind of -- you know, tends to be of a little
21 different nature than we get here before the Air Board,
22 where we have, you know, those who are on the frontlines,
23 environmental justice communities, air quality, you know,
24 those who are sort of on the breathing side, as well as
25 some of the technology side.

1 But in terms of thinking of who is going to have
2 to be part of the coalition to dig our way out of this
3 mess while tools are being taken away from us, you know,
4 at the same exact time, you know, those who build
5 highways, those who rely on, you know, both surface and
6 all other kinds of mobility in this state to make their
7 local economies go, local governments, chambers of
8 commerce, people who are sort of counting on that
9 transportation infrastructure as the life blood of the
10 state, I don't know if this -- the risk here has really
11 dawned on everybody, so I would consider, you know, this
12 is the first big eye-opener meeting.

13 But I hope as you start to roll out that more
14 granular information that we can wake up all these other
15 stakeholders that are going to need to be with us here to
16 craft some solutions, because this is -- this is a
17 gargantuan challenge in a very bad faith environment. I
18 hope I'm wrong, but, you know, thus far, it does not seem
19 like folks are fighting fair.

20 So, Godspeed on it and we'll be here to back you
21 up all the way through the legislative process. So thanks
22 again.

23 CHAIR SANCHEZ: Well said, Senator Stern. Thank
24 you.

25 Dr. Balmes.

1 BOARD MEMBER BALMES: Thank you.

2 So first of all, I do want to congratulate staff
3 for putting together, I think, a good report on our annual
4 SIP progress. I also want to thank all the people that
5 testified, especially those from the San Joaquin Valley.
6 I think many of you know that I've been doing air
7 pollution health effects research in the San Joaquin
8 Valley since about 2000, originally with CARB funding,
9 before I was on the Board.

10 And I'm continuing to do that research. And so,
11 despite the fact that we've made improvements in the air
12 quality in the Central Valley, San Joaquin Valley in
13 particular, we're still seeing health effects at these
14 improved air quality concentrations.

15 So, I want to echo both Ms. Takvorian and Dr.
16 Pacheco-Werner concern about the community impacts --
17 continued community impacts of the air quality in the San
18 Joaquin Valley. And, you know, I've been fortunate over
19 the last couple decades to also work with environmental
20 justice organizations in the San Joaquin Valley,
21 specifically the Central California Asthma Collaborative,
22 who I have a long research connection with, and the
23 Central California Environmental Justice Network. So I
24 have a pretty good feel for the situation in the San
25 Joaquin Valley in terms of air quality. And while I

1 totally understand what Dr., you know, Cliff and others
2 have said that -- you know, it's mobile sources, which are
3 the major contributor to the bad air quality, it's not
4 that stationary sources are, you know, something we can
5 ignore.

6 So I support both Ms. Takvorian's as Dr.
7 Pacheco-Werner's concerns. And I would like us to find a
8 way to sort of dive deeper into the stationary source
9 issue in the San Joaquin Valley, not necessarily to bring
10 back the report per se, given the capacity issues, which
11 Dr. Cliff mentioned.

12 I think one area, which I was very impressed with
13 early on in my time on the Board, maybe even before I was
14 on the Board, was San Joaquin Valley I -- the Air
15 Pollution Control District I think was the first district
16 to have an ISR, Indirect Source Review Policy. And it
17 was -- it was in the vanguard of such work then, but that
18 was, you know, a couple decades ago.

19 And I think that even though Bill Magavern I
20 think said some negative things about the South Coast ISR,
21 I think it's considerably better because it's newer and
22 addresses warehouses better than the current San Joaquin
23 Valley Air Pollution Control District ISR. So, I think
24 that's a way to help the air quality situation in the San
25 Joaquin valley is to work on improving their ISR to make

1 it more like the South Coast ISR.

2 And what I would really like is a statewide ISR,
3 which I know we're considering, because I think that that
4 is a way for us to make progress on nonmobile sources --
5 nondirect mobile sources. You know, warehouses bring
6 trucks. And those warehouses get sited, and I mean that
7 by where they are placed, not cited for violations.
8 They're still getting sited in neighborhoods in the Fresno
9 area, for example, that already have greater exposure --
10 greater burden of exposure to air pollution, especially
11 from trucks. So I really think a way forward for this
12 Board for San Joaquin Valley in specific, but I think in
13 general for the state is to -- is to move towards a
14 statewide ISR. So that's the main point I wanted to make
15 in addition to endorsing what Dr. Pacheco-Werner and Ms.
16 Takvorian have already stated.

17 And the final thing is in response to Senator
18 Stern's comments about where our funding gaps are, the one
19 that sticks out for me among many, but especially since
20 we're talking about the San Joaquin valley here, is
21 FARMER. I think we absolutely -- FARMER has been a very
22 successful program that both farmers and the community
23 have supported. And it's been effective. And I think we
24 need to get money for FARMER, because, as I understand it,
25 we currently have -- the Legislature didn't appropriate

1 any money for FARMER. So with that, thank you.

2 CHAIR SANCHEZ: Thank you, Dr. Balmes.

3 Supervisor Ortiz-Legg.

4 BOARD MEMBER ORTIZ-LEGG: Good morning, everyone,
5 and welcome Chair Sanchez. It's really nice to have you
6 with us. I am going to continue with the similar
7 comments. And I'm going to use the word "Opportunity"
8 just to be positive, but, you know, this is very
9 challenging time. But, you know, listening to the public
10 comments, thank you everybody for coming in. And it was
11 an extensive staff report, so thank you for that as well,
12 but the opportunity to address our realities and try to
13 balance out the reality that we're also talking about a
14 major agriculture production area.

15 When we were -- and I'm really focused on the San
16 Joaquin valley and the entire Central Valley in regards to
17 their conditions. You know, we have major agribusiness.
18 And that's something that we must recognize as very
19 strategic important part of our state. And that being
20 said, it was clearly mapped out in those -- the mapping
21 that was shown to us in our slides that we have certain
22 areas that we really need to be focused on.

23 And I think that we must, as a Board and an
24 agency, focus our resources towards these locations. We
25 need to do that with more carrots and incentives, whether

1 it's FARMER or otherwise, that in order to address what
2 hasn't been able to be successfully address, because of
3 the realities is that, you know, there's other parts of
4 your state that really we don't have that. We don't have
5 those conditions. We don't need to be putting resources
6 or staffing and things like that in areas when we have
7 such a gaping hole, if you will, of impacts of dirty air
8 on individuals.

9 And I think that that's really one of the things
10 that we've got to maybe rethink a little bit more. And
11 we've got technological improvements that could be
12 invested in. Instead of using sticks, and more rules, and
13 this and that, I think that we really need to be doing the
14 carrots kind of approach on all of these things, and
15 particularly again balancing our food production with the
16 emissions that that brings. And so, that's really my
17 comments here to continue to pull for low -- to continue
18 to push for Low Carbon Fuel Standards. I think it was
19 well stated about the fact that there's just certain
20 electrifications that aren't happening at a quick enough
21 level, and that we have these opportunities to do things
22 right now that could reduce NOx.

23 And so, those are my comments. Of course, I'm
24 never going to not have an opportunity to comment on the
25 fact that we, at the State level, really need to pull off

1 our nuclear moratorium. Central Valley people come to our
2 Diablo Canyon nuclear power plant often and look at what
3 that does for generating, you know, robust clean energy
4 24/7. These kinds of opportunities are something that our
5 State has really got to wrap their head around and get
6 going on.

7 And so there's multiple things that we need to --
8 in order to address, but dirty air kills and we've got --
9 we've got certain tools in the toolbox. I think we need
10 to put them to work in maybe a little different approach.
11 So thank you for the opportunity comment.

12 CHAIR SANCHEZ: Thank you, supervisor. Seeing no
13 other comments -- yes. Oh, a few more.

14 Dr. Shaheen, the floor is yours.

15 BOARD MEMBER SHAHEEN: Thank you, Chair Sanchez,
16 and so delighted to be working with you on the Board.

17 So, I was really delighted to hear that Senator
18 Stern raised a comment that I was going to bring to the
19 table on slide 21, which talks about our transportation
20 conformity and the impacts on our funding.

21 As a transportation expert, conformity is near
22 and dear to my heart and I know exactly how this works.
23 Thank you to the staff for the very robust presentation
24 today. It wasn't the most uplifting, but I think it
25 energizes us to really think creatively. And I'm very

1 excited about the next presentation that I think is going
2 to talk about a lot of additional tools that we might
3 bring to bear.

4 So I'm not going to focus on that in my comments
5 at the moment. What I really want to do is dig in a
6 little bit to the mechanics of the waivers, the modeling,
7 and what we might be doing behind the scenes. And I know,
8 staff, you're working on that.

9 All right. So, the 2022 Roadmap, which was
10 before my time on the Board, right, gives us this roadmap
11 to how we're going to achieve it. And it is clearly based
12 on our waivers and relies on our EMFAC modeling tools. So
13 I think what got me concerned a lot was our discussion
14 yesterday, staff, about the EMFAC model and the
15 implications for our ability to demonstrate conformity,
16 because it is contingent on that model and the reliance on
17 our waivers.

18 So, I guess my question is, you know, how are we
19 planning to approach this modeling issue, if we don't have
20 the waivers and we don't have concurrence on the use of
21 the model in terms of off-model tools and how you're
22 potentially working with the Metropolitan Planning
23 Organizations on this, because it gets pretty technical
24 and pretty involved as I know you're aware, so -- but I
25 would love to hear from the staff a little bit more on the

1 technical side of what we need to be doing to prepare
2 because we know we've lost the waivers and I think the
3 ability to use EMFAC.

4 EXECUTIVE OFFICER CLIFF: Thank you, Dr. Shaheen.
5 So as I mentioned, that will be the subject of the joint
6 meeting. So we'll have a lot more detail when we do that
7 meeting. But briefly, our approach here is to develop
8 off-model adjustments and then work with EPA to get those
9 approved for use. That will then allow for the regional
10 transportation agencies who have to do conformity
11 evaluations or, you know, any of those have to, to at
12 least have a model that's appropriate for evaluating
13 conformity. That's sort of the first step.

14 The second step will be, you know, looking at the
15 budget -- the conformity budgets and then making a
16 determination as to whether those budgets must be
17 adjusted. And if so, that would be work that we would
18 have to bring back to the Board. But I don't want to get
19 too ahead of ourselves on that. You know, the first step
20 is we need to have a model, so that we can evaluate
21 conformity. And that's, you know, our first objective is
22 to get that -- to get the off-model adjustments approved.

23 BOARD MEMBER SHAHEEN: Thank you, Dr. Cliff. I
24 just know how serious this is. I think conformity was the
25 very first things I worked on when I arrived in

1 California.

2 So, the other comment I just wanted to make is I
3 think all of the stakeholders, so many of you traveled so
4 far to come, and I share your feedback. And I was really
5 touched by a comment letter that I read last night from
6 the Central Valley Air Quality Coalition, CVAQ. And we've
7 heard from them. They called in today. And they gave us
8 a letter that talked a lot about their concerns about air
9 quality in the San Joaquin Valley. And my colleagues on
10 the Board have also mentioned this, but there were a
11 number of recommendations, along with aggressive ICR
12 tools, or Indirect Source Rule tools, but there were many
13 recommendations. And I would love to work with staff or
14 others to just work through those list of recommendations,
15 so I can better understand which ones we might exercise
16 and which ones we may have more limited control over.

17 I'm not going to list them, but I think they're
18 just ballparking it, about 10 different recommended
19 strategies. So I just got this letter last evening, so I
20 haven't had a lot of time to do research on each of the
21 recommendations, but would love to talk with the staff
22 more on that. So thank you, Chair.

23 CHAIR SANCHEZ: Great. Dr. Shaheen, thank you.
24 Mr. Rechtschaffen.

25 BOARD MEMBER RECHTSCHAFFEN: Thank you. I'm

1 going to build on what was just said by my colleagues. I
2 appreciate the very detailed compliance reports from CARB
3 staff. And that was responsive to our direction last year
4 to look at the highest emitting sources in the San Joaquin
5 Valley. Can we build on the suggestions of the -- of my
6 fellow Board members to give us some additional update or
7 sense of what -- any neutrals the San Joaquin Valley is
8 thinking about, some of the recommendations in the CVAQ
9 letter. I know we say in our report from July that we're
10 committed to continuing to work with the District on
11 various tools, in addition to our state -- statewide
12 tools.

13 You can see there's a lot of ongoing interest in
14 that. So without creating additional workload, what --
15 I'd ask Dr. Cliff and others to think about how we can
16 remain involved and updated on this important area.

17 CHAIR SANCHEZ: Thank you, Mr. Rechtschaffen.

18 Councilmember Guerra, the floor is yours.

19 BOARD MEMBER GUERRA: Thank you, Chair, and also
20 publicly congratulations on your appointment.

21 And I wanted to, first off, not miss the
22 opportunity to also recognize some successes. I think
23 thank the staff for recognizing Sacramento Valley reaching
24 its ozone attainment -- ground level ozone. And to that
25 point, it's -- you know, it -- as was mentioned by Dr.

1 Balmes, that when we meet those attainments, it's real
2 helpful on benefits. We're talking about significant
3 changes to quality of life.

4 To the point where I remember doing a survey in
5 2020 as part of our other local initiatives in air quality
6 ranked above 66 percent. And this is -- and we did one
7 recently. And air quality ranked actually around -- in
8 the 39 percent. And that's because in the summer, it's a
9 lot better. We also had a few cooler weeks, but still, I
10 mean, I think the -- it goes to show that -- the public
11 response when we do have those challenges.

12 The success though I think came from what I --
13 what we have here in the region. One, obviously, a litter
14 direction from this body in the work that this staff does,
15 but also, a strong partnership -- the Clean Air
16 Partnership with our five air districts in the area,
17 Yolo/Solano, Feather River, which is Yuba and Sutter,
18 Sacramento, El Dorado, and Placer county, all pulling
19 together, you know, both agriculture, Sierra, urban,
20 metropolitan, suburban, and also our community advocates
21 Breathe Sacramento, but most importantly, in that
22 conversation with our industry partners.

23 And when we would also go to D.C. even this
24 year -- including this year, our industry partners were
25 with us. And I think that moving forward, you know, with

1 figure how we -- how we all work together and -- at the
2 local level is that -- what has helped us drive that
3 direction forward. And we see those trends. If you look
4 at where Sacramento's trend came down, it came down pretty
5 significantly, because we looked at how to maximize, you
6 know, a number of our incentives. Carl Moyer being one
7 obviously and the other we being FARMER.

8 And so, to the question about, you know, where
9 are the -- where are the gaps? I mean, FARMER, I mean,
10 for Sacramento Valley, I mean this is one of the largest
11 agricultural production areas as well when it comes to not
12 only just, you know, tomatoes across the river, but
13 walnuts to the north, and even the wine and grape
14 industry.

15 So all to say is I think clearly the incentive
16 programs have been helping, helping our farmers stay
17 competitive and also transition. And I think that's
18 the -- a key piece to highlight.

19 The last point, I wanted to recognize is I want
20 to highlight more on the issue, as well as, you know, the
21 real-time reductions. And as we do continue to cement the
22 ambitious goals, even, you know, in Sacramento County,
23 while our partnership has, you know, service sectors from
24 PG&E others, even if in Sacramento County, where SMUD is
25 very aggressive on this, the challenges of being able to

1 electrify and even municipalities being able to electrify
2 has been -- has been an issue.

3 So finding alternatives -- and what we do here to
4 final alternatives to the older diesel fleets I think is
5 increasingly important. Yes, we did electrify -- and I
6 want -- I want to take this opportunity to brag about
7 having the largest school bus fleet in the nation, you --
8 yes -- electrified, you know, and the second largest
9 electric school bus fleet in the nation, also in
10 Sacramento County, so -- but, that even -- that said, it's
11 not -- it's not enough. So the fact that we were able to
12 transition a lot of our older diesel trucks out into
13 natural gas, a lot of our solid waste trucks -- and most
14 of those solid waste facilities, those landfills, are, you
15 know, in South Sacramento in my neighborhood and
16 transition those diesel out of that into natural gas.
17 Those are real-time implications and we've gotten to that
18 level ozone attainment.

19 So, yes, we have direction where we're going, but
20 I do think it's important that the real-time benefits and
21 what we do to change the air quality today and not 30
22 years from now is just as important, because, if not, the
23 alternative -- and we had this conversation during the
24 first ACF is -- you know, the alternative is relying on,
25 you know, exemptions for those older vehicles.

1 So I'll just leave it at that and say I -- you
2 know, I appreciate where we're moving, you know, in
3 finding -- ensuring our primary responsibility, which is
4 public health here, and excited to also again not -- let's
5 not also forget that we have had some major successes.
6 And I was sharing to my colleague here that, you know,
7 where we were in 2000 and 2024, I mean, that shows
8 significant improvement. And I think that should be
9 recognized. And for our staff here at CARB, they should
10 be recognized for those successes.

11 So thank you, Chair.

12 CHAIR SANCHEZ: Thank you, Councilmember.

13 And great transition to our next item with your
14 electric bus fleet -- school bus fleet. Good news.

15 I am seeing Assemblymember Jackson. Is that you
16 asking for the floor?

17 ASSEMBLYMEMBER JACKSON: No.

18 CHAIR SANCHEZ: No. Okay. Great. Still
19 figuring out how folks are grabbing attention.

20 I'll wrap up this item and transition us by just
21 thanking staff. It's my understanding this is first
22 annual statewide SIP update that the Board directed last
23 year, so thank you. A tremendous amount of work and
24 critical challenges ahead, but nowhere to go, but forward.

25 I will say this is my third week on the job.

1 During my second week on the job, I had the privilege of
2 going to the San Joaquin Valley Air District, meeting with
3 the Board, staff, and stakeholders. And what I heard from
4 the Board member discussion, staff, as you continue the
5 consultations, the meeting with CVAQ, for example, to
6 propose back to us options on settings for how we keep
7 this critical work moving forward. A lot of focus on
8 mobile sources, but rightfully so, and attention on
9 stationary sources as well. So thank you very much.

10 We are now going to turn to the next item on the
11 agenda, which is Item number 25-7-3, public meeting to
12 hear an informational update on Executive Order N-27-25,
13 regarding zero-emission vehicles.

14 Welcome the staff. Board members take a little
15 stretch break. We do have a guest speakers with us that
16 have a hard stop, so I am powering through.

17 If you are hear with us in the room and wish to
18 comment on this item, please fill out a request to speak
19 card as soon as possible, submit it to a Board assistant.
20 If you are joining us remotely and wish to comment on this
21 item, please click "Raise Hand" button or dial star nine
22 now. We will first call on in-person commenters followed
23 by any remote commenters, when we get to the public
24 item -- public comment portion of this item.

25 Since the California Air Resources Board was

1 created nearly 60 years ago, our population has doubled
2 and our vehicle use has tripled. Yet, we have reduced
3 many air pollutants by 75 to 99 percent as we just
4 celebrated in the last item. With nearly 30 percent of
5 new cars sold in California being zero emission, which the
6 Governor announced a few weeks ago, and the State hitting
7 its goal of two million ZEVs years ahead of schedule,
8 California's support for clean cars is unmatched. Today,
9 the state is home to a thriving zero-emission vehicle
10 market, including 56 zero-emission vehicle manufacturers,
11 and maintains a statewide network exceeding 200,000 public
12 and shared private chargers, with 22,000 units added just
13 since March of this year.

14 But while California has made major advances on
15 air quality, it's geography and persistent pollution
16 challenges mean the work is not over.

17 As we discussed in the last item, recent illegal
18 federal efforts purporting to revoke California's Clean
19 Air Act waivers have cast uncertainty on our ability to
20 achieve statewide climate and public health goals. With
21 millions of Californians living in areas with unhealthy
22 air quality, we must fight back against federal attacks on
23 clean air that put the health of every Californian at
24 risk. And as the planet continues to suffer from the
25 consequences of unchecked carbon pollution, CARB's mission

1 requires that we use science and innovation to continue to
2 tackle the climate crisis, particularly as vulnerable
3 populations are hit hardest by both pollution and climate
4 impacts.

5 In the wake of these unprecedented federal
6 actions, Governor Newsom issued Executive Order N-75-25 on
7 June 2nd, 2025 at an event on the roof of this building,
8 in fact. The Governor's order calls on several State
9 agencies, including the California Air Resources Board,
10 the California Energy Commission, the Governor's Office of
11 Business and Economic Development, the California State
12 Transportation Agency, and Department of Consumer Affairs
13 to propose strategies for expanding zero-emission vehicle
14 use across all vehicle types in making clean
15 transportation affordable, reliable, and accessible.

16 In response to the Governor's Executive Order,
17 CARB and our fellow agencies, many of them here today,
18 issued a report on August 19th earlier this year. This
19 report is part of a comprehensive strategy to build on our
20 previous efforts, including the Governor's Executive Order
21 N-79-20, which established a zero-emission vehicle
22 depart -- deployment targets for vehicles to improve air
23 quality and reduce greenhouse gas emissions, as well as
24 Assembly Bill 1279, which is set a goal for carbon
25 neutrality by 2045.

1 State agencies convened public sessions to help
2 shape recommendations for the report that are both
3 practical and durable, while advancing public health,
4 climate action, and economic resilience.

5 As next steps to follow these recommendations,
6 CARB is pursuing efforts to continue leading the nation in
7 clean transportation innovation, while growing and
8 stabilizing the zero-emission vehicle market in the long
9 term.

10 Dr. Cliff, would you please introduce the item?

11 EXECUTIVE OFFICER CLIFF: Thank you, Chair
12 Sanchez. And with your permission, we're going to shake
13 things up a little bit here, since we have guest speakers
14 who need to get moving. So I'm going to turn it over to
15 Benjamin Gramajo-Enzensperger to introduce our guest
16 speakers, and then we'll come back and do our staff
17 presentation.

18 Ben.

19 CHAIR SANCHEZ: Great.

20 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
21 ENZENSPERGER: Thank you, Dr. Steve.

22 First to speak is James Hacker, Undersecretary at
23 the California State Transportation Agency.

24 JAMES HACKER: There we go. Good morning -- or
25 good afternoon, I guess. Thank you, members of the Board.

1 Thank you to Chair Sanchez. I'm James Hacker,
2 Undersecretary of the California State Transportation
3 Agency. Thank you for the opportunity to speak with you
4 today regarding CalSTA's efforts to advance the adoption
5 of zero-emission vehicles and our response to the
6 Governor's recent Executive Order, which the Chair
7 graciously introduced seeking to further drive that
8 adoption in the wake of federal actions, stepping away
9 from some of those efforts.

10 Zero emission -- or CalSTA's interest in clean
11 vehicles, is grounded in what we call our core four
12 priorities for transportation, which guide a lot of the
13 work that we do. And those core four are safety, equity,
14 climate action, and economic prosperity. Zero-emission
15 vehicles align strongly with these priorities. And like
16 CARB, we believe that zero-emission and clean vehicles are
17 one of the best tools that we have to reduce harmful
18 pollution that harms public health, damages disadvantaged
19 and vulnerable communities, and destabilizes the planet's
20 climate. And so as an agency, we are committed to using
21 our -- the authority and tools that we have to advance the
22 transition to clean vehicles.

23 State law gives CalSTA department several forms
24 of authority relevant to the advancement of ZEVs. First
25 as an infrastructure owner, CalSTA oversees the

1 construction, management, and maintenance of State-owned
2 transportation infrastructure, predominantly, but not
3 entirely, by CalTrans. We own and permit charging
4 stations on our right-of-way and administer vehicle weight
5 regulations, tolling, and managed lane programs.

6 Second, as a large fleet manager and employer,
7 CalSTA oversees several departments with very large
8 vehicle fleets, including Caltrans and the California
9 Highway Patrol. And we're using that scale and the size
10 of those fleets to help scale up ZEV deployment statewide
11 by procuring them for our fleets and building the
12 necessary charging infrastructure to support their daily
13 operations.

14 Third, as a funding agency, CalSTA and our
15 departments allocate billions of dollars in transportation
16 funding each year across many State programs through
17 mostly Caltrans and the California Transportation
18 Commission. This money goes to support things such as
19 conventional infrastructure, as well as fleet and public
20 charging infrastructure, and the procurement of
21 zero-emission trains, buses, and other transit equipment.

22 Areas and programs of focus for that ZEV funding
23 includes the Transit and Intercity Rail Capital Program,
24 the Solutions for Congested Corridors Program, and the
25 Trade Corridor Enhancement Program.

1 We also administer federal transportation funds
2 received by the State, including the National Electric
3 Vehicle Infrastructure, or NEVI, Program.

4 And lastly, as a motor vehicle regulator, CalSTA
5 oversees the safe operation of vehicles in California
6 through the DMV who administers the licensing and
7 registration of drivers, vehicles, dealers and
8 manufacturers. We also oversee the New Motor Vehicle
9 Board who interfaces with vehicle dealers to ensure
10 consumer protection.

11 In response to the Governor's Executive Order in
12 June, Secretary Omishakin directed CalSTA staff to
13 evaluate all of the opportunities that exist under these
14 authorities to help further accelerate ZEV adoption across
15 the State.

16 In consultation with our departments, outside
17 stakeholders, and our interagency colleagues, including
18 through a series of public hearings convened by our
19 colleagues here at CARB, we identified a robust set of
20 policy and programmatic actions to accelerate ZEV adoption
21 within CalSTA's areas of jurisdiction.

22 Several of these recommendations are highlighted
23 in the joint ZEV Forward report that was published in
24 August. They include: first, prioritizing funding and
25 buildout of charging and fueling infrastructure along

1 major corridors in the state, including the SB 671 Clean
2 Freight Corridors and the NEVI alternative corridors;
3 advancing the reliability of agency owned and funded EV
4 chargers; accelerating EV charging infrastructure
5 installation by streamlining the permitting requirements
6 in coordination with those actions for agency funded and
7 installed chargers along our right of way; maximizing the
8 use of existing transportation funding programs to support
9 ZEVs and ZEV infrastructure, in consultation with Caltrans
10 and the CTC; prioritizing the procurement of zero-emission
11 vehicles for CalSTA's large agency fleets and the
12 installation of the charging infrastructure necessary to
13 support them; updating the guidelines for funding programs
14 supporting local governments and transit vehicle
15 procurement to increase ZEV purchases outside of our
16 purview; and developing statewide cooperative purchasing
17 strategies to aid local government agencies in procuring
18 those ZEVs at the lowest possible cost.

19 We currently actively engaged in workstreams to
20 move several of these recommendations forward and are
21 working in partnership with the Governor's office, CARB,
22 and other State agencies to prioritize additional actions
23 on this list that may help further accelerate ZEV
24 deployment.

25 I greatly appreciate CARB's leadership in driving

1 interagency collaboration on this effort and we look
2 forward to your continued partnership. Please don't
3 hesitate to contact me or my staff at CalSTA, if you have
4 questions or suggestions for ways in which we can further
5 enhance this effort and thank you for your time.

6 CHAIR SANCHEZ: Thank you, Mr. Undersecretary.

7 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
8 ENZENSPERGER: Next up, we have Tyson Eckerle, Senior
9 Advisor for Clean Infrastructure Mobility at the
10 Governor's Office of Business and Economic Development.

11 (Microphone was not on.)

12 TYSON ECKERLE: Oh, yeah. Oh, do I need to start
13 over.

14 BOARD CLERK MOORE: Yes.

15 TYSON ECKERLE: He told me to start over.

16 Okay. So I'm Tyson Eckerle, Senior Advisor at
17 GO-Biz and it's great to be here. And so on my bike ride
18 in, I was thinking about -- well, a couple things
19 happened. One, I passed a school bus. It happened to be
20 electric. And the only weird thing about that was that it
21 was parked in a weird spot. But it was pretty cool,
22 because you see a lot of electric school buses. With
23 Councilman Guerra, like we made a made a lot progress.

24 And the other thing I was noticing is, you know,
25 there's a lot of beautiful fall gardens out there. And I

1 think building a ZEV market is kind of like growing a
2 garden. And I think a year ago if you look at it, like we
3 had our soil balance, the amendments, everything was
4 growing. We were kind of in the weeding and pruning phase
5 of market development, you know, kind of this -- and
6 expansion, right? And people were eating and everybody
7 was happy.

8 And then this past year, a massive hurricane came
9 through, and it destroyed the garden. It destroyed the
10 store that we go to to, you know, plant the garden. And
11 now we're left faced with, okay, how do we pick up the
12 pieces. And so, with that, I'm very grateful for how the
13 Governor is stepping in and -- with this Executive Order,
14 because that's really what this is about, right? Like to
15 get this all right, we have to get that system back in
16 balance. And we're all here together, you know, this --
17 its representation on the interagency part is working
18 together as a system.

19 It's really distracting having this big picture
20 of yourself up here.

21 (Laughter).

22 TYSON ECKERLE: So -- but I think it reinforces
23 that foundational -- that system approach, right? And so
24 if you look at EV charging as an example, we do a lot of
25 work streamlining permitting. But if the energization

1 process takes too long, you don't have the chargers there.
2 On the hydrogen side, there's lost of investors wanted to
3 do supply. But if you don't have the offtake agreements
4 signed, you can't get the investment to flow. And so,
5 it's all about that system balance.

6 Our job at GO-Biz is really to help us all tend
7 to that system, kind of have that system of gardeners in
8 place, so that we're all working together. And I think
9 especially now it's really important to make sure that the
10 system is enabling private sector investment. And so we
11 spend a lot of time talking to the private sector, trying
12 to understand like how are policies helping, hurting, wha
13 we can do as a system to help make that -- those
14 investments flow. And I think that, you know, working
15 together, we can really translate a lot of that input. I
16 know we all talk to the private sector, but into making
17 that -- like our State actions making them more tenable
18 for them.

19 And I think we've already shown collectively,
20 like as Chair Sanchez had pointed out, that this approach
21 really works.

22 I lost my place here.

23 You know, really with a well thought out design,
24 we can enable market things. And a good example that came
25 up just recently is related to the hydrogen hub. Now,

1 unfortunately, as you probably saw in the news, the DOE
2 announced the cancellation of the hydrogen hub or they're
3 pulling out of the hydrogen hub on October 1st. I think
4 the only thing perhaps more poetic would have been if they
5 waited till October 8th, which is National Hydrogen Day,
6 because the atom weight of hydrogen is, you know, 1.008,
7 but they didn't do that.

8 But we got a little bit of luck with that,
9 because over the summer, we put out a Request for
10 Qualifications to prequalify OEMs for a 5,000 fuel cell
11 electric truck Program. The idea there was like, how much
12 money would you need to reach total cost of ownership
13 that's competitive with diesel. If we designed a system
14 that included the OEMs, the fleets, the station providers,
15 the service providers, and, you know, what would it take
16 for you to do that?

17 We got a really robust response. Three OEMs
18 responded, one conversion manufacturer and three component
19 suppliers, and the connections directed to about 5,000
20 trucks. And so, we're currently scoring those now. And
21 it's an opportunity for the State to continue leading. If
22 those scores come back well and it works for us, we can
23 continue to push that market forward.

24 And so, I think if you look at this, like, you
25 know, really what we were looking for, you know, can we

1 create certainty for investors. And that's really what
2 they love. They love certainty. And we have to do that
3 by addressing every part of the value chain. And so if
4 you look at Jobs First was released over -- in February,
5 right? It's our economic plan -- blueprint plan. We had
6 13 regional plans that fed up into that statewide economic
7 plan. Twelve of them had clean -- the clean economy was a
8 priority and then six of them called out zero-emission
9 vehicles in hydrogen. And we have a tremendous
10 opportunity working actually from the ground up at the
11 local level to build out those networks and frameworks to
12 make sure that we have the jobs available and the
13 family-supporting jobs to build out the market as needed.

14 And so, in closing, I just wanted to share our
15 deep commitment to collaborating across all the State
16 agencies in helping to coordinate and make sure that
17 the -- we keep this stuff going forward and we can start
18 going that garden again. We have a really, really strong
19 foundation to build on. And I think with this team we
20 feel very good and gracious to be part of the State of
21 California.

22 Thank you.

23 CHAIR SANCHEZ: Thank you, Tyson. Thank you for
24 all your gardening.

25 MSCD AIR POLLUTION SPECIALIST GRAMAJO-

1 ENZENSPERGER: All right. Next up, Jennifer Kalafut,
2 Deputy Director for the Fuel and Transportation Division
3 at the California Energy Commission.

4 JENNIFER KALAFUT: Hello. Good afternoon. Thank
5 you this opportunity to speak for -- speak and thank you
6 to CARB's leadership in coordinating the efforts to
7 respond to the Gov's -- the Governor's Executive Order.

8 My name is Jen Kalafut. I'm a Deputy Director at
9 the California Energy Commission, or the CEC. The CEC has
10 been an active participant in this process and the
11 development of the recommendation to the Governor. In
12 particular, the CEC is the State lead in ZEV charging and
13 refueling infrastructure deployment, and supports all the
14 recommendations provided to the Governor including to
15 develop incentive and rebate programs for ZEV
16 infrastructure and to increase the reliability,
17 accessibility, and utilization of ZEV charging and
18 refueling.

19 Our goal is that charging your EV or refueling
20 your fuel cell vehicle should be easier and smarter than
21 refueling with gas. Currently, as was already stated,
22 we're tracking over 200,000 publicly available EV charging
23 stations statewide, resulting in nearly every Californian
24 living within 10 minutes of an EV fast charger. Chargers
25 can be found at grocery stores, park and ride lots, even

1 gas stations, where share chargers can be found in
2 apartment complexes workplaces, doctor's offices, sports
3 facilities, and other parking areas. This statewide
4 network of public and shared chargers is in addition to
5 the estimated 800,000 EV chargers installed in people's
6 homes. Despite federal headwinds, California has doubled
7 down on improving the state's charging network and making
8 it easier than ever to own a zero-emission vehicle.

9 The CEC has been and continues to focus our
10 efforts on advancing this goal. And let me highlight a
11 few of our recent and upcoming activities that will
12 support the Governor's Executive Order. Just a few weeks
13 ago on October 8th, which I just learned was hydrogen day,
14 the Energy Commission voted to adopt a first-in-the-nation
15 regulation on EV reporting and reliability standards.
16 Specifically, these regulations require EV charging
17 companies to report their inventory for nearly all EV
18 chargers operating in California, except those at private
19 residence.

20 The reporting will enable the CEC to track the
21 number and types of chargers operating in California to
22 ensure that we can reach our goals. This regulation also
23 requires reporting on the reliability of publicly or
24 ratepayer funded DC fast chargers to ensure that they're
25 operating and providing value to Californians.

1 Specifically, under the regulation, DC fast chargers must
2 meet a minimum of a 97 percent uptime performance standard
3 going forward.

4 These regulations were developed through an
5 extensive public process that span many, many months of
6 public engagement, including six public workshops and the
7 publication of two drafts of the regulatory language.
8 This was followed by a formal rulemaking process, which
9 included more public comment period. Mass market adoption
10 of EVs is critical to reaching our clean energy goals.
11 Even the perception that public EV chargers are not
12 reliable presents a significant barrier to EV adoption.
13 These regulations will benefit Californians by enabling
14 the Commission to help ensure that EV charging is
15 accessible, available, and reliable.

16 In regards to future investments in ZEV
17 infrastructure, upcoming on December 8th at our
18 Commission's Board meeting, the Commission is scheduled to
19 vote on the Clean Transportation Program Investment Plan
20 Update. This Investment Plan is updated annually to
21 allocate new funding for various ZEV infrastructure
22 projects, including across the light-duty, medium-duty,
23 and heavy-duty vehicle sectors.

24 This annual update is an opportunity to inform
25 the public of California's ZEV infrastructure progress and

1 to gather feedback. To start with, the Investment Plan
2 proposes close to \$98.5 million in clean transportation
3 funding for light-duty charging infrastructure for this
4 next -- for this fiscal year to support near-term efforts
5 and gas in the funding. While this is significant,
6 medium- and heavy-duty ZEV infrastructure continues to be
7 an important priority for clean transportation program
8 investments. The CEC currently has three open funding
9 opportunities for medium- and heavy-duty ZEV
10 infrastructure. At ports, the implementation of medium-
11 and heavy-duty ZEV infrastructure blueprints and depot
12 charging and hydrogen refueling infrastructure for medium-
13 and heavy-duty on-road ZEVs.

14 These solicitations, which open in September of
15 2025 total up to \$120 million for this sector. The 2025
16 State budget also includes around \$38 million in
17 supplemental greenhouse gas reduction funds for
18 nonlight-duty zero-emission vehicle infrastructure for
19 this fiscal year. This further increases the amount of
20 funding available within the medium- and heavy-duty
21 infrastructure segment. While I've only hit on some of
22 the highlights for this year. In total, the CTP
23 Investment Plan Update is allocating around \$365 million
24 in funding from this fiscal year through 27-2028.

25 This Investment Plan was developed over the

1 course of the last year and includes consulting the Clean
2 Transportation Advisory Committee, the Disadvantaged
3 Communities Advisory Group, and multiple public meetings.
4 Before adopting the investment plan at CEC business
5 meeting, the CEC expects to convene another advisory
6 Committee meeting and release another version of the
7 report. If adopted, proposed investments outlined in the
8 investment plan will help expand ZEV infrastructure and
9 workforce development projects in California communities
10 that will accrue health, environmental, and economic
11 benefits from these programs. Thank you for this
12 opportunity to speak this morning and I look forward to
13 the remaining discussion today.

14 CHAIR SANCHEZ: Thank you, Jennifer, and
15 congratulations to the Commission on the reliability
16 standards.

17 JENNIFER KALAFUT: Thank you.

18 CHAIR SANCHEZ: Deeply appreciate all your work
19 to ensure the -- that Californians have the infrastructure
20 they need to make our ZEV reality a part of our future.

21 Over to the PUC. That was not your formal
22 introduction. Sorry, Board clerk. I'm sorry.

23 (Laughter).

24 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
25 ENZENSPERGER: We've got Matt Coldwell, Distribution

1 Planning Branch Manager at the California Public Utilities
2 Commission.

3 CHAIR SANCHEZ: Thank you, Ben.

4 MATT COLDWELL: Thank you. I have my notes on my
5 computer. My computer is about to die, so I'm going to
6 move pretty quickly here, so...

7 So, first of all, it's not good morning. Good
8 afternoon, Chair Sanchez - congratulations - members of
9 the Board. It's really an honor to be here today before
10 the California Air Recess -- Air Resources Board To speak
11 on behalf of the California Public Utilities Commission.
12 So I really thank CARB for inviting us here today to make
13 a few remarks on the joint agency report in response to
14 the Governor's Executive Order.

15 I want to first acknowledge CARB's leadership in
16 this effort and the fantastic interagency coordination
17 that's occurred over the past few months. And I know he's
18 not here, but I wanted to specifically acknowledge CARB
19 staff Andrew Martinez in his role in really providing a
20 lot of leadership in this effort. So I hear he's on
21 vacation, but shout-out anyway.

22 So the joint agency report contains several
23 impactful strategies and actions. And while much more can
24 be done -- oh sorry, that the various State agencies can
25 take to further the already impressive deployment of

1 zero-emission vehicles in California. So first part, the
2 CPUC is committed to implementing the actions of the
3 response. And while much more can be done, we are, in
4 fact, actively implementing many of the key actions
5 identified in the report already.

6 So just, for example, the joint agency report, as
7 previously was mentioned, recommends accelerating
8 infrastructure buildout, in part to minimize delay in
9 bringing needed charging infrastructure online. And that
10 includes strategies to create faster electric utility
11 energization processes as well as flexible service
12 connections.

13 So the CPUC currently has multiple open
14 proceedings that are in various stages of discussion in
15 implementing these strategies. So I want to highlight two
16 key decisions that were approved by the CPUC in 2024, one
17 that was issued in the energization proceeding at the CPUC
18 that established average and maximum customer energization
19 target timelines that really seek to accelerate the
20 utility energization effort. In that same decision, there
21 are a variety of different data reporting requirements
22 that the utilities must submit to the CPUC on a biannual
23 basis.

24 Second, was also a decision in 2024 that directs
25 the utilities -- the electric utilities to make various

1 improvements to their distribution planning processes.
2 That includes, implementing proactive planning measures to
3 ready the grid for future energization needs for all types
4 of loads, but for ZEV charging as well.

5 Currently, the CPUC is considering strategies to
6 maximize the utilization of existing utility-side
7 infrastructure to support ZEVs, mainly by providing
8 customers flexible service agreement options. And to
9 explain what this is, is these types of flexible service
10 agreements can allow customers that are facing -- you
11 know, their projects are facing utility-side
12 infrastructure capacity constraints and energization --
13 and energization delays. And so these aggrievance allow
14 these customers to energize their sites earlier than
15 expected by allowing them to use all the available
16 capacity that's available while the additional capacity to
17 serve the entirety of their load is in construction. It's
18 sort of a bridging solution to full energization.

19 CPUC also continues to work really closely with
20 CARB on the Low Carbon Fuel Standard holdback lacks that
21 are currently being implemented by the electric utilities.
22 And there's numerous programs that are funded by these
23 funds, and I'll just give you a few examples. So the
24 pre-owned EV rebates, which are sort of post-purchase
25 rebates for used EVs. We have -- there's a drayage truck

1 purchase rebates, as well as affordable public charging,
2 which essentially is a public EV charging credit to income
3 qualified customers via a prepaid debit card.

4 And so I'll just end by saying that the CPUC
5 really looks forward to the continued coordination and
6 collaboration with all of our sister agencies including
7 CARB to keep the ZEV -- California ZEV deployment momentum
8 moving forward. So I thank you.

9 CHAIR SANCHEZ: Thank you, Ben. I have -- I have
10 a one-year old son. And they say raising a child takes a
11 village. It also takes a village to make sure we can
12 achieve all of our ZEV goals across the state. So I am,
13 deeply, deeply grateful to your sister agencies for taking
14 the time, not just to -- all of the day-to-day work you
15 are doing on this agenda, but the work going into the
16 report, back to the Governor and for joining us today.

17 Thank you very much.

18 We are now going to take a break for lunch and
19 come back for lunch -- from lunch. Here the staff
20 presentation and move to public comment on this agenda
21 item, shifting things around due to the technical issues.

22 We will be meeting in a closed session as
23 authorized by Government Code Section 11126(e), and as
24 indicated in the public notice for today's meeting in
25 approximately one hour. After that closed session, the

1 Board will reconvene to hear the staff presentation,
2 public comment and Board discussion on this agenda item.

3 Thank you very much. See you a little before 2.

4 (Off record: 12:53 p.m.)

5 (Thereupon the meeting recessed into
6 closed session.)

7 (Thereupon a lunch break was taken.)
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AFTERNOON SESSION

(Thereupon the meeting reconvened
open session.)

(On record: 1:59 p.m.)

CHAIR SANCHEZ: All right. Please come to order.

The meeting of the California Air Resources Board
is now in session. The Board met in a closed session and
no action was taken by the Board. Dr. Cliff, please
resume the agenda item.

EXECUTIVE OFFICER CLIFF: Thank you, Chair
Sanchez. California has made extraordinary progress
towards our clean air goals. Yet, our unique geography
and persistent air pollution continue to present
challenges. This fact is undeniable when five of the
nation's 10 most polluted cities are right here in
California. With over 10 million Californians living in
nonattainment zones, the shift to zero-emission vehicles
must accelerate now, not later, for the real health of our
people and the future that we want to build.

Thousands of scientists from around the world are
not wrong. Recent illegal federal efforts are denying
reality and telling every victim of climate-driven fires
and floods not to believe what's right before their eyes.
Americans, and indeed the world, will not be fooled by
this administration. Unchecked climate emissions are

1 wreaking havoc across the country from Californians to
2 China, none of us are immune.

3 The progress we've made with clean-air vehicles
4 has shown what's possible, not only for our own
5 communities, but for others around the globe following our
6 example. Our influence extends far beyond our borders,
7 not because we compel it, but because our success is a
8 source of inspiration.

9 In developing the recommendations for future
10 action, State agencies hosted a series of public sessions
11 to hear from community members, tribal representatives,
12 environmental leaders, industry experts, fleet operators
13 and others on ways to increase the uptake of zero-emission
14 vehicles across California.

15 In these facilitated discussion sessions,
16 participants had the option to respond publicly,
17 anonymously, or submit written comments through a public
18 docket. These activities help build ongoing
19 communications between the public and State agencies,
20 ensuring clean transportation solutions reflect community
21 needs. More than a thousand Californians took part and
22 almost 200 more provided written comments and suggestions.

23 Participants offered many ideas for the increased
24 uptake of zero-emission vehicles in California, not all of
25 which could be included in the report or the presentation

1 today. We will continue to explore all avenues for
2 emission reductions and zero-emission vehicle deployment,
3 including those not discussed in the report and the
4 presentation.

5 CARB, together with our partner agencies,
6 developed a clear framework to speed the uptake of light-,
7 medium-, and heavy-duty zero-emission vehicles across
8 California. It focused on three great aims:
9 affordability, infrastructure, and market growth; built on
10 of pillars: investment, incentives, infrastructure, fuel
11 pricing, regulations, and procurement.

12 As the State moves towards implementation, it
13 will be critical to continue engagement, especially with
14 low-income communities of color facing historical
15 barriers. We will ensure all communities realize the
16 benefits from these recommendations and we will continue
17 working beside California's partners who have joined our
18 statewide pursuit of those three great aims leading
19 towards making clean air a priority.

20 Alongside these core concepts, we are working on
21 a comprehensive framework of implementation strategies
22 under the Governor's Executive Order. This framework
23 encompasses the design of new regulatory programs,
24 accelerating the deployment of clean air vehicles, and
25 advancing those innovative technologies that reduce

1 greenhouse gases, criteria air pollutants, and toxic
2 emissions from vehicles traveling along California's
3 streets and highways. We will elevate those industry
4 leaders who join us in setting the pace for California's
5 clean transportation future, while strengthening
6 interagency collaboration to ensure this progress endures.

7 I will now ask Benjamin Gramajo-Enzensperger of
8 the Mobile Source Control Division to begin the staff
9 presentation.

10 Ben.

11 (Slide presentation).

12 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
13 ENZENSPERGER: Thank you, Dr. Cliff, and members of the
14 Board. It is my pleasure to provide an update on the
15 multi-agency response to Executive Order N-27-25 and
16 outline CARB's next steps as we drive forward with our
17 commitment to zero-emission vehicle technology.

18 [SLIDE CHANGE]

19 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
20 ENZENSPERGER: We'll start with a brief overview of the
21 Executive Order and direction provided by the Governor.
22 Next, we'll walk through the ZEV Forward public outreach
23 process used to develop the Executive Order report,
24 highlighting overarching themes and feedback we received.
25 Then, examine the six priority recommended actions,

1 developed through multi-agency and public collaboration,
2 that form the heart of the report. Finally, we will look
3 ahead with Drive Forward; CARB's next steps plan to turn
4 these recommendations into action, sustain momentum on
5 zero-emission vehicle deployment, and deepen emission
6 reductions across the transportation sector.

7 [SLIDE CHANGE]

8 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
9 ENZENSPERGER: Before we begin, let's acknowledge some of
10 the State's most recent accomplishments and success
11 stories.

12 Zero-emission vehicles have become one of
13 California's top exports. In quarter three, 29 percent of
14 vehicles sold in California were zero emission, making us
15 home to the number one zero-emission vehicle market in the
16 nation. This has allowed us to meet our Advanced Clean
17 Trucks goals ahead of schedule, thanks to 56 zero-emission
18 vehicle manufacturers across the state supporting over
19 26,000 Californian jobs.

20 We've also seen statewide charging infrastructure
21 continue to expand at a rapid pace, which currently
22 includes more than 200,000 electric vehicle chargers and
23 68 hydrogen stations. We proudly share these achievements
24 made possible through the pragmatic determination of those
25 who understand the urgency, science, and selflessness in

1 addressing climate change for the greater good.

2 [SLIDE CHANGE]

3 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
4 ENZENSPERGER: Now, let's take a step back and understand
5 how we got here. Throughout 2025, multiple actions have
6 challenged California's environmental policies and
7 commitment to clean air. As you just heard in the State
8 Implementation Plan presentation, recent illegal and
9 unconstitutional moves by the current federal
10 administration have led to a critical shortfall in
11 emission reductions and directly undermine CARB's
12 regulatory authority to protect public health.

13 At the same time, shifting federal priorities and
14 budget uncertainties have shaken vehicle market confidence
15 in clean technologies. Cuts in zero-emission funding,
16 especially the recent expiration of the federal tax
17 credits, have raised serious concerns about affordability
18 and access.

19 These setbacks underscore a need for galvanized
20 action across California. With transportation responsible
21 for 60 percent of the state's criteria and smog-forming
22 pollutants and 40 percent of greenhouse gas emissions, the
23 State must continue cutting vehicle emissions to meet
24 National Ambient Air Quality Standards, fulfill State
25 goals, fight climate change, and protect public health.

1 Over 17.3 million Californians experienced
2 unhealthy levels of one or more toxic air pollutants this
3 past year, contributing to increased rates of asthma,
4 heart disease, and lung disease. Thus, there is more work
5 to be done. To meet our State's goals, including carbon
6 neutrality by 2045, and zero-emission vehicle and
7 infrastructure targets, California agencies must work
8 together hand-in-hand with the public to drive progress
9 forward.

10 [SLIDE CHANGE]

11 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
12 ENZENSPERGER: On June 12, 2025, Governor Newsom signed
13 Executive Order N-27-25, doubling down on California's
14 commitment to zero-emission vehicles. This new directive
15 reinforces previously set targets and kicks off a bold
16 next chapter in clean transportation.

17 The most recent Executive Order calls on CARB,
18 the California Energy Commission, Governor's Office of
19 Business and Economic Development, California State
20 Transportation Agency, and Department of Consumer Affairs
21 to deliver fresh recommendations that will accelerate
22 zero-emission vehicle adoption, expand infrastructure, and
23 strengthen consumer protections.

24 Additionally, the California Public Utilities
25 Commission and Department of General Services are key

1 partners in these efforts.

2 CARB will also launch and maintain public-facing
3 lists that highlight entities leading the charge on
4 zero-emission vehicles to help guide State incentives and
5 procurement decisions.

6 Finally, the Executive Order directs CARB to
7 begin the next phase of regulatory actions that cut toxic
8 emissions from light-, medium-, and heavy-duty vehicles,
9 moving California closer to a cleaner, healthier future.

10 [SLIDE CHANGE]

11 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
12 ENZENSPERGER: In response to the Executive Order, the ZEV
13 Forward initiative was established as a collaborative
14 effort between the public and State government to shape
15 California's clean transportation future. This effort
16 informed the recommendation report that was submitted to
17 Governor Newsom and published on CARB's ZEV Forward
18 webpage on August 19, 2025.

19 ZEV Forward unites all of California's clean air
20 strategies under one banner, sending a clear signal to
21 industry that a strong zero-emission vehicle market is
22 essential for honoring clean air commitments.

23 And just as importantly, it reaffirms that every
24 Californian has a voice in the journey ahead.

25 [SLIDE CHANGE]

1 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
2 ENZENSBERGER: The ZEV Forward dialogue sessions were
3 initiated to bring together expertise from the public,
4 industry, and State government, to collaborate and advance
5 clean vehicle technology.

6 Together, the agencies held multiple dialogue
7 sessions throughout California to receive public feedback
8 and direction in accordance with the Executive Order.
9 Attendees included community members, environmental
10 leaders, industry experts, and fleet operators.

11 The in-person dialogue sessions held in Fresno,
12 Sacramento, and Long Beach, discussed different aspects of
13 ZEV Forward, including agriculture and heavy-duty trucking
14 industries, light-duty vehicles and incentives,
15 infrastructure, and ports. An additional evening dialogue
16 session was held online as an open forum.

17 The discussions were formatted to optimize
18 participation from communities that are most likely to be
19 affected by these recommendations. In total, we had
20 approximately 1,100 cumulative participants and received
21 over 190 written comments.

22 Discussion topics centered on maintaining ZEV
23 deployment momentum, refining program design to align with
24 air quality and climate objectives, exploring
25 non-financial incentives, and making sure every

1 Californian benefits from the outcomes of ZEV Forward.

2 [SLIDE CHANGE]

3 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
4 ENZENSPERGER: Three pulse points emerged from the
5 dialogue sessions, each extending beyond individual
6 agencies and pointing to what California must do to
7 accelerate zero-emission vehicle adoption.

8 Affordability came first. Participants shared
9 bold ideas to reduce the initial up-front cost of
10 zero-emission vehicles, such as cutting registration fees,
11 lowering sales tax, and stabilizing clean fuel pricing.
12 The message was clear that California must continue
13 investing in infrastructure and vehicle incentives that
14 stack with local funding programs to maximize benefits.

15 Infrastructure was the second pulse point.
16 Participants stressed the need to expand infrastructure
17 into frontline communities that disproportionately feel
18 the burden of poor air quality. Trucking industry leaders
19 called for reliable charging routes along key freight
20 corridors, and community groups expressed need for a
21 faster permitting process to get chargers on the ground.

22 Finally, the market itself was a driving topic.
23 There were robust discussions around where zero-emission
24 vehicles are thriving, and where they are not. Commenters
25 underscored the importance of considering the used vehicle

1 market in future strategies.

2 Across the board, there was consensus that
3 California must keep backing those who are ready to invest
4 in a clean air future, even in uncertain times. It is
5 clear that this work is beyond what CARB, or what -- or
6 any one agency is able to accomplish alone.

7 [SLIDE CHANGE]

8 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
9 ENZENSPERGER: Dialogue from these sessions directly
10 shaped recommendations across six priority areas, which we
11 will explore next. Not all ideas heard from the public
12 were included in the priority agency recommendations, and
13 we are continually exploring new concepts. The
14 publication of the report is not the finish line, but is a
15 milestone in an ongoing, collaborative journey.

16 [SLIDE CHANGE]

17 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
18 ENZENSPERGER: With the success of renewable fuel and
19 zero-emission transportation in California, encouraging
20 private investment through the Low Carbon Fuel Standard
21 and California Clean Fuel Rewards Program supports
22 heavy-duty zero-emission vehicle adoption and clean energy
23 innovation. These programs spur economic growth across
24 the state that results in more affordable electric
25 vehicles, green-collar job growth in renewable

1 infrastructure, and lower healthcare costs.

2 With federal uncertainty clouding the road ahead,
3 incentives are at the forefront of our State strategy to
4 keep zero-emission vehicles and infrastructure affordable
5 and accessible for all. Multi-year stability in the
6 zero-emission vehicle market will deliver real benefits in
7 communities hit hardest by air pollution. Monetary
8 incentives are especially critical to enabling early
9 zero-emission vehicle adoption, helping Californians make
10 the switch before new regulations kick into effect.

11 Non-monetary incentives are useful long-term
12 tools to shape public behavior and build lasting change.
13 This can be accomplished through the development of
14 equitable pathways to clean transportation careers
15 supported by apprenticeships, college courses, and
16 certification programs. These ensure that a sustainable
17 workforce is available to support the wide-scale
18 deployment of zero-emission vehicles and infrastructure
19 across California.

20 Reliable infrastructure remains one of the
21 largest barriers to zero-emission vehicle adoption for
22 both everyday drivers and commercial fleets. Four
23 recommendations to break this barrier include accelerating
24 expansion, prioritizing major corridors, increasing
25 reliability and access, and maximizing existing funding.

1 Zero-emission vehicle fueling costs have a direct
2 impact on the total cost of ownership. Stabilization of
3 these costs plays a significant role in reducing the
4 overall price gap between a zero-emission vehicle and
5 conventionally fueled vehicle. From joint efforts
6 conducted with the public, agencies recommended the
7 development of new regulatory programs that address
8 consumer protection and ensure that overburdened
9 communities see the benefits of reduced emissions.

10 Later in this presentation, we will highlight
11 additional efforts that CARB is exploring to further drive
12 the market forward and continue to reduce emissions from
13 vehicles. The report additionally recommends leveraging
14 the State's purchasing power as a market participant and
15 fourth largest economy in the world, to explore options
16 for updating funding guidelines that incorporate
17 zero-emission vehicle first purchasing policies in
18 procurement and contracts and explore prioritizing
19 installation of electric vehicle infrastructure.

20 [SLIDE CHANGE]

21 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
22 ENZENSPERGER: Legislature plays a critical role in
23 providing CARB new authority, reinforcing CARB's existing
24 regulatory authority, and reducing total cost of
25 ownership, making zero-emission vehicles more affordable

1 across the state.

2 Legislative engagement helps ensure efficient
3 implementation, minimizes legal uncertainties, and
4 provides new opportunities for regulatory action.

5 Continued legislative support of the Low Carbon Fuel
6 Standard Program remains essential. The Program has
7 successfully attracted private investments into the
8 zero-emission transportation industry throughout
9 California and is a cornerstone for sustaining clean
10 transportation growth.

11 The Low Carbon Fuel Standard Program has reduced
12 the carbon intensity of California's transportation fuels
13 by almost 20 percent, with nearly 75 percent of fossil
14 diesel being displaced by biomass-based diesel, resulting
15 in reduced emissions of particulate matter and NOx.

16 The report also recommends a collaborative effort
17 between CARB and local air districts to develop and
18 implement a statewide Indirect Source Rule. Affirming
19 CARB's Indirect Source Rule authority through legislative
20 action would help enable consistent statewide
21 implementation.

22 Additionally, the report recommends that other
23 State agencies should explore consumer assurance measures
24 such as reliability, reparability standards for
25 zero-emission vehicles, and affordability of both vehicles

1 and infrastructure with possible direction from the
2 Legislature. These measures are important to boost buyer
3 confidence, make California less dependent on fluctuations
4 in the fuel market, and maintain momentum in vehicle
5 adoption.

6 [SLIDE CHANGE]

7 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
8 ENZENSPERGER: Over the past decade, CARB's portfolio of
9 incentive programs has played an integral role in the
10 development and deployment of zero-emission vehicles to
11 improve air quality and reduce the negative impacts of
12 climate change.

13 However, without reliable and consistent
14 investment, programs close unexpectedly, causing consumer
15 confusion and frustration, as well as breaking the trust
16 of industry and community partners. To sustain this
17 momentum in California, the State Budget should preserve
18 continuous funding allocation for established incentive
19 programs, in addition to exploring new sources of funding
20 to support emerging initiatives.

21 It is important to note that CARB was
22 appropriated funding from the State budget this year,
23 including a continuous appropriation for the Community Air
24 Protection Program in future budget years. However, it is
25 not enough to sustain our current suite of incentive

1 programs.

2 That being said, CARB does acknowledge that this
3 was a difficult budget year for the state, and the
4 Legislature and Governor had to make some difficult
5 decisions. We are grateful for the investments the
6 Legislature and Governor did make this fiscal year,
7 including 130 million for the Carl Moyer Program, 35
8 million for the Air Quality Investment Program, 132
9 million from settlement money for the Clean Truck and Bus
10 Voucher Incentive Project, 37 million total for regional
11 Clean Cars 4 All, and 100 million for AB 617 communities.

12 Faced with another challenging budget year, CARB
13 will continue to streamline incentives for communities and
14 businesses that need it the most. Additionally, CARB will
15 be hosting a workshop on November 13th in response to the
16 ZEV Executive Order to provide an update on our incentive
17 programs, as well as share accomplishments, challenges,
18 and lessons learned. This workshop will cover both
19 light-duty and heavy-duty incentives and is intended to
20 solicit feedback from the public on ideas for funding
21 needs and strategies to identify new or existing funding
22 sources for programs.

23 [SLIDE CHANGE]

24 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
25 ENZENSPERGER: The political and economic environment

1 surrounding California agencies has undergone significant
2 shifts since the report was published. CARB is pursuing
3 additional actions to drive forward zero-emission
4 transportation in California that reflects where we are
5 today.

6 Proposed next steps to strengthen the
7 zero-emission vehicle marketplace and reduce air pollution
8 are arranged into these four categories.

9 [SLIDE CHANGE]

10 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
11 ENZENSPERGER: From a broad perspective, CARB will
12 continue to move forward with regulatory efforts to
13 support California residents and their right to clean,
14 breathable air. These regulations will establish the
15 necessary framework to ensure accountability and
16 consistent progress.

17 Public engagement is already underway, starting
18 with the Drive Forward Light-Duty Vehicle Programs
19 Workshop held this week on October 21, followed by the
20 Drive Forward Heavy-Duty Standards and Strategies workshop
21 currently planned to take place in December of this year.
22 These Drive Forward events sustain momentum from previous
23 engagement efforts and launch the regulatory development
24 process for both the light-duty and heavy-duty vehicle
25 sectors.

1 The Drive Forward series will strengthen support
2 for zero-emission vehicle adoption and incentive programs,
3 offer transparency on timelines and policy direction, and
4 create meaningful opportunities for public input.

5 [SLIDE CHANGE]

6 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
7 ENZENSPERGER: We've already spoken about monetary
8 incentives, now let's look at non-monetary. CARB will
9 explore ways to link voluntary clean air efforts with
10 State and local government procurement, port and warehouse
11 partnerships, and contract practices. This includes
12 investigating green lanes and early access for
13 zero-emission vehicles at ports and warehouses, developing
14 early action recognition programs to establish guidelines
15 for hiring entities, and highlighting fleets and
16 manufacturers making efforts to support clean air policies
17 in the on-road vehicle sector.

18 There are three non-monetary, voluntary programs
19 currently under development that will encourage
20 stakeholders to partner with CARB. Clean Fleet Connect
21 will incentivize on-road fleets to purchase and use the
22 cleanest technology available. Drive Forward leaders will
23 support the manufacturers who will be the backbone of a
24 greener future. Finally, the California Clean
25 Construction Program will encourage off-road fleets to go

1 beyond regulatory fleet rule compliance.

2 Non-monetary incentives encourage fleets and
3 manufacturers to take advanced steps towards meeting our
4 State's clean air goals, while receiving benefits that
5 support business development, and promote sustainable
6 growth.

7 [SLIDE CHANGE]

8 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
9 ENZENSPERGER: Moving to outreach, CARB is expanding its
10 dialogue sessions to gather input that will be used to
11 shape programs, provide guidance to navigate existing and
12 future regulatory efforts, support the rural and tribal
13 communities that have been underinvested for decades and
14 face unique challenges, and empower fleets with the tools
15 and knowledge to embrace clean transportation.

16 Emphasis will be on community-driven engagement
17 by meeting people on their terms, in their spaces, and
18 discussing the topics that matter most to them. CARB aims
19 to listen, build trust, and form lasting partnerships that
20 ensure that the priorities and needs of various
21 communities are being met while advancing our goals.

22 As stable funding remains a central focus in
23 accelerating the deployment of clean technologies and
24 improving air quality, CARB is improving and streamlining
25 access to zero-emission vehicle incentive programs

1 including Drive Clean, Access Clean California, and others
2 to ensure that funding opportunities are accessible and
3 equitable.

4 CARB also plans to continue hosting heavy-duty
5 ride-and-drive events, which allow consumers to become
6 familiar with, and gain exposure to, the latest cutting
7 edge zero-emission vehicle and technologies on the market.
8 The resource fairs at these events will be expanded to
9 include vendors that can assist fleets in accelerating
10 zero-emission vehicle deployment. These events play a
11 critical role in keeping consumers engaged and informed as
12 the zero-emission vehicle market continues to grow and
13 evolve at a rapid pace.

14 In addition, ZEV Truck Stop, Cal Fleet Advisor,
15 as well as other State agency programs, will continue to
16 support zero-emission vehicle deployment by reinforcing
17 vehicle market developments, communicating financial
18 incentives, and demonstrating the beneficial functionality
19 of zero-emission vehicles.

20 [SLIDE CHANGE]

21 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
22 ENZENSPERGER: Accelerating a reduction of criteria and
23 toxic emissions in California requires collaboration and
24 fresh thinking. CARB will expand collaboration with
25 community and tribal representatives and other State

1 agencies to advance emission-reduction strategies and
2 support clean air goals. CARB is actively exploring
3 policy models from other states and international partners
4 that align with and fortify California's clean
5 transportation vision. Policies of interest include
6 innovative revenue sources for general transportation
7 funds and expanded authority to enforce zero-emission
8 zones.

9 By partnering with Section 177 states and beyond,
10 California ensures national consistency in clean air
11 policy. Internationally, CARB is exploring how to
12 harmonize emission standards to accelerate the adoption of
13 green freight strategies and ensure that California
14 remains a leader in shaping the future of clean mobility.

15 [SLIDE CHANGE]

16 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
17 ENZENSPERGER: We'd like to acknowledge those who helped
18 contribute to these recommendations, informed in
19 collaboration with other State agencies as well as the
20 public, as they outline additional actions to advance
21 progress on light-, medium-, and heavy-duty zero-emission
22 vehicle adoption in California.

23 [SLIDE CHANGE]

24 MSCD AIR POLLUTION SPECIALIST GRAMAJO-
25 ENZENSPERGER: Thank you, Board members for your time

1 today. We are happy to answer questions you may have
2 about today's presentation. And with that, I'll turn it
3 back over to Chair Sanchez.

4 CHAIR SANCHEZ: Thank you so much, Ben, for the
5 informative presentation. We will now hear from members
6 of the public who have signed up to speak on this item. I
7 will ask the Board clerks to begin calling the public
8 commenters.

9 BOARD CLERK FRENCH: Thank you, Chair Sanchez.

10 We currently have six in-person commenters who
11 have turned in a request-to-speak card, and wish to speak
12 at this time.

13 We will be showing a list of the next several
14 commenters on the screen, so you can be prepared to come
15 to the podium. I apologize in advance if I mispronounce
16 your name and I would like to remind all commenters to
17 please speak slowly, closely, and clearly into the
18 microphone for our interpreters and court reporter, and
19 also for the Board to hear you better.

20 The first public commenter is Bill Magavern.

21 BILL MAGAVERN: Thank you. Bill Magavern with
22 the Coalition for Clean Air. We continue to participate
23 in the Drive Forward process, and I'll summarize some of
24 our recommendations. First, when it comes to heavy-duty,
25 we recommend accelerating the Zero-Emission Trucks

1 Measure, which is in your SIP and that would retire some
2 of the oldest, dirtiest trucks on the road, which would
3 bring very major emission reductions, because a
4 disproportionate amount of the pollution comes from those
5 older vehicles.

6 We're pleased to see in the report the
7 recommendation for statewide Indirect Source Rule. The
8 South Coast Warehouse Rule is one that we support and
9 would like to see replicated statewide, but what's been
10 really missing is a Port Indirect Source Rule, which South
11 Coast actually committed to years ago in their Air Quality
12 Management Plan, which CARB approved, and they have
13 absolutely failed to fulfill that promise. So if the
14 District won't do it, then the State should step in.

15 When it comes to light-duty I really agree with
16 what Dr. Cliff said about the importance of equity. And
17 we need to really bring along all Californians in that
18 transition to zero emission. And that means giving them
19 the assistance they need to scrap those older, dirtier
20 cars and get into zero-emission transportation, or maybe
21 not even needing to own a vehicle, but having access to
22 clean transportation through some of the mobility options.

23 So we need to focus not only on driving new
24 sales, which is crucial, but also on cleaning up the back
25 end of the fleet. Also, let's not forget about the

1 off-road engines, which are a growing source of our
2 emissions. When it comes to the other agencies, one of
3 the CalSTA recommendations that we particularly see an
4 opportunity in is using more of the Trade Corridor funds
5 for zero-emission infrastructure. And the Energy
6 Commission should follow up the charging regulation that
7 they just adopted with a regulation on the efficiency of
8 replacement tires, which will save money and reduce
9 emissions for drivers whether they're driving electric or
10 gas powered vehicles.

11 Thank you.

12 BOARD CLERK FRENCH: Thank you. Next is Jamie
13 Hall followed by Tom Van Heeke.

14 JAMIE HALL: Good afternoon, Chair Sanchez and
15 members of the Board. My name is Jamie Hall and I lead
16 policy and extra -- external affairs for EV Realty. We
17 build, own, and operate multi-fleet truck charging hubs
18 with our first site nearing completion right now in San
19 Bernardino. So today's discussion is really sort of
20 central to our mission. The headwinds we're facing on
21 transportation electrification I think are undeniable.
22 And we're going to have to find new ways to move forward,
23 but I'm really confident what we can do this.

24 When I started working in this space 15 years
25 ago, heavy-duty electrification was really hybridization

1 and science projects. Today, the trucks are real, the
2 technology is improving, the infrastructure continues to
3 roll out, and we are hearing regularly from shippers and
4 fleets who are really looking to make the switch to
5 electric.

6 The Tesla semi in particular is generating a lot
7 of interest. The key is how do we turn this interest into
8 action. And for now, that is a healthy dose of carrots,
9 not my favorite vegetable as a kid, but i'm growing more
10 and more fond of them. Fortunately, I think we're really
11 pretty good at this in California. An example that's come
12 up earlier today, the HVIP incentive for electric trucks
13 and not reopen in September with expanded availability to
14 larger fleets, the response was overwhelming. And you
15 had, you know, thousands of orders piling up really pretty
16 quickly. Simple streamlined incentives with broad
17 eligibility work. They move the market. We just need to
18 figure out how to keep funding these programs as we've
19 been discussing this afternoon.

20 The support of environment in terms of policy
21 here in California is one reason that my company was
22 founded here and it's why we're looking first and foremost
23 to build out sites in California. HVIP is one example.
24 The Low Carbon Fuel Standard is another. We've really got
25 to continue working hard to address all the major pain

1 points, which we've been doing to date. Truck cost, risk,
2 uncertainty, building out the infrastructure, we've got to
3 keep this up in order to hit the air quality improvements
4 that we were discussing earlier. We know how to do it.
5 It's incentives. Let's keep moving.

6 BOARD CLERK FRENCH: Thank you.

7 Thank you. Next is Tom Van Heeke.

8 TOM VAN HEEKE: Good afternoon, Chair Sanchez,
9 members of the Board. Tom Van Heeke, Senior Policy
10 Advisor at Rivian Automotive, a California-based
11 Manufacturer of medium-duty vehicles including our
12 commercial van and of course the R1T and the R1S that I'm
13 sure you've seen out on the road. First, I just want to
14 say thank you to the staff and the board for the
15 informative and frankly inspiring presentation, which
16 really speaks to the continued leadership and vision of
17 this state.

18 No doubt, the Governor has set bold and ambitious
19 goals for us, but at Rivian, we believe that we're lucky
20 to be a part of this and we're optimistic about the road
21 ahead. The technology exists to address the challenge of
22 transportation emissions. And the question now is really
23 just about how do we scale and accelerate that transition.
24 We've heard a lot of really good ideas and recommendations
25 in the presentation. And there isn't time to reflect on

1 all of it right thousand. So let me just take a moment to
2 say how encouraging the new Drive Forward rulemaking
3 initiative is and to applaud the legislative and budget
4 recommendations we just heard a little bit about. The
5 LCFS is frankly an EV success story and California should
6 be proud of its history of substantial funding for
7 incentives that support cutting edge technology.

8 On that note, I want to underscore Rivian's
9 conviction that broadly accessible EV purchase incentives
10 in both the light-, and medium-, and heavy-duty vectors
11 can play a critical role and are more -- are as important
12 as ever in our current moment. People respond to
13 incentives and they are key to building a market-led
14 transition.

15 To that end, we welcome the inclusion of
16 incentives among the many excellent recommendations in the
17 multi-agency report earlier this year and in the staff
18 presentation just now and we look forward to continued
19 discussions in the weeks and months ahead about a
20 recommitment to funding EV sales incentives that are
21 broadly accessible as part of the State's comprehensive
22 policy approach to achieving its ZEV and climate goals.
23 With that, I'll thank you all very much.

24 BOARD CLERK FRENCH: Next is Evan Edgar.

25 EVAN EDGAR: Good afternoon, Chair Sanchez. I'm

1 Evan Edgar, Edgar Associates. I represent heavy-duty
2 public and private refuse fleet operators and SB 1383
3 developers as part of the California Compost Coalition.

4 Last month, we had an ACF hearing and public
5 sector showed up and how it doesn't really work, the ACF.
6 Basically, they were dismissed and the CARB staff is
7 tone-deaf to the cost and the applicability of trying to
8 do Advanced Clean Fleet. Even the dog catcher showed up
9 saying they can't get it done with wastewater, public
10 sector fleets.

11 So, it costs too much to do this program.
12 Affordability was on slide nine. And today, the solid
13 waste rates are affordable. It's about -- the City of LA
14 is about 30 to 35 bucks a household per month for a
15 three-carts system. And we got off diesel years ago.
16 We're early adopters of CNG with RNG fuel. So we're not
17 the dirty diesel guys. We are the early adopters being
18 penalized.

19 Today, with 1383, which is very important to bend
20 the climate curve, the rates are going up just for getting
21 organics out of the landfill. And the rates are going up
22 in the City of LA 20 to 30 bucks a household per month,
23 which I think people may or may not be able to afford, but
24 it's a climate change move. With the Advanced Clean Fleet
25 Rule, the City of LA will have to do \$300 million in CapEx

1 and will double the rate.

2 The Governor is doubling down on ZEV, you can
3 double down on the garbage rates. It will make it
4 unaffordable to \$100 per household per month for the
5 three-cart system because of the ZEV cost. City of Long
6 Beach, 90 -- 89 CNG trucks at \$76 million. That's a 40 to
7 50 -- 40 to 50 dollars householder per month. Once again,
8 the rates are doubling. This is not ZEV backwards. This
9 ZEV backwards not ZEV Forward, because right now we're
10 carbon negative. We're doing it cost effectively. And
11 bringing in ZEVs is carbon positive and it's not
12 affordable. We're on the wrong side of affordability and
13 we need to discuss that hopefully soon. And the public
14 sector was dismissed last month on this very issue.

15 BOARD CLERK FRENCH: Thank you.

16 Next is Maria Ruiz.

17 MARIA RUIZ: Hi. Good afternoon. My name is
18 Maria Ruiz, Associate Director of Outreach and Policy with
19 The Central California Asthma Collaborative. Actually
20 drove up here from Fresno. First and foremost, you know,
21 thank you for making this space available. And again,
22 congratulations to Lauren Sanchez. Also, thank you for
23 appointing Diane Takvorian to the AB 617.

24 I do want to state that I am here representing a
25 community that has been consistently in extreme

1 nonattainment. I don't have to go into all of that. I
2 echo what everybody else has said here. And I'm super
3 happy to hear that the San Joaquin Valley is like being --
4 you know, being represented here.

5 I want to start off first by saying that we at
6 CCAC currently cover over 36 counties when it comes to
7 zero-emission vehicle transportation outreach and
8 education, as well as application assistance for the
9 incentive rams through our EV equity program. And that's
10 something that we -- I have been assisting my team in
11 doing for the last five years, so we definitely have a lot
12 of insight when it comes to the ZEV market, and the
13 incentives, and all the good nooks and crannies when it
14 comes to applying for those incentives.

15 We do just, you know, urge CARB to consistently
16 work with San Joaquin Valley groups like ourselves to
17 craft equitable strategies and programs for communities,
18 especially those that I represent that have low digital
19 literacy. That's been a consistent problem when it comes
20 to applying for incentive program. So definitely open to
21 having that conversation.

22 Also, I did want to highlight that currently in
23 the valley, we do have the Valley CAN program, but it is
24 only for AB 617 communities. And so, residents in the San
25 Joaquin Valley can't go through the statewide program, but

1 they also can't go through the air district one currently,
2 so would love to see more funding for programs like those.

3 So thank you.

4 BOARD CLERK FRENCH: And last is Nicole Rice.

5 NICOLE RICE: Good afternoon Madam Chair and
6 members. Nicole Rice, President of the California
7 Renewable Transportation Alliance. And I'm here once
8 again to urge CARB to take immediate action to include
9 clean combustion trucks, those meeting or exceeding the 50
10 milligram NOx standard, into your strategy update to
11 advance the clean truck transition.

12 As I previously stated, your leadership has
13 already pushed the market to deploy the cleanest
14 combustion and most stringent NOx standards in the
15 country, with the X15N natural gas engine being one of the
16 first to certify to the initial Omnibus 50 milligram NOx
17 standard.

18 We all share the goal, displace diesel, improve
19 air quality, protect public health, but regulatory
20 uncertainty created by federal actions had made
21 traditional diesel the default for fleets trying to
22 navigate this dynamic landscape. Let's not make the
23 perfect become the enemy of the good. While the ZEV
24 transition continues to scale, we need a near-term
25 strategy that will keep us moving forward and complement

1 our future goals.

2 So in this spirit, we offer these two key
3 opportunities. We talked about this in the staff
4 presentation, targeted incentives that will help fleets
5 bridge the cost gap between clean combustion and diesel
6 trucks, and that incentive should be about 50,000 per
7 truck. Second, regulatory un -- regulatory certainty,
8 regular certainty that provides affirmative assurances to
9 fleets that clean air combustion trucks that are purchased
10 today won't be prematurely sidelined by federal or future
11 ZEV regulations.

12 Going forward, let's embrace a dual approach,
13 accelerating zero-emission technologies while also
14 leveraging the clean combustion solutions that we have
15 today.

16 Thank you.

17 BOARD CLERK MOORE: Thank you. That concludes
18 our in-person commenters. We currently have six
19 commenters with their hands raised in Zoom for this item.
20 I apologize in advance if I mispronounce your name. And I
21 want to remind all commenters to speak slowly and clearly
22 for our interpreters and court reporter.

23 The first commenter is Mariela Ruacho, followed
24 by Fariya Ali, Lisa McGhee, and Laura Renger.

25 Mariela, I have activated your microphone.

1 Please unmute and you may begin.

2 MARIELA RUACHO: Hi. My name is Mariela Ruacho
3 with the American Lung Association. I just want to say
4 congrats to Chair Sanchez on your new role with -- as CARB
5 Chair and we look forward to working with you and the rest
6 of the Board. We thank you, and the Board, and the staff
7 for committing to move forward with reducing emissions
8 missions from vehicles of all classes setting new
9 standards following its federal attempts to interfere with
10 California clean air protections.

11 We encourage you to continue pursuing the
12 deployment of zero-emission vehicles. As the stuff --
13 staff presented, there is a demand for ZEVs in California
14 with over 29 percent of vehicles sold but are -- which
15 being said are ZEVs in the last quarter. And then also
16 ZEV -- zero-emission truck sales continue to rise as well.
17 Nearly one in four trucks sold last year were ZEVs. We
18 need to keep the momentum going as much as responsible.
19 These policies play an important role in meeting clean air
20 standards, improving public health, and mitigating climate
21 events. We urge you to retire old trucks that emit the
22 most pollution and pursue new standards that offer the
23 maximum real-world protections against smog-forming
24 emissions, particle emissions, and greenhouse gases, while
25 maintaining a momentum in the light- to heavy-duty ZEV

1 market.

2 We look forward to ongoing work to protect the
3 health of Californians and from our air end the climate
4 crisis. Thank you so much.

5 BOARD CLERK MOORE: Thank you.

6 Fariya Ali, I have activated your microphone.
7 Please unmute and you may begin.

8 FARIYA ALI: Good afternoon, Chair Sanchez and
9 Board members. My name is Fariya Ali, speaking today on
10 behalf of the Pacific Gas and Electric.

11 We appreciate the leadership CARB continues to
12 show in the clean transportation space. PG&E also remains
13 committed to advancing EV adoption. Our long-term
14 strategy aims to support three million EVs in our service
15 area by 2030, unlocking 550 megawatts of flexible load.
16 This isn't just about EV drivers. It benefits all
17 customers. Our analysis shows that everyone million EVs
18 added to the grid could lower electricity rates for all
19 our customers by up to two percent thanks to more
20 efficient grid use.

21 We have a growing suite of customer programs and
22 incentives aimed at supporting this goal. For example, we
23 are now partnering with Valley CAN, IBEW 1245, the Bay
24 Area Air District, and other local partners to run a
25 community-driven project in the Bayview Hunters Point to

1 align State, regional, and PG&E's transportation and
2 building electrification programs, such as our pre-owned
3 EV rebate program, to make it easier for our disadvantaged
4 customers to actually enroll and take advantage of these
5 opportunities.

6 I wanted to call out this effort, because it
7 demonstrates collaboration across various groups to
8 optimize and make our existing programs more effective and
9 impactful. In the situation we find ourselves in today
10 with fewer resources, not more, let's turn this into an
11 opportunity to improve what we do have. We appreciate the
12 collaboration we've seen between the various State
13 agencies, and we hope that continue. And we also see an
14 opportunity to streamline permitting, including upstream
15 utility infrastructure to help speed up customer
16 energization.

17 PG&E is eager to collaborate with the State --
18 with the State on this and other ZEV Forward initiatives.

19 Thank you.

20 BOARD CLERK MOORE: Thank you.

21 Lisa McGhee, I have activated your microphone.
22 Please unmute and you may begin.

23 LISA MCGHEE: Good morning -- or good afternoon.
24 Thank you to this Board and our State Agencies for your
25 continued support to be innovative and help to ensure we

1 attain our climate goals. I'm Lisa McGhee with Tom's
2 Truck Center and we are a commercial truck dealership in
3 Los Angeles since 1949. We're an HVIP dealer with over
4 five medium-, heavy-duty zero-emission vehicles, both
5 ZEVs, in EVs and fuel cell. We became an HVIP dealer in
6 2012 submitting 762 vouchers to date and have redeemed
7 over 500. We operate two medium-, heavy-duty depot
8 stations and are installing a fuel cell station at our Los
9 Angeles dealership over the next two years.

10 On September 9th, HVIP reopened at 335 million
11 and only 63 million in drayage funding remains currently
12 available. A total of 272 million was subscribed within
13 one week by only two OEMs. Tesla submitted 860 vouchers,
14 BYD submitted 177 vouchers, resulting in 182 million, or
15 76 percent, of the reopened funding. The HVIP funding
16 program is a first-come, first-served program, which does
17 work for equity, as only the most resourceful will get the
18 funds.

19 The Board implemented an OEM rolling cap in
20 2022 -- 2020, which stated this avoids large orders and
21 tying up the dollars for a long period of time. The OEM
22 rolling soft cap was removed and many of the industry
23 stakeholders are concerned by its removal. We are
24 requesting some type of solution, either a guardrail or a
25 set-aside, to ensure that incentives are balanced,

1 accessible to all HVIP OEM dialers, and for interested
2 fleets.

3 Thank you.

4 BOARD CLERK MOORE: Thank you.

5 Our next commenter is Laura Renger. I have
6 activated your microphone. Please unmute and you may
7 begin.

8 LAURA RENGER: High. Good afternoon. Laura
9 Renger from the California Electric Transportation
10 Coalition. First, I just want to congratulate Chair
11 Sanchez on her appointment, and I wanted to thank CARB
12 staff and the Board for the presentation this morning, and
13 also for the robust listening sessions that occurred over
14 the summer on this issue.

15 At CalETC, we strongly support the ZEV Forward
16 initiative and the discussion pulse points that have been
17 identified in the presentation, as well as the priority
18 recommendation areas. As CARB noted, legislative action
19 to secure durable funding for zero-emission transportation
20 is going to be critical in achieving our goals, as will
21 continued support for a strong Low Carbon Fuel Standard.

22 In addition to those two top priorities, we also
23 have additional recommendations that were included in our
24 letter over the summer, including the recommendation that
25 the Energy Commission work with the utilities to

1 facilitate utility access to more granular data for EV
2 planning. And the recommendation that we prioritize
3 incentives for public agencies that are purchasing medium-
4 and heavy-duty vehicles pursuant to ACF. We also support
5 establishment of a statewide EV charging permitting
6 process, and we support prioritization of programs that
7 incentivize adoption of electric vehicles on managed
8 charging programs.

9 Lastly, we have some strong revisions to the CPUC
10 submetering protocol, and we recommend that the State
11 deploy scalable Level 1 charging at multi-family housing.

12 So thank you for hearing these recommendations,
13 thank you for this process, and we look forward to
14 continuing to work with you on this important effort.

15 BOARD CLERK MOORE: Thank you.

16 Our next commenter is Elizabeth Szulc. I have
17 activated your mic. Please unmute and you may begin.

18 ELIZABETH SZULC: Thank you. Thank you to the
19 Board and State agencies for their leadership, and
20 congratulations to Chair Sanchez on her appointment.

21 My name is Elizabeth Szulc, Policy Program
22 Manager at CALSTART. CALSTART continues to support
23 California's leadership in advancing the transition to
24 zero-emission vehicles. The State's clear direction and
25 consistency have driven private sector confidence and

1 spurred billions in manufacturing, infrastructure, and
2 workforce investments across California.

3 We appreciate CARB's continued focus on
4 maintaining the state's momentum in ZEV adoptions through
5 smart, coordinated action, aligning regulations,
6 incentives, and market signals to accelerate technology
7 deployment, and provide industry with long-term planning
8 certainty. California's clean transportation policies
9 have already catalyzed one of the fastest growing advanced
10 manufacturing and supply chain sectors in the country.

11 Strengthening these efforts ensures California
12 remains the epicenter of transportation innovation, job
13 creation, and global competitiveness. CALSTART looks
14 forward to continuing to partner with CARB to design and
15 implement the next generation of regulatory and incentive
16 frameworks, ones that maintain California's leadership,
17 sustain industry confidence, and enable continued progress
18 toward a modern and efficient zero-emission transportation
19 system.

20 Thank you.

21 BOARD CLERK MOORE: Thank you.

22 Our next commenter is Bianca Lopez followed by
23 Robert Wittkamm, and Adam Browning.

24 Bianca, I have activated your microphone. Please
25 unmute and you may begin.

1 BIANCA LOPEZ: Hi. Good afternoon. Can you hear
2 me?

3 BOARD CLERK MOORE: Yes.

4 BIANCA LOPEZ: Thank you. As I mentioned
5 earlier, we're -- sorry. I'm going to start. As we move
6 forward to a zero-emission future, we must ensure that
7 this transition is just, consistent, and equitable.

8 Right now, our vehicle retirement programs are
9 fragmented, as I mentioned earlier, at the SIP public
10 comment portion. While the DCAP Program allows residents
11 to retire vehicles from 2010 and older, the San Joaquin
12 Valley district still only supports vehicles from 2006 and
13 older. The gap leaves many valley residents, especially
14 low-income families and small businesses, behind. These
15 programs should be aligned and expanded so everyone has a
16 fair opportunity to transition to cleaner transportation.

17 We also believe in a just transition for small
18 businesses and local agencies. We hope that local
19 agencies can get support who are still investing millions
20 of dollars in gas powered fleets. We need to help -- we
21 need some help at local spending to shift to zero-emission
22 vehicles more quickly and responsibly.

23 I'd also like to mention that zero emission
24 cannot mean false solutions. Specifically, hydrogen
25 storage and production facilities should not be placed in

1 disadvantaged communities that already bear the heaviest
2 pollution burden. Clean air for some cannot come at the
3 expense of others, which, you know, are new technologies,
4 and they should not be subsidized without accountability.

5 I want to just also say that my name is Bianca
6 Lopez and I'm co-founder of Valley Improvement Projects.
7 And we are proud members of the Clean Vehicle Empowerment
8 Collaborative who focus on community-based education and
9 awareness in the most disadvantaged communities and look
10 forward to increasing equity with you all.

11 Thank you.

12 BOARD CLERK MOORE: Thank you. Robert Wittkamm,
13 I have activated your microphone. Please unmute and you
14 may begin.

15 Robert, are you there?

16 ROBERT WITTKAMM: Uh-oh. Uh-ho. Hello.

17 BOARD CLERK MOORE: We're hear you.

18 ROBERT WITTKAMM: Hello?

19 You do, yes?

20 BOARD CLERK MOORE: Yes, we hear you.

21 ROBERT WITTKAMM: Okay. Sorry, this is my first
22 time. All right. Hey, thank you for doing this. I'm
23 just a regular resident of California. I -- Mr. Moore
24 assured me that my email labeled "In Bus We Trust" would
25 be put in front of all of you.

1 Thank you very much. It's really a trivial
2 matter in the large scheme of things that I'm putting
3 before you. If you read the email, you'll see all that.
4 And the reason I think I get to speak with you is I'm the
5 guy that stops in the road. When nobody else is going to
6 stop and help you, I'm the guy who does it, okay? I've
7 pulled people out of -- only one guy out of a burning car.
8 I assure you that it sucks, but sometimes somebody has to
9 do it. I'm that guy. That's why I get to put that letter
10 in front of you. So if you can do something about it,
11 that would be fantastic.

12 The rest of my time is just to put raise on you
13 all. It's very commendable what you all do, okay? The
14 state of California is recognized worldwide as a leader in
15 air quality management. And you probably get a lot of
16 abuse all the time. People fight you every step of the
17 way. But so you know, the general public sees what you do
18 as a quality thing. And I want you all to go home, next
19 time you see yourself in the mirror and smile, because you
20 do good work. You really do. It affects the entire
21 world, not just California. This air that we produce goes
22 everywhere in the world. You know that.

23 And it really needs to be said, so thank you all
24 very much. I appreciate your time. Have a good day.

25 BOARD CLERK MOORE: Thank you.

1 Our final commenter for this item is Adam
2 Browning. Adam, I have activated your microphone. Please
3 unmute and you may begin.

4 ADAM BROWNING: Many thanks. I am Adam Browning.
5 I'm with Forum Mobility. We are a company that builds
6 large truck charging depots and provides carriers with
7 charging or a truck plus charging together. We were
8 founded --

9 BOARD CLERK MOORE: Adam, your volume is quite
10 low. Can you speak into the mic, please, if that's an
11 ability that you have.

12 ADAM BROWNING: Sure. Is this any better?

13 BOARD CLERK MOORE: Yes. Thank you very much.

14 ADAM BROWNING: Apologize. Forum Mobility was
15 founded in 2001 around the -- you know, the auspices of
16 Advanced Clean Fleets with the idea that this transition
17 would be mandated. I would say even then our customers
18 really only became our customers when we were able to
19 provide them with a cost per mile that beat diesel and
20 with the advent of the Advanced Clean Fleets no longer
21 being the regulatory rule of the land. With this
22 transition to the carrot-based approach, I just want to
23 say that it is really working.

24 We are -- with the incentives that are
25 gratefully -- that we are, you know, pleased to accept,

1 that are provided by CARB, we are able, through the LCFS
2 and through the HVIP program, and through the CEC energize
3 funds, are able to provide a product that can beat diesel
4 on a cost per mile. So, I just really want to
5 encourage -- thank and encourage CARB to continue on this
6 pathway. We are now in a position where we have a
7 generational opportunity to really make a transition to
8 zero-emission freight. The pathway that we're on is
9 working and I would like to see it continued.

10 Thank you.

11 BOARD CLERK MOORE: Thank you. That concludes
12 public testimony for this item. I'll return the
13 microphone back to Chair Sanchez.

14 CHAIR SANCHEZ: Thank you. Staff, are there any
15 issues raised in the comments that you would like to
16 address.

17 EXECUTIVE OFFICER CLIFF: Yes, Chair. Commenter,
18 Maria Ruiz from CVAQ mentioned that there is a -- that you
19 would have to be in a 617 community to take advantage of
20 Clean Cars 4 All. It's kind of a nuanced issue, so we're
21 going to follow up with her. But what I wanted to
22 indicate is that while the San Joaquin Valley's program is
23 currently closed for new applications, we are infusing
24 more money into all of the programs. There's \$43 million
25 that will be put into the programs using the formula that

1 this Board adopted previously, that will help get those
2 programs continuing through hopefully the spring. But,
3 you know, it's very clear that the programs are going to
4 need more money to continue beyond that time frame.

5 So, I just wanted to note that there was also a
6 surge in applications as a result of the loss of the
7 federal tax credits going away on September 30. So all
8 the programs saw a surge. They're going to need more
9 money. And so, while that particular issue is very
10 nuanced, if you're trying to use money from AB 617 for
11 Clean Cars 4 All, then, yes, it would have to be in a --
12 in a -- in a community, but we're trying infuse some more
13 money right away. The Legislature gave us 43 million
14 additional, and, you know, hopefully, we can see more in
15 the -- in the future.

16 CHAIR SANCHEZ: Great. Thank you.

17 Board members, do you have any questions?

18 Mr. Rechtschaffen.

19 BOARD MEMBER RECHTSCHAFFEN: Not so much a
20 question, as a comment and to underscore what we've said
21 that we're not going away here in California. We have a
22 lot of tools at our disposal, and that are out of reach of
23 the overbearing and overreach federal government, and
24 we're going to be using them, and we are using them. I
25 was delighted to see our partners at the other agencies,

1 the CEC, the PUC, GO-Biz, and CalSTA. We've always had a
2 whole-of-government approach to transportation
3 electrification and we absolutely need that more than
4 ever.

5 And we didn't have time to go into them, but the
6 tools we are using are not just ones that we have as part
7 of our State authority. They're very creative and
8 innovative. The reliability standards for uptime by the
9 Energy Commission. We're paving the way there. The
10 Public Utilities Commissions, in the geeky electricity
11 weeds, but allowing for flexible connection that allows
12 for new medium- and heavy-duty stations to be sited when
13 the full upgrades haven't been completed. That's
14 innovative. I would put our Low Carbon Fuel Standard and
15 our infrastructure capacity crediting in there as well.

16 It's really heartening to hear Adam Browning, our
17 last speaker, say that for his medium- and heavy-duty
18 customers, the carrots -- the carrot approach is working.
19 Stacking incentives is working to make these investments
20 pencil out.

21 So, there's a lot of positive that we can and
22 will do, and we'll continue to search for innovative
23 solutions. And I strongly support the recommendations in
24 the report to get authority for Indirect Source Rule, for
25 procurement, for focusing on equity, many other items,

1 continuous funding allocation and so forth.

2 CHAIR SANCHEZ: Thank you.

3 Dr. Shaheen.

4 BOARD MEMBER SHAHEEN: Thank you, Chair. I want
5 to echo Board Member Rechtschaffen's points about just
6 being energized here, hearing the presentation of our
7 guest speakers representing different agencies working
8 alongside CARB, and with our CARB staff. We've got a lot
9 of tools.

10 One of them I would just like to draw your
11 attention to that I got pretty excited about when I heard
12 my briefing yesterday and that's low-emission zones. And
13 we're seeing a lot of activity in this area. New York
14 city is applying pricing and it's working. And we're
15 seeing people shifting away from cars more towards taking
16 public transit and I think these types of tools are really
17 exciting. And we can apply them, you know, not just in a
18 cordon or road pricing fashion car, but we can apply them
19 at the curb, we can apply them in a parking context, and
20 we can certainly apply them in terms of access to the city
21 core and base it on the propulsion system.

22 So I think there's many exciting tools. Indirect
23 Source Rule sounds great at a statewide level, along with
24 all of the suite of incentives. But I think there are
25 tools that we haven't experimented as much with, that we

1 can look to other nations, and also just to other sister
2 cities that are applying some of those. So those were my
3 thoughts.

4 Thank you.

5 CHAIR SANCHEZ: Thank you, Dr. Shaheen.

6 Dr. Pacheco-Werner, I saw you come on screen.

7 BOARD MEMBER PACHECO-WERNER: Oh, yeah. Thank
8 you, Chair. Yeah. You know, I just -- I really want to
9 thank staff for coming to the San Joaquin Valley to hear
10 from our stakeholders on this issue. I think it is very
11 critical for me, and, you know, for CARB, and all the
12 State agencies, when we think about equity, it is about
13 problem solving from where it's worst first. And if it
14 can work there, it can work in other places. And to me,
15 that's doing the hard equity work.

16 And so, I do -- I do think that the approach of
17 coming to places like the San Joaquin Valley and hearing
18 the challenges for ZEV here first is so critical to
19 ensuring we have a chance to get it right and to ensure
20 access for everyone.

21 I will say that even in places like the San
22 Joaquin Valley with all of the challenges, I think that we
23 do have to take a little bit of a stock, as we move the
24 next phase, to use the data that we have available to
25 see -- to also fuel what has worked as well, because I

1 think that we have a lot of data about what has worked
2 well, what we've been able to implement well and what were
3 the challenges in the past. And not to say that we can't
4 ever solve for those challenges, but I would like to see
5 that where we go -- where we're going next is also
6 informed from the data of what was successful and what was
7 challenging in the past.

8 And so for example, leading from evidence in
9 terms of like something that was very -- that is very
10 successful is like the turnover of light-duty vehicles and
11 those extreme programs, you know, leaning into the
12 practices that have been most -- shown to be most
13 equitable in terms of their results. I think that's the
14 kind of direction that we want to move forward.

15 And also, I will say that for me it really is not
16 all about -- in terms of looking at heavy-duty, it is
17 never just about the big fleets, because when I look at
18 places like -- places that CARB staff has been to, like
19 Malaga, which is a small unincorporated community in
20 Fresno County. There are no huge Amazon fleets there.
21 There definitely are nearby, but in the community itself,
22 it's all those smaller companies, but that's completely
23 surround that community.

24 And so, when we think about how we drive
25 innovation, I know that it's so challenging right now when

1 it comes to heavy-duty. And the temptation is to just
2 think about the big fleets, but there are also communities
3 that are impacted by fleets of all sizes that we need to
4 think about near-term solutions for them, as we're planing
5 for the long-term solutions in our ambitious goals that I
6 fully support.

7 So, thank you, Chair. And I will -- I will say
8 that one of the things that I had a question about, I
9 really appreciated the calendar on the regulatory efforts,
10 but I also wanted to note if there's plans within this
11 space to continue to have more community workshops.

12 EXECUTIVE OFFICER CLIFF: That's definitely part
13 of the plan as we're developing this Drive Forward series.
14 Community workshops are built into the process. I don't
15 have exact dates now, but absolutely.

16 BOARD MEMBER PACHECO-WERNER: Thank you so much.

17 CHAIR SANCHEZ: Thank you, Dr. Pacheco-Werner.
18 I'll close on a few thoughts. First, when the Governor
19 issued his first zero-emission vehicle Executive Order, we
20 were -- back in 2020, statewide EV sales were at four
21 percent. Someone will have to check my numbers, around
22 four percent. We are now at 29 percent, a tremendous
23 amount of progress just in the last five years, and it is
24 true that this revolution isn't just in California or the
25 17 states that follow our clean car standards. Globally,

1 we are projected to be at 25 percent EV sales by the end
2 of this year.

3 So we are in the business of making sure that
4 California doesn't get left behind in this economic
5 revolution and in making sure that all of our communities
6 up and down the State benefit from moving to cleaner cars
7 and cleaner trucks. So, I want to thank the staff who
8 perhaps thought they would have longer than 60 days when
9 the Governor issued this Executive Order. Alas, time is
10 of the essence. And this was an important response to
11 again the unlawful revocation of our waivers and the
12 congressional action earlier this year.

13 So, a tremendous amount of work by staff, our
14 sister agencies, stakeholders, communities, private sector
15 businesses, innovators, and there is so much work to do in
16 this space going forward. And this -- as Chair of the
17 Board, but I'm sure most Board members feel this way as
18 well. Excited to roll up our sleeves and keep this moving
19 forward.

20 With that, we will keep moving forward and the
21 last item on our agenda today is Item number 25-7-4,
22 public meeting to hear an update on the California
23 Satellite Methane Project, CalSMP.

24 If you are here with us in the room and wish to
25 comment on this item, please fill out a request-to-speak

1 card as soon as possible and submit it to a Board
2 assistant. If you are joining us remotely and wish to
3 comment on this item, please click the "Raise Hand" button
4 or dial star nine now. We will first call on in-person
5 commenters followed by remote commenters, when we get to
6 the public comment portion of this item.

7 Taking action to reduce methane is critical to
8 our climate work. Because of methane's potency, 80 times
9 the global warming potential of carbon dioxide, and its
10 relatively short lifetime in the atmosphere, reducing
11 methane emissions can help mitigate warming in the near
12 term and prevent catastrophic changes to our climate.

13 California is taking action on methane on many
14 fronts, including efforts to prevent its formation and to
15 capture methane where emissions cannot be avoided. We are
16 leveraging advanced technologies and data to support these
17 efforts. CARB has a long history of leading with science.
18 For many, years we have supported a robust research
19 program to inform our regulations and guide our policies.

20 The California Satellite Methane Program is a
21 shining example of the success of that approach. More
22 than an decade of work has culminated in this
23 world-leading project.

24 Many in the room I believe were in the room when
25 Governor Brown -- former Governor Brown announced that we

1 would be, "Launching our own damn satellite." Years
2 later, Governor Newsom worked with the Legislature to
3 secure a hundred millions dollars in State funding from
4 our Cap-and-Trade Program, now Cap-and-Invest, to fund
5 this work. And it is just a tremendous honor and joy to
6 be hearing from the team today.

7 By detecting leaks quickly, the satellites allow
8 us to take swift action to address them, curbing emissions
9 of the potent greenhouse gas, and critically helping to
10 protect communities near emission sources.

11 To make the satellites' data actionable and
12 support effective methane reduction, that data needs to be
13 integrated into our regulatory frameworks. And that is
14 exactly what we are doing. We have updated our oil and
15 gas methane regulations to require operators to take
16 action when informed of satellite-detected methane
17 emissions, and we will be considering similar updates to
18 our landfill methane regulation later this year.

19 Importantly, the satellites provide worldwide
20 detection of methane and the data they collect is made
21 public helping drive global action on methane. California
22 plays a leading role internationally in methane mitigation
23 through partnerships like the Subnational Methane Action
24 Coalition and the satellite program support that work.

25 I'm excited to hear today's informational update

1 on this critical program.

2 Dr. Cliff, would you please introduce the item.

3 EXECUTIVE OFFICER CLIFF: Thank you, Chair
4 Sanchez.

5 The California methane -- Satellite Methane
6 Program, or CalSMP, is a first-of-its-kind project that
7 harnesses state-of-the-art satellite data to detect large
8 plumes of methane, which is more than 80 times more potent
9 than carbon dioxide over a 20-year life time frame.

10 In the middle of this year, CARB began receiving
11 a nearly daily stream of satellite methane plume images
12 across the state. This satellite system was built and is
13 operated by our partners at Carbon Mapper and Planet.
14 This is supported by \$100 million in appropriated State
15 funding, which builds upon years of CARB-funded research
16 projects using the technology on airplanes to demonstrate
17 the usefulness of the data, and finding and fixing leaks
18 quickly.

19 The benefits of this project are already clear:
20 Early results demonstrate that this state-of-the-art
21 satellite data can find large methane leaks within days,
22 which can help fill gaps between periodic inspections. In
23 many cases, operators are repairing leaks within days of
24 being notified by CARB. Thereby, preventing the release
25 of many metric tons of greenhouse gas emissions, avoiding

1 loss of valuable natural gas, and protecting nearby
2 communities. The project has also demonstrated that this
3 type of data can be paired with regulations in the oil and
4 gas sector and CARB is exploring similar provisions in
5 other emission sectors, such as for landfill methane to
6 considered by the Board next month. This pioneering work
7 by CARB is the first such effort in the world and the work
8 that we are doing can serve as a foundation for other
9 jurisdictions to adopt and employ to fit their needs.

10 I would like to acknowledge the hard work of CARB
11 staff in building this project from the ground up, our
12 research and technology partners, and the many communities
13 who have engaged with us on the project. Their efforts
14 ensure that California not only meets its goals, but also
15 serves as a leader and a model for others around the
16 world.

17 The presentation includes two parts. First,
18 staff will provide a short history and status update on
19 the Data Purchase Program. Second, Chief Executive
20 Officer Riley Duren of Carbon Mapper will present on the
21 technology and broader applicability beyond just
22 California. As we see data being removed or no longer
23 collected at the federal level, these satellites can
24 provide actionable data for other states and nations.
25 There is a strong interest in the philanthropy community

1 to support climate action. The satellite data provide a
2 clear path for data to action.

3 I will now ask Dr. Emily Yang of the Research
4 Division to begin the staff presentation.

5 Dr. Yang.

6 (Slide presentation).

7 RD AIR POLLUTION SPECIALIST YANG: Thank you, Dr.
8 Cliff. Good afternoon, Chair Sanchez and members of the
9 Board. Today, I will be presenting an update on the
10 California Satellite Methane Project or CalSMP.

11 [SLIDE CHANGE]

12 RD AIR POLLUTION SPECIALIST YANG: First, I will
13 start with a short overview of the history of CalSMP.
14 CARB and its partners have been developing and
15 demonstrating technology to remotely detect methane
16 emissions since 2015. What started as a research project
17 using remote sensing technology on aircraft has evolved
18 into a satellite based methane plume detection project.
19 And recently, CalSMP has been integrated into CARB's
20 regulatory programs and emission reduction efforts, which
21 will be the main topic of this presentation.

22 [SLIDE CHANGE]

23 RD AIR POLLUTION SPECIALIST YANG: Methane is a
24 very potent greenhouse gas and is the main focus of CalSMP
25 It is the second largest contributor to human-caused

1 climate change just behind carbon dioxide. However,
2 methane has a global warming potential about 80 times
3 higher than carbon dioxide on a 20-year time frame,
4 meaning that pound for pound methane contributes 80 times
5 more strongly to climate change than carbon dioxide. The
6 reason why carbon dioxide is the largest contributor to
7 climate change overall is due to the much higher amount in
8 the atmosphere.

9 Importantly, methane only stays in the atmosphere
10 for about 12 years compared to hundreds of years for
11 carbon dioxide. So methane is referred to as a
12 short-lived climate pollutant.

13 Because methane is both a potent and short lived,
14 reducing methane emissions is a powerful way to reduce
15 climate warming in the near term. Thus, reducing methane
16 emissions now is critical, not just in California, but
17 globally.

18 [SLIDE CHANGE]

19 RD AIR POLLUTION SPECIALIST YANG: In particular,
20 satellite data can support efforts to achieve our climate
21 targets. The State of California has a number of major
22 climate targets. SB 32 established California's target to
23 achieve at least 40 percent reduction in an anthropogenic
24 greenhouse gas emissions below 1990 levels by 2030.
25 Meanwhile, SB 1383 established the target to achieve a 40

1 percent reduction in methane emissions below 2013 levels
2 by 2030. And AB 1279 established the State's targets to
3 achieve both carbon neutrality and an 85 percent reduction
4 in anthropogenic greenhouse gas emissions below 1990
5 levels by 2045. Significant cuts to methane emissions are
6 directed by legislation and necessary for reaching the
7 overall statewide targets.

8 CARB's Oil and Gas Methane Regulation or COGR,
9 and the Landfill Methane Regulation, or LMR, target
10 methane emissions and can be supported by satellite-based
11 methane data. While these regulations are effective on
12 their own, satellite data can help through providing
13 frequent monitoring for large concentrated emissions. In
14 fact, the satellite data are already being integrated into
15 our regulatory programs at CARB.

16 [SLIDE CHANGE]

17 RD AIR POLLUTION SPECIALIST YANG: There are
18 different types of satellite detectors, but methane plume
19 imaging is the type of that we are focusing on in this
20 presentation. Plume imagers measure sunlight reflected
21 from the ground and detect small changes in the reflected
22 light caused by methane. Unlike other satellite-based
23 sensors, plume imaging sensors are specifically designed
24 to produce detailed pictures of methane plumes with high
25 spatial resolution. These types of methane plume images

1 are most useful for detecting large single sources of
2 methane.

3 A typical scan covers a rectangular area of about
4 one to two thousand square kilometers, roughly the size of
5 Sacramento County or Orange County. Typically, the
6 satellite has four or more opportunities each week to scan
7 a part of California. On the right, we can see an example
8 of a scan over an oil and gas field in Central California.
9 The brightly colored shapes in the image are three methane
10 plumes. The shapes represent areas with high methane
11 concentrations and each plume has a distinct origin.

12 [SLIDE CHANGE]

13 RD AIR POLLUTION SPECIALIST YANG: CARB and its
14 partners have been using plume imaging technology to
15 detect methane plumes for the last decade. We began with
16 the California Methane Survey, a joint project between
17 CARB, the California Energy Commission, and NASA's Jet
18 Propulsion Laboratory. The survey included several months
19 of flights from 2016 to 2018, where an airplane with a
20 plume imaging instrument on board flew over 80 percent of
21 methane sources in the state.

22 The California Methane Survey proved the
23 potential of this type of technology to identify fixable
24 leaks. Three other CARB-supported flight campaigns took
25 place from 2020 to 2023. These campaigns focused on

1 building up systems and further testing the utility of the
2 data. CARB and its partners used the plume imaging
3 technology to find large sources of methane and worked
4 with industry to voluntarily fix leaks.

5 This was a proof of concept for this model of
6 methane mitigation and produced real-world reductions in
7 greenhouse gases. Using similar plume imaging technology
8 onboard a satellite, CARB has scaled up its operations to
9 satellite-based monitoring to further our greenhouse gas
10 reductions.

11 [SLIDE CHANGE]

12 RD AIR POLLUTION SPECIALIST YANG: CalSMP was
13 made possible through a hundred million dollar State
14 investment in satellite methane data, which was part of
15 California's climate commitment budget in 2022. Of the
16 hundred million dollars, 95 million are dedicated to
17 buying satellite data through a contract that was awarded
18 through a competitive solicitation to Carbon Mapper. And
19 the satellites are operated by their partner Planet Labs
20 PBC.

21 Five million dollars of the State investment are
22 allocated to community engagement related to the project.
23 A competitive grant solicitation will be released with one
24 or more grants awarded. More information on the community
25 grant solicitation will be provided on a later slide.

1 CalSMP has four major goals: detect methane
2 sources, use the these detections to support regulatory
3 and voluntary action to reduce methane emission, share
4 data with the public, and raise global awareness of our
5 efforts and processes through data transparency. CARB
6 started receiving data in early summer.

7 [SLIDE CHANGE]

8 RD AIR POLLUTION SPECIALIST YANG: CalSMP is a
9 first-of-its-kind project using groundbreaking satellite
10 remote sensing technology to initiate methane emission
11 reductions, in particular through regulatory action.
12 California is the first jurisdiction in the world to
13 launch a project like this and is paving the way for other
14 jurisdictions who may wish to use satellite data to
15 achieve reductions in greenhouse gases.

16 CARB assembled an in-house team to develop the
17 CalSMP process and build the components needed for the
18 project, including a data management tool built using open
19 source frameworks wherever possible. CalSMP is developing
20 brand new approaches to notify operators and State and
21 local partners quickly, as well as working to provide the
22 public with accessible and helpful information.

23 [SLIDE CHANGE]

24 RD AIR POLLUTION SPECIALIST YANG: One of the
25 major components that CARB staff have developed for CalSMP

1 is the data pipeline. The data pipeline was created to
2 provide a reliable and repeatable way of processing and
3 storing all data. It has several automated features
4 designed to increase our efficiency in processing the
5 data. The pipeline begins with plume data being
6 automatically ingested from the vendor.

7 The data system then supports CARB staff with
8 many functions, including quality control,
9 cross-referencing infrastructure databases, preparing
10 notifications to be sent to operators, and tracking
11 operator responses. As the project continues, these data
12 sets will grow, allowing us to gain further insight into
13 the types of leaks that are occurring from various
14 sources. The goal is to share this information on a
15 publicly available dashboard.

16 [SLIDE CHANGE]

17 RD AIR POLLUTION SPECIALIST YANG: This slide
18 shows the timeline of events for sectors that have
19 regulatory requirements to respond to plume notification.

20 The first step is plume detection. Plume
21 detections are transferred to CARB from the vendor,
22 typically within 48 hours of the observation.

23 The second step is determining source and event
24 information. In this step, CARB staff perform plume data
25 quality control and then use the location information from

1 the plume detection and draw from our internal databases
2 to determine the source and operator.

3 Step three is to notify the facility operator
4 that a plume was found. This is currently done via an
5 email that is automatically generated by the system. The
6 email is reviewed by CARB staff before it is sent to the
7 operator. Staff tracked the progression of the
8 notification and all responses.

9 The last step is for the operator to take action.
10 These actions include inspections, repairs, and reporting
11 back to CARB.

12 After development and upcoming release of a
13 public dashboard, plumes and actions taken to address them
14 will be made public after 30 days, unless the plumes are
15 high priority emission plumes that have the potential to
16 pose a risk to nearby communities, in which case, this
17 information would be shared with emergency services as
18 soon as it is available.

19 [SLIDE CHANGE]

20 RD AIR POLLUTION SPECIALIST YANG: Next, we will
21 discuss regulations relevant to CalSMP. CARB's Oil and
22 Gas Methane Regulation, or COGR, regulates the oil and gas
23 sector. This regulation sets methane emission limits and
24 operational practices for oil and natural gas facilities.
25 In 2024, COGR was amended to include requirements for

1 action if CARB notifies operators of satellite remote
2 sensing information. The Executive Officer approved the
3 use of methane plumes detected through CalSMP under this
4 provision. The requirements include timelines under which
5 operators must perform inspections, repair equipment, and
6 report information about leaks back to CARB.

7 [SLIDE CHANGE]

8 RD AIR POLLUTION SPECIALIST YANG: Another
9 relevant regulation is the Landfill Methane Regulation or
10 LMR, which requires applicable landfills to reduce methane
11 emissions by using emissions monitoring and gas collection
12 systems. Currently, there is no requirement under LMR for
13 landfills to respond to satellite methane plume
14 notifications, so landfill cooperation with CalSMP is
15 voluntarily.

16 However, all notifications sent to landfills are
17 also shared with our Enforcement Division and other
18 regulatory partners, including air districts who may use
19 these data to prioritize site inspections. CARB is
20 currently considering provisions similar to COGR in a
21 forthcoming amendment that would require operators to take
22 action if notified of a plume detected from their
23 landfill. Amendments to the LMR, including this
24 provision, are currently scheduled to be discussed at the
25 November Board meeting.

1 [SLIDE CHANGE]

2 RD AIR POLLUTION SPECIALIST YANG: Both COGR and
3 LMR require quarterly leak inspections on the ground as
4 part of their requirements for Leak Detection and Repair,
5 or LDAR. Satellite data can help support LDAR by scanning
6 for large leaks more frequently, filling in the gaps
7 between the quarterly inspections. In addition to filling
8 in gaps, satellite data can provide further coverage -- in
9 addition to filling in gaps, satellite data can provide
10 further coverage if leaks are detected from equipment that
11 is not normally required to be inspected through
12 conventional LDAR.

13 [SLIDE CHANGE]

14 RD AIR POLLUTION SPECIALIST YANG: As mentioned
15 earlier, CARB staff are currently working on a community
16 grant solicitation within an estimated release in November
17 of this year. The Legislature appropriated and the
18 Governor approved \$5 million specifically for community
19 engagement as it relates to CalSMP. The grants will be
20 used to develop communication pathways and protocols
21 between CARB, community-based organizations, or CBOs, and
22 community members, when methane plumes are found in their
23 area, with the overall goal to make methane satellite
24 observations accessible, understandable, and useful to
25 communities. It will also create resources that CBOs can

1 use to work with community members to learn about methane
2 and CalSMP.

3 [SLIDE CHANGE]

4 RD AIR POLLUTION SPECIALIST YANG: CARB's public
5 dashboard is currently under development. Once the
6 dashboard is available, CARB will be providing information
7 about plumes, sources, and events after 30 days through
8 this dashboard. It will also contain information about
9 the actions that were taken to address methane plume
10 detections.

11 On the dashboard, plumes will be able to be
12 filtered by the type of facility, action taken by
13 operators, and date of plume detection. There will also
14 be a map feature, where plumes can be searched for
15 geographically.

16 [SLIDE CHANGE]

17 RD AIR POLLUTION SPECIALIST YANG: The satellite
18 is not fixed over one area, and orbits around the earth
19 about 16 times per day. It passes over California once
20 per day most days of the week. The satellite observes at
21 the scale of individual sources, rather than statewide.
22 While orbiting, the satellite is tasked to scan
23 rectangular areas of about one to two thousand square
24 kilometers.

25 CARB staff identify areas of interest, or AOIs,

1 for observation with the satellite. These are areas with
2 high concentrations of methane-emitting sources and areas
3 that California Methane Survey identified as having
4 observable plumes. The map on the right shows our current
5 AOIs colored by industrial sector. These are areas with
6 high potential for methane detection, some of which may or
7 may not be regulated.

8 Our AOIs can be edited at any time and we expect
9 to increase coverage of the state when satellite capacity
10 increases in 2026 and beyond.

11 [SLIDE CHANGE]

12 RD AIR POLLUTION SPECIALIST YANG: This slide
13 shows an example of a leak being detected and fixed in the
14 oil and gas sector. On July 5th, a plume was observed in
15 an oil and gas field. After CARB received the plume data,
16 we performed quality control, determined the source and
17 the responsible operator and sent a notification of the
18 plume detection to the operator on July 8th.

19 The next day, the operator performed an
20 inspection. They determined that the cause of the leak
21 was an issue with a stuffing box, which is a component
22 used in wells to prevent leaks between sliding and
23 rotating parts. This leak was unintentional and
24 previously unknown. It was repaired that day. The next
25 day on the 10th, the operator responded with information

1 about the leak.

2 For oil and gas facilities, the example here is
3 typical. Most leaks identified by satellite are repaired
4 within a week. On August 2nd, a follow-up observation by
5 satellite took place and no plume in that area was
6 observed again. In just this one instance, the rapid
7 response initiated by satellite data prevented the release
8 of methane equivalent to the annual greenhouse gas output
9 of nearly 2,500 cars using a 20-year global warming
10 potential value.

11 [SLIDE CHANGE]

12 RD AIR POLLUTION SPECIALIST YANG: This slide
13 shows a similar process but for a landfill. On June 9th,
14 a plume was observed via satellite at this landfill. When
15 CARB received the plume data, we performed quality
16 control, determined the source and the operator, and sent
17 a notification of the plume detection to the operator on
18 June 12th. The next day, the landfill operator inspected
19 the area where the plume was found. They determined that
20 it was an unintentional leak caused by insufficient vacuum
21 at the intermediate cover in that area. The operator
22 addressed the cause of the problem. CARB received a
23 response from the operator about the leak on June 18th.
24 This example shows that mitigation can still be achieved
25 in some cases, even if the regulation does not explicitly

1 require an operator response.

2 [SLIDE CHANGE]

3 RD AIR POLLUTION SPECIALIST YANG: Between the
4 beginning of the project and the end of September, the
5 satellite made 69 scans in the state. This amounts to
6 more than 90,000 square kilometers of area scanned. The
7 estimated total methane emissions prevented from just the
8 oil and gas sector for just these first months of
9 operation are equivalent to the annual greenhouse gas
10 emissions from about 18,000 cars.

11 This amount is solely due to notifications and
12 repairs through the regulatory provisions related to
13 CalSMP. This number will continue to rise as more
14 observations take place and more plume notifications are
15 sent out. And as regulatory requirements to act on remote
16 sensing data are expanded to sectors beyond oil and gas.

17 [SLIDE CHANGE]

18 RD AIR POLLUTION SPECIALIST YANG: Protecting
19 communities has been and will continue to be a major
20 priority for CalSMP. Methane is a nontoxic gas and the
21 concentrations and conditions needed for it to pose a
22 safety risk are rare. Note that the vast majority of
23 plumes occur in unpopulated and remote places with no
24 exposure risk to communities. However, in the rare event
25 that a plume is close in proximity to nearby residents, it

1 will be treated as a high priority emission plume, or
2 HPEP. HPEPs are very rare, but if one occurs, CARB is
3 committed to working with State and local authorities to
4 take strong, proactive, and immediate action to halt the
5 emissions and protect nearby communities.

6 Other pollutants may be emitted alongside
7 methane, but cannot be directly measured by the satellite.
8 Even though they cannot be measured by the satellite,
9 stopping methane leaks also stops the emissions of these
10 pollutants.

11 [SLIDE CHANGE]

12 RD AIR POLLUTION SPECIALIST YANG: There has been
13 only one HPEP detected since the launch of the project.
14 While this detection was made through aircraft flights,
15 the process outlined would be the same for a plume
16 detected via satellite. On Monday, September 15th, a
17 plume was detected in Bakersfield near a residential area
18 through aircraft flights conducted by NASA's Jet
19 Propulsion Laboratory.

20 An image of the plume is shown in the top left
21 picture and the bottom picture shows the street view of
22 where the plume was located. On Wednesday, September
23 17th, CARB received the plume information. Due to the
24 size of the plume, and its proximity to residents, CARB
25 determined that the plume was an HPEP. CARB coordinated

1 with State and local entities to take immediate action to
2 address the HPEP. Soon after, Cal OES posted a spill
3 report about the HPEP to their online database shown in
4 the top right image. And within a few hours, inspectors
5 from both the San Joaquin Valley Air Pollution Control
6 District and the California Geologic Energy Management
7 Division, or CalGEM, were on-site for an inspection. As a
8 result of the inspection, three leaks were found and
9 quickly repaired thanks to the immediate interagency
10 coordination and action.

11 Additionally, a local environmental justice
12 group, the Central California Environmental Justice
13 Network saw the posted spill report and distributed a
14 flier to the nearby community to warn them of the leaks.

15 [SLIDE CHANGE]

16 RD AIR POLLUTION SPECIALIST YANG: CalSMP is a
17 demonstration of California's global leadership in both
18 using new technologies and implementing new types of
19 observations into our regulatory framework. As we
20 continue to develop this project, we will continue to
21 share our experience with other jurisdictions who are
22 interested in using remote sensing to reduce methane
23 emissions. We are striving to build trust and
24 accountability through data transparency.

25 California is also a founding member of

1 Subnational Methane Action Coalition or SMAC, and the
2 United States Climate Alliance, and we'll continue to
3 leverage these memberships to broaden the scope of this
4 effort beyond our own borders.

5 CARB staff have shared data and information on
6 CalSMP to these organizations as part of California's
7 memberships. Moreover, CARB staff have presented on
8 CalSMP to several national and international
9 organizations. CARB staff have also been sharing
10 information and coordinating with other jurisdictions
11 outside of California, including other states, as well as
12 federal organizations.

13 [SLIDE CHANGE]

14 RD AIR POLLUTION SPECIALIST YANG: While the
15 satellite data that are being acquired now have already
16 been crucial to fulfilling the goals of CalSMP, there are
17 plans for even more data in the future. At present,
18 CalSMP relies on data from one satellite in orbit. In
19 2026 and beyond, additional satellites will be launched,
20 which will increase our observational capacity. Along
21 with methane, the satellite technology that CalSMP
22 utilizes is also capable of providing other non-methane
23 data products. These data products can provide insights
24 into climate impacts and land use changes. And there are
25 plans to acquire these products next year.

1 Finally, there are plans for potentially
2 purchasing small quantities of methane plume data outside
3 of the state of California. This would allow us to assist
4 partner agencies outside of the state and serve a global
5 mission as climate change is a global problem that needs
6 to be addressed.

7 [SLIDE CHANGE]

8 RD AIR POLLUTION SPECIALIST YANG: As we near the
9 end of this presentation, it is a good opportunity for us
10 to reflect on how far we've come. In 2018, then Governor
11 Jerry Brown who was frustrated at the federal dismantling
12 of climate science programs declared that California
13 would, "Launch its own damn satellite," at the Global
14 Climate Action Summit.

15 Eight years later, under the continued visionary
16 leadership Of Governor Gavin Newsom and the Legislature,
17 the State did just that. That satellite named Tanager-1
18 provide the observations we use for CalSMP.

19 Thanks to the forward-thinking leadership within
20 the State of California, we have a burgeoning satellite
21 project that is providing valuable data and supporting
22 greenhouse gas reductions in California, protecting our
23 communities and raising awareness of methane emitters
24 worldwide.

25 [SLIDE CHANGE]

1 RD AIR POLLUTION SPECIALIST YANG: To close the
2 presentation, we highlight California's continued
3 leadership on climate issues by showing how science and
4 research can drive real world solutions. CalSMP is a
5 prime example of California's leadership in this regard.

6 CalSMP is a first-of-its-kind effort connecting
7 observations using groundbreaking satellite technology to
8 partnerships within and beyond California. Oil and gas
9 regulatory amendments requiring action in response to
10 methane plume detections have led to greenhouse gas
11 reductions with similar proposals in other sectors.

12 Greenhouse gas emissions avoided so far are
13 equivalent to removing tens of thousands of passenger cars
14 off the road annually. Transparency is a major goal of
15 our project and we are engaging with communities to ensure
16 the data are useful and will be sharing data on our public
17 dashboard. We will expand satellite data capacity while
18 continuing to work toward achieving our climate goals and
19 protecting California's communities.

20 Mr. Riley Duren will now provide a presentation
21 covering the plume imaging technology in more detail and
22 the global vision for the data. Riley is the Chief
23 Executive Officer of Carbon Mapper the vendor of the
24 satellite data for CalSMP.

25 Riley.

1 (Slide presentation).

2 RILEY DUREN: Thanks Emily. And good afternoon
3 awe, everyone. I'm -- as you said I'm the founder and CEO
4 of the nonprofit Carbon Mapper. And I'd like to thank
5 Chair Sanchez and our colleagues at the ARB for the
6 opportunity to participate. It's a great pleasure to
7 summarize, as Emily said, a long-standing collaboration
8 with the started with joint research projects with NASA
9 over a decade ago that have since blossomed into an
10 operational program for translating data into action, not
11 just here in California, but globally.

12 And I -- to put this in perspective, I've spent
13 my career mostly working in the federal space in
14 developing earth observations for decision support. And
15 it's very rare to cross the so-called valley of death
16 between research and operations in a decade. And so I
17 give a lot of credit to my colleagues here in Sacramento
18 and other parts of the state. I think it's a true
19 California success story that we have matched the urgency
20 of the moment with methane action with developing the
21 capability to take that action.

22 [SLIDE CHANGE]

23 RILEY DUREN: So as we mentioned after a long
24 career at NASA, with some help of leading philanthropists,
25 I founded Carbon Mapper five years ago this month in

1 Pasadena. And our mission is to make methane and CO2
2 emissions data visible, and therefore actionable. And we
3 do this by combining advanced remote sensing technology
4 with open source data, tools, and expert translation in
5 support of a very broad range of stakeholders around the
6 world and I'll tell you more about that.

7 [SLIDE CHANGE]

8 RILEY DUREN: Specifically, we use a technology
9 that was developed at NASA over the last three decades
10 called imaging spectroscopy. The way to think about it is
11 if a camera has three colors, red, green, blue, like the
12 human eye, our cameras have over 400 colors. And those
13 colors extend into infrared wavelengths, which is where
14 greenhouse gases trap heat. And because we can image it
15 at high resolution, we can pinpoint where those emissions
16 are coming from to within a few meters, and we can do this
17 over large regions around the world. And this is the true
18 breakthrough in being able to pinpoint the locations and
19 understand where the emissions are coming from.

20 [SLIDE CHANGE]

21 RILEY DUREN: Before I go on, it's important to
22 recognize that there are two primary categories of methane
23 emissions in terms of how they manifest in atmosphere.
24 One category is a point source, that's the example on the
25 left, which you can imagine is like an invisible plume of

1 gas coming from a specific origin like a flare or a
2 leaking well, but the other main source is what we call a
3 diffuse area sources. And a good example here might be a
4 rice paddy or enteric fermentation from a large herd of
5 livestock.

6 And the point being, the emissions are
7 distributed over an area. And together those point source
8 and diffuse area sources make up the total emissions in a
9 region. It's important to look at both. And that really
10 requires an ecosystem of observing systems, including
11 different types of satellites, aircraft, and surface
12 measurements. And our focus at Carbon Mapper is on the
13 point sources for reasons that we've started to elaborate
14 on here today.

15 [SLIDE CHANGE]

16 RILEY DUREN: So drilling into this a little bit
17 further, as Emily mentioned, over 10 years ago, we began a
18 collaboration when I was still at NASA at JPL with the
19 State of California. And this is work that was co-funded
20 by the Air Resources Board, the Energy Commission and NASA
21 using advanced remote sensing aircraft from JPL. And over
22 the course of three years, we surveyed nearly every piece
23 of infrastructure in the energy, waste management, and ag
24 sectors in California to understand for the first time
25 comprehensively what was happening with methane emissions,

1 particularly these high-emission point sources. And the
2 big finding that came out of this study, in addition to
3 demonstrating technology, was that less than 0.2 percent
4 of the infrastructure we surveyed was responsible for over
5 a third of the state's entire methane budget. And so this
6 literally highlighted the fact that there's low-hanging
7 fruit in terms of methane mitigation, if you can
8 understand where these high emission sources are located.

9 [SLIDE CHANGE]

10 RILEY DUREN: And so, in the methane science
11 world, we refer to these as super emitters, meaning that
12 they emit disproportionately. And since the California
13 study, there have been multiple other studies in other
14 parts of the world that show similar trends, in some cases
15 20 to 60 percent of regional emissions come from these
16 so-called super emitters. This varies a lot from region
17 to region and sector to sector, but the trend holds.

18 And so the key point I want to make on this slide
19 is that efforts to mitigate methane super emitters are
20 different from conventional climate solutions, mainly
21 because so many of these super emitters we see are the
22 results of leaks and malfunctions. And if you can
23 pinpoint them and notify operators in a timely fashion,
24 you can get quick action.

25 And they can often be relatively cheap and easy

1 to repair. It's literally sometimes turning a wrench to
2 fix some of these things or fairly low-cost investments to
3 improve efficiencies and operations. And again, as Emily
4 pointed out, because of short -- the short lifetime of
5 methane in the atmosphere, reducing super emitters can get
6 us an immediate climate benefit, which we urgently need to
7 slow down warming while we get our arms around the other
8 pollutants, in particular CO2, but also cause of the very
9 local co-benefits of reducing hazardous co-pollutants like
10 benzene.

11 To be clear, methane itself is an inert gas, but
12 it is often co-emitted with other hazardous air pollutants
13 that we would like to get rid of. And this is a good
14 tracer for finding those potentially hazardous
15 co-pollutants.

16 [SLIDE CHANGE]

17 RILEY DUREN: So our theory of change. How do
18 you scale what we've started with these research projects
19 in California to get at mitigation at scale globally? You
20 need to do four things? Number one is we need a complete
21 picture of methane emissions. And that means we need the
22 ability to see most of the super emitters on the planet,
23 which means more area coverage, more frequent sampling and
24 lower detection limits, thence the need to deploy next
25 generation of satellites.

1 Number two is the data needs to be publicly
2 available, and accessible, and available within the
3 interest of horizon of people who can act on it. And so
4 that is a data policy choice and a data portal choice.

5 Number three is we need action. We need
6 basically stakeholders to be responsive. And that
7 requires two things, one are incentives for them to care
8 about the data to begin with and number two is the
9 technical capacity to act on it. And so this is a
10 combination of supporting decisions -- decision support,
11 regulatory rulemaking, training, and technical capacity
12 building in many jurisdictions across the U.S. and
13 globally. And finally, the program needs to be durable.
14 It's not helpful if we just do this for a year or two as
15 another research project. This need to continue for a
16 decade.

17 And so all four of these things contribute to
18 your theory of change and we believe that this is possible
19 with this system to mitigate a billion metric tons of CO2
20 equivalent air with methane globally.

21 [SLIDE CHANGE]

22 RILEY DUREN: So to do this, we worked to
23 establish a unique partnership to build what's called the
24 Tanager Constellation of satellites. And this includes
25 three key partners on the technology side. It includes

1 NASA JPL who created the innovative remote sensing
2 technology, our commercial Planet Labs with their agile
3 aerospace. They operate the largest constellation of
4 earth observing satellites today, and then Carbon Mapper
5 science and impact expertise. And as much as anything,
6 putting this team together was an exercise in addressing
7 institutional gaps, not just technical gaps to make all
8 this happen.

9 Next slide, please.

10 [SLIDE CHANGE]

11 RILEY DUREN: So the coalition launched Tanager 1
12 in August of last year. We've had a little over 12 months
13 of operation. And I have to say the satellite's
14 performing beautifully. And you can, don't take my word
15 for it, go look at the public data portal. But as I
16 speak, Planet is busy assembling Tanager-2, -3, and -4
17 for launch. And so we are actively working to build out
18 the constellation. And among other things, that will
19 allow us to monitor more areas more frequently over time.

20 Next slide.

21 [SLIDE CHANGE]

22 RILEY DUREN: A key part of this is trust, right?
23 It's one thing to make the data public. It's another
24 thing to convince people that it's accurate. And so, we
25 have a robust program to do that, that includes the use of

1 independent measurements to check what the satellites are
2 telling us. So on the left is one example where we work
3 with independent teams, released controlled amounts,
4 metered amounts of methane at a controlled release site,
5 in this case, in Arizona. And they don't tell us what the
6 emission rates are and then we fly over it with a
7 satellite. We quantify it and then we compare the
8 unblinded, and we can see how well things line up. And
9 you see here it's about a one-to-one slope. There's no
10 bias in the data and the precision is pretty good
11 considering we're doing this from 430 kilometers above the
12 earth.

13 The other thing we can do is fly independent
14 aircraft underneath the satellite within the same second
15 or so. And this is an example with the NASA JPL aircraft
16 flying underneath the satellite showing that we're getting
17 consistent results. And all of these methods and the
18 data, the methane data, are public. Again.
19 Important(inaudible).

20 [SLIDE CHANGE]

21 RILEY DUREN: So to make the data accessible and
22 available, we created a public data portal, which has over
23 20,000 plumes to date from all of our previous airborne
24 surveys and other satellites, and over 6,000 to date from
25 the Tanager-1 satellite alone. So this map shows where

1 the satellites of image globally and counts. And you can
2 see some statistics about how those methane plumes split
3 between sectors, oil and gas, coal, waste, agriculture
4 globally.

5 We have a growing number of users spanning
6 government, private sector, NGOs, community groups, and
7 journalists. And again, all of this data is public. You
8 can sign up for alerts, daily, weekly, monthly. Did we
9 fly over it? If we did, did we find something? If so,
10 it's in your inbox. So again, towards trying to increase
11 the accessibility of this data, so we have the maximum
12 amount of eyes on it, and hopefully the maximum of action.

13 Next slide.

14 [SLIDE CHANGE]

15 RILEY DUREN: So I mentioned the importance of
16 granularity. And this is an example. This is a landfill
17 outside of Rio. And there's two things happening at this
18 landfill. You can see there's actually two distinct
19 emissions sources. At the top is gas control device, most
20 likely a malfunctioning flare. In the middle of the
21 landfill is actual active working face, the landfill
22 surface. And we can trend these over time. That's what
23 the plots show is we can see what's happening over time
24 with these two sources, even if they're not heading in the
25 same direction.

1 So that's at the facility level, we can provide
2 actionable information. And then the plots on the right
3 are from a publication we put out earlier this year, where
4 we surveyed landfills across a bunch of U.S. states. And
5 what these bars show you are different causes for the
6 emissions, whether it's coming from the work face, from
7 the gas control infrastructure, or something else. And
8 you can see it varies a lot from jurisdiction to
9 jurisdiction. And that is a function of, A, who's
10 operating the facilities, their financial and technical
11 capabilities, and/or the presence or absence of
12 regulations. And so this gives us a roadmap or helps this
13 informed decision-making and where to prioritize
14 investments at and regulatory action.

15 [SLIDE CHANGE]

16 RILEY DUREN: Another topic that is I think very
17 exciting is to recognize that 30 percent of global oil and
18 gas production happens offshore. And offshore means until
19 recently invisible, because the platforms are typically
20 difficult to get logistically, and if you're using remote
21 sensing, the ocean surface is very dark at infrared
22 wavelengths.

23 [SLIDE CHANGE]

24 RILEY DUREN: There's a struggle to actually get
25 a signal. But we've designed the Tanager satellite to

1 overcome these challenges and we're actively detecting
2 methane plumes from oil and gas platforms around the
3 world, off the coast of the Republic of Congo, and, on the
4 right, a drill ship off the coast of Brazil.

5 So I think this is going to be a
6 transformative -- hopefully transformative capability to
7 get a complete a picture of what's really happening with
8 oil and gas emissions globally so that people can help
9 mitigate them.

10 Next slide.

11 [SLIDE CHANGE]

12 RILEY DUREN: So as I mentioned, another key
13 element of our theory of change doesn't stop with just
14 making the data available. We also spend a lot of effort
15 in translating the data in action. So we have an impact
16 team that works on several fronts including direct
17 mitigation guidance, but also supporting policymaking. As
18 I mentioned training and capacity building in other
19 jurisdictions, and then working with other partners to
20 apply their own tools to the methane data we produce to
21 (inaudible) and drive action. So as you can see we have a
22 large number of partnerships around the world and I just
23 want to just again amplify the fact that there's enormous
24 synergy with I think CARB's relationships with other
25 jurisdiction partners in terms of your ability to do

1 capacity building and share tools with other
2 jurisdictions.

3 Next slide, please.

4 [SLIDE CHANGE]

5 RILEY DUREN: So these are just a few examples of
6 where third parties are taking the methane data that we
7 put on the Carbon Mapper public portal and in turn
8 creating their own analytics for specific sectors. So in
9 the waste sector, there's a UN program called LOW-Methane,
10 RMI operates a data port called WasteMAP, which is focused
11 on insights on the global waste management sector, both on
12 managed dumps as well as landfills. Our partners at RMI
13 have something called the Oil and Gas Climate Index, know
14 your gas, know the footprint of your gas and the intensity
15 of it using a combination of bottom-up measurements in
16 our. And then most exciting in the public health arena is
17 some work by PSE Healthy Energy based in Oakland. And
18 they have taken Carbon Mapper methane data and applied
19 their database of gas composition data in oil and gas
20 hydrocarbon basins around the U.S. to predict how much
21 benzene is occurring in front-line communities to predict
22 exposure levels both at the chronic and acute level,
23 because again the -- some of these hazardous co-pollutants
24 are important to understand from a health and safety
25 perspective.

1 I will say that as we do pilot programs with many
2 jurisdictions, we're finding that an equal motivator for
3 action beyond global climate change is local health and
4 safety, including workers, as well as communities.

5 [SLIDE CHANGE]

6 RILEY DUREN: And so here's a specific example,
7 just one example. Emily shared one. This is from Cali --
8 a couple from California. This is an example in the Texas
9 Permian Basin, that we detected right out of the gate with
10 Tanager-1 last fall. It turned out to be a leaking
11 gathering line over seven tons an hour. We notified both
12 State and federal regulators the next day. They notified
13 the operator who immediately diagnosed and fixed it. And
14 then we verified with follow-up observations and it went
15 away.

16 We've done this now about 300 times across
17 different jurisdictions in the US and roughly half the
18 time, the operators respond to us or the responsive
19 regulator indicating that these previously (inaudible) or
20 unexpected emissions. In many cases, they were leak
21 repairs that we could follow up.

22 So again, a lot of this is directly in line with
23 what CARB is doing with the CalSMP program here in the
24 state. It shows that this model can work elsewhere.

25 Next slide, please.

1 [SLIDE CHANGE]

2 RILEY DUREN: And then zooming out a bit and
3 looking at my last -- the last thing I mentioned about
4 responsivity is incentives. So beyond rulemaking and
5 enforcement around finding and fixing leaks, there are
6 Emerging policies, both in the EU with their methane
7 import standards around imported natural gas, but also
8 here in California with your risk disclosure -- climate
9 risk disclosure programs, about quantifying the intensity
10 of supply chains, right?

11 So on the left is an example of a pilot study,
12 that Carbon Mapper did with EDF and (inaudible), where we
13 basically calculated the emission intensity of the top 11
14 oil and gas producers in that part of the Permian. We
15 took the methane emissions divided it by the gas produced
16 to come up with a loss rate, compared that with the
17 reported loss rates. In some cases, they agreed
18 (inaudible) them. And this is going to be key going
19 forward to supporting climate disclosures, so people
20 understand (inaudible). Excited about this, because it is
21 yet another vector for action because of the market
22 incentives to methane footprints.

23 Next slide, please.

24 [SLIDE CHANGE]

25 RILEY DUREN: So, in closing, between

1 philanthropy and the State of California, there's been a
2 really powerful foundation laid for global methane action,
3 but more needs to be done, if we want to hit the kind of
4 ambition I'm talking about here. Again, we believe that
5 on the order of a billion metric tons of CO2 methane --
6 equivalent methane reductions a year are possible, which
7 is equivalent to taking a hundred million cars off the
8 road.

9 The trick here is finding partnership and people
10 around the world who will act on the data when we make it
11 available. And again, I think this is why California can
12 do so much more, including what it started to do with our
13 philanthropic partners to keep scaling and keep the
14 mitigation train rolling.

15 So with that, we're really excited to partner
16 with you and looking forward to any questions.

17 CHAIR SANCHEZ: Thank you so much Riley. We will
18 now hear from the public who signed up to speak on this
19 item. I will ask the Board clerks to begin calling the
20 public commenters.

21 BOARD CLERK MOORE: Thank you. There are no
22 commenters that have signed up to testify for this item.
23 I'll turn the microphone back to Chair Sanchez. But just
24 a quick note for Riley if you could move the mic closer to
25 your mouth for comment for the court reporter. Thank you.

1 CHAIR SANCHEZ: Thank you. Board members, any
2 questions?

3 Please, Councilmember.

4 BOARD MEMBER GUERRA: Yeah. One -- just once
5 comment. One, I think this is exciting work and, you
6 know, one that obviously focuses on how we can use
7 technology to be more effective and more efficient, and
8 being able to respond quicker. I just -- and I mentioned
9 this to Dr. Cliff, that in our communication with our
10 local air districts so that we can respond, as well -- and
11 some of these sources may have additional toxins that
12 are -- that release -- that are released with methane, but
13 that -- I think one of the end of the slides from the
14 staff presentation also referred to it as data that is
15 useful in its sharing with the public. And so sometimes I
16 want to make sure that we're not causing a needed alarm as
17 well, but we do that at the local level with our air
18 district partners who are engaging with the public
19 regularly, so...

20 I know we discussed a little bit about how we're
21 doing that and I'd like to just make sure that we're
22 increasing that level of communication with our air
23 district partners.

24 Thank you, Madam Chair.

25 EXECUTIVE OFFICER CLIFF: Yeah. Thank you,

1 Councilmember. We certainly are working closely with our
2 partners at the local level. And, in fact, we -- if there
3 are evidence of plumes in their region and it's something
4 over which they have some regulatory authority or control,
5 we alert them as quickly as we can. We, you know, of
6 course have to go through a process of doing QA on the
7 data and ensuring that, you know, we understand what that
8 information is.

9 It's rare that those situations will result in
10 boots on the ground. So you saw in the case of a high
11 priority, the so-called HPEP that that would result in
12 actually having to, you know, scramble folks to an area
13 because there's risk to acting humans. But in the --
14 that's a relatively rare case. And so if that's not the
15 case, we alert them, give them a chance to kind of
16 understand what it is. We alert the operators as well.
17 And then ideally, the leak gets fixed.

18 It's important to note that Carbon Mapper is
19 putting out these data after 30 days publicly. So, folks
20 will have an opportunity to review that. That's good
21 accountability and it ensures that there's sunshine on,
22 you know, operators of facilities. So it's incumbent upon
23 the regulators to ensure that we are addressing leaks when
24 we see them. And that's where I think this relationship
25 with the air districts really helps.

1 CHAIR SANCHEZ: Great. Thank you.

2 Dr. Shaheen.

3 BOARD MEMBER SHAHEEN: Thank you, Chair. And
4 really enjoyed both presentations very much. We were just
5 taking a look at this map that was in Emily's
6 presentation. I don't know what slide number that is,
7 Emily. But that, you know, a lot of the emphasis has been
8 on oil and gas leakage, along with landfills. And so we
9 were really curious about on the map, we did see that
10 dairies were indicated and we were curious about the
11 technology. I think we have the point source versus the
12 diffuse source. And we were curious, like, do you need
13 different technologies to -- okay, if you could address
14 that, that would be wonderful

15 RILEY DUREN: Yeah, I'm happy to speak to that.
16 So ag is challenging. It's -- you know, agricultural
17 systems are -- I would say, there's a broad population of
18 farm types, ranging from small -- very small farms to very
19 large farms. It depends on, you know, how many head of
20 cattle. But specifically to livestock emissions in the
21 San Joaquin Valley. There are two main sources of methane
22 from dairies. One is enteric fermentation from the
23 animals themselves. That is an enteric -- that is a diffuse
24 are source that I mentioned in my early slides.

25 And then the other source is manure management.

1 And emissions from manure management vary significantly.
2 At facilities that do dry scrape, we see the emissions
3 dominated by ammonia rather than methane. If it's wet
4 manure management, lagoons, it's more methane. And in
5 those cases, we do see strong point sources. And while
6 that hasn't been a big focus yet with CalSMP, the Carbon
7 Mapper team has been collecting data over the San Joaquin
8 Valley for about 10 years. And so we have a pretty rich
9 characterization of point source components of that
10 emission, again from wet manure management locations.

11 And California has a lot of those facilities and
12 so we have a lot of data over California. We're beginning
13 to build up a picture of this and other jurisdictions like
14 Colorado, Oregon, New York, North Carolina. But to be
15 clear, the technology that we're talking about today is
16 strictly limited to these high emission point sources. So
17 we're seeing part of the manure emission sector, not all
18 of it. And we're not -- we're not seeing any of the
19 enteric fermentation with this technology. You need to
20 bring other methods to bear.

21 And, you know, my personal opinion is today, the
22 best technology for looking at enteric fermentation is
23 on-farm studies with in situ analyzers. However, we and
24 our partners are working on next generation technology to
25 be able to get a more complete picture of farm scale

1 emissions with remote sensing. It's still a couple years
2 away.

3 BOARD MEMBER SHAHEEN: Thank you so much for
4 sharing that. And I think in the spirit of data
5 collection, right, I was kind of curious, based on this
6 point source technology, right, which sounds like it's
7 extremely accurate. Do you know what the rate of false
8 positives might be from it?

9 RILEY DUREN: In general or specific to the ag
10 sector?

11 BOARD MEMBER SHAHEEN: Not -- no, more to your
12 oil and gas, your landfill sector where you've been doing
13 a lot the data collection.

14 RILEY DUREN: Right. Yeah, so that's an
15 excellent question when we talk about detection limits for
16 the technology question. We have moved away from what I
17 would call a minimum detection limit, because that tends
18 to be a low probability thing. And so the
19 state-of-the-art now in the remote sensing world for
20 methane sensing is a 90 percent probability of detection.
21 So this is based on a lot of empirical testing that says
22 when we detect something, we're 90 percent confident that
23 it's real. And so for the satellites that we're talking
24 about, they're designed to have a 90 percent probability
25 of detection of a hundred kilograms an hour.

1 That said, we still do have false positives. And
2 a big part of what we talked about with the methane data
3 pipeline, so to speak, is humans doing quality control on
4 the data. So even if our algorithms say there's methane
5 there, and then it says it looks like there's a plume, we
6 still have two or three layers of people at Carbon Mapper
7 followed by people at CARB who look at the data and go is
8 it real before we publish it.

9 BOARD MEMBER SHAHEEN: Yeah. You can apply
10 different types of statistical methods to look at that. I
11 bet you're doing some of that. We use a Fourier method
12 that I've done on sensing.

13 So, just one last quick question. I was curious
14 about after the hundred million dollar investment, how is
15 this funded operationally after that? Is it through the
16 philanthropic -- or philanthropy?

17 RILEY DUREN: Yeah, to be clear, Carbon Mapper
18 was established with a philan -- purely philanthropic
19 funding. We have ongoing grants that are being renewed
20 that keep Carbon Mapper the nonprofit going. It includes
21 funding we send to Planet to make the data public and
22 available. Additionally, and this is part of the
23 partnership with Planet - it's public-private
24 partnership - is that the ongoing buildout and maintenance
25 and operations of the satellites themselves is provided by

1 Planet. And so there is a commercial revenue, part of
2 this, that includes that extends beyond methane. Emily
3 alluded to other remote sensing products that come from a
4 hyperspectral imaging.

5 I mentioned that this technology has 400 channels
6 of information rather than three that we have with our
7 eyes. And there's literally an Earth science application
8 for every one of those channels. And so, the idea behind
9 this program -- and it speaks back to what I said earlier
10 on about theory of change about durability, is that we're
11 not counting solely on philanthropy to keep this program
12 going. It really was intended to seed a public-private
13 partnership, where the commercial partner can help keep
14 the satellites going for a long period of time.

15 BOARD MEMBER SHAHEEN: Thank you for that. I
16 just think this is amazing to see this level of innovation
17 and seeing California at the forefront. So thank you.
18 Thank you all for everything you're doing, and definitely
19 what to keep this funded.

20 Thank you.

21 CHAIR SANCHEZ: Thank you, Dr. Shaheen.

22 Board Member Rechtschaffen.

23 BOARD MEMBER RECHTSCHAFFEN: I don't have -- I --
24 my question was answered in part by the colloquy with
25 Board Member Guerra. I just -- I guess since I have the

1 mic, I can't resist saying that I was at that American
2 Geophysical Union meeting where Governor Brown said,
3 "We'll launch our own damn satellite." And it's
4 incredible exciting to see how that's progressed into such
5 a fantastic project.

6 CHAIR SANCHEZ: Thank you.

7 Yes, Ms. Takvorian.

8 BOARD MEMBER TAKVORIAN: I wasn't there, but Dr.
9 Shaheen covered a couple of the questions I had. I guess
10 one of the questions I have - and I really appreciate the
11 presentation. It's very exciting - is given the efficacy
12 or the accuracy of the -- of the -- this kind of a system,
13 how do you imagine - I guess this is to CARB staff - using
14 it in an enforcement -- a policy enforcement world?

15 EXECUTIVE OFFICER CLIFF: Well, largely speaking,
16 we -- so it depends on the regulation. So in the case of
17 the oil and gas regulation that the Board heard recently,
18 that would essentially allow us to identify -- if we
19 identify a leak, then it requires the operator to go do
20 further investigation. So in and of itself, it's not part
21 of an enforcement action. But, if, for example, the
22 operator didn't follow up, then there could be enforcement
23 action related with that. So far, we've actually seen
24 really great success as you saw from the slides that staff
25 presented.

1 Similarly, that would be applied in the Landfill
2 Methane Regulation, if the Board were to approve that in
3 November when we present that to the Board.

4 BOARD MEMBER TAKVORIAN: Okay. That's really
5 helpful. And then my other question is when you said that
6 it was being used for health and safety protection, I
7 wondered if it's utilizing methane as the pollutant that's
8 being detected and then investigating further for
9 co-pollutants, is that then -- yeah, well, does it go
10 beyond benzene or is that the other pollutant that you're
11 looking at?

12 RILEY DUREN: I can -- I can speak to Carbon
13 Mapper's protocols, but I'll defer to CARB on their HPEP
14 specific one. But remember, that there are two potential
15 harmful aspects of methane. In high enough
16 concentrations, methane alone can either be an asphyxiant
17 or above 50,000 parts per million, it can be explosive.
18 And so -- and then there's the question of, well, what
19 else is there in terms of potential, harmful
20 co-pollutants? Our own protocol that we have used outside
21 the U.S. as recently as a few weeks ago in Chile is that
22 if it -- if the plume is visible from space, and it's with
23 within a certain distance of a sensitive receptor, meaning
24 where people live, or even where workers are located, we
25 are on the side of flagging it immediately. We don't wait

1 30 days. We will flag with whoever we think might know
2 something about it, whether it's a gas utility, or an oil
3 and gas company, or a regulator. And in -- because we
4 would err -- we would rather err on the side of caution,
5 because we don't know what's in it and we don't know what
6 the actual concentrations are on the ground.

7 So that's a general protocol that we use. I'm
8 glad to say it's fairly rare. It's less than like two
9 percent of what we detect globally. But again, I defer to
10 CARB on their specific protocols on the HPEP designation.

11 RD AIR RESOURCES SUPERVISOR II HERNER: Yeah. So
12 our goal whenever we find an HPEP or a plume that is near
13 a community is to address it as fast as possible,
14 typically within 24 hours. There are going to be a number
15 of different co-pollutants. As you say, there are some
16 studies that try to quantify that. But every oil and gas
17 field is different, every landfill is different, so you
18 really don't know.

19 So our goal is to address it within 24 hours.
20 And we have the example of (inaudible). If we were ever
21 going to encounter an HPEP where the emissions continued,
22 we could go out and do some additional monitoring
23 (inaudible) on what are the co-pollutants.

24 But as mentioned, the HPEPs are extremely rare.
25 We expect to see maybe one or two a year at this time. We

1 like to be able to address them within 24 hours, which is
2 faster than you can possibly go out, grab a sample, and
3 take it back.

4 CHAIR SANCHEZ: Great. Seeing no other comments,
5 we will now move to open comment for those who wish to
6 provide a comment regarding an item of interest within
7 jurisdiction of the Board that is not on today's agenda.

8 The clerk will call on those who have submitted a
9 request to speak card. And if you are joining us remotely
10 and wish to comment, please click the "Raise Hand" or dial
11 star nine now. Will the Board clerk please call on those
12 who have raised their hand or signed to speak up, if any.

13 BOARD CLERK FRENCH: Thank you, Chair. We
14 currently have three in-person commenters who have turned
15 in a request-to-speak card and wish to speak at this time
16 for open comment. The first speaker is Kimberly Burr.

17 Kimberly Burr.

18 We will move on to the next speaker. Maria Ruiz.

19 The third speaker we have is Evan Edgar.

20 EVAN EDGAR: Good afternoon, Board members. Evan
21 Edgar, Edgar Associates on behalf of the California
22 Compost Coalition. I represent heavy-duty refuse fleet
23 operators both public and private. Where SB 1383
24 biomethane developers. As you know, for the landfills
25 that are super emitters, we're diverting organics from the

1 landfill and making our own biomethane for our own fleets.

2 The -- we've been getting off diesel 25 years
3 ago. We're not the dirty diesel done dirt cheap guys. We
4 are the guys who are RNG today, that's carbon negative
5 today, with near-zero NOx fleet today and it's affordable.

6 Doing 1383 is not cheap, but the City of LA just
7 had their rate increased 20, 30 bucks a household per
8 month to do 1383, and we can do that. So we're getting
9 off diesel. We're getting off landfills. We're doing all
10 the right things.

11 When the Advanced Clean Fleet Rule was adopted
12 three and a half years ago, there was supposed to be a
13 workshop on the future of biomethane. Every quarter I get
14 up here for something like my 15th time asking where is
15 this workshop, because the future of biomethane is
16 important for transportation fuel. Last month, we had the
17 public sector pack this room asking for that same
18 workshop, the sewer districts, CASA, who takes waste that
19 is slurried from the curb and puts into co-digest and we
20 have biomethane.

21 The landfills that are going to be better
22 efficient with their biomethane, we're not on PUC
23 pipelines. We are removed from a pipeline. CARB staff
24 thinks we should put it in a pipeline to
25 hard-to-decarbonize communities. We are making biomethane

1 for our own fleets and we're being penalized, because we
2 want to keep it on our own fleet, which is cost effective
3 and affordable. Instead of pivoting to a dirty, global,
4 BEV economy that digs up rare minerals, you're asking us
5 to double our rate, increase our carbon in order to go
6 battery electric. We don't want to do that.

7 This workshop three and half years should explain
8 that. I've been asking for it time and time again. Last
9 month was pretty embarrassing that CARB members tried to
10 get on a workshop and legal counsel slapped them down for
11 a Brown Act to only have two people in the room at the
12 same time.

13 We just want the workshop. Please have the
14 workshop. The future of biomethane is critical. We don't
15 to double our rates in order to have battery electric for
16 the City of LA or Long Beach, because it's going to double
17 the rate to not make it affordable.

18 Let's have the workshop.

19 BOARD CLERK MOORE: Thank you.

20 That concludes our in-person commenter. Then, we
21 have three commenters with their hands raised in Zoom,
22 Todd Campbell, Byanka Santoyo, and Gus Aguirre.

23 We'll start with Todd Campbell. I have activated
24 your microphone. Please unmute and you may begin.

25 TODD CAMPBELL: Hi. Can you hear me?

1 BOARD CLERK MOORE: Yes.

2 TODD CAMPBELL: Great. This will be real quick.
3 I just wanted to congratulate you, Chair Sanchez on your
4 appointment. And I thought it was an excellent first
5 meeting. Looking forward to working with all of you, but
6 congratulations.

7 BOARD CLERK MOORE: Thank you. Our next
8 commenter is Byanka Santoyo. I have activated your
9 microphone. Please unmute and you may begin.

10 CESAR AGUIRRE: Hi. Byanka actually shared this
11 link with me. So that's probably why her name is on
12 there. Hello my name is Cesar Aguirre. I'm the Director
13 of the Air and Climate Justice team with the Central
14 California Environmental Justice Network.

15 I wanted to come back to the methane satellite
16 project and also express some support for it. Recently,
17 CCEJN did some on-the-ground canvassing after we noticed
18 CARB had submitted a OES report stating that there was a
19 super emitter event and this was something that was on OES
20 very rapidly. It was a reported I believe on the 15th of
21 September. By the 19th of September follow-up inspection
22 were already being made for the repairs and NOVs were
23 already issued, something that would not have been
24 possible otherwise, and on top of Carbon Mapper's ability
25 to be where we can at the times where we cannot.

1 There is also examples of other projects, for
2 example, the Central California Asthma Collaborative had a
3 project called the SUMMATION Project underwhich there was
4 flyovers with planes. And the intention of ending the
5 project with towers inside of densely populated oil fields
6 in order to catch these plumes with the need around the
7 world and captures methane emissions from different parts
8 of the world. So when that satellite is not here, we do
9 have opinions that are a more directed and point you in
10 places like installing towers inside of the densely
11 populated oil fields to catch these plumes.

12 There is also studies, for example, the study
13 with PSE Health Energy, which looked at these plumes and
14 tried to calculate using historical data from different
15 releases, the different co-pollutants and how it could
16 affect health with their methane risk map. So I think
17 this is definite something that's going to increase
18 California's capacity to react and also provide
19 interagency collaboration, because the OES alerts the
20 CUPA, CARB, CalGEM and many others that could help with
21 the implementation of enforcement.

22 Thank you very much.

23 BOARD CLERK MOORE: Thank you.

24 Our next commenter is Gus Aguirre. I have
25 activated your microphone. Please unmute and begin.

1 GUSTAVO AGUIRRE, JR.: Can you guys hear me?

2 BOARD CLERK MOORE: Yes.

3 GUSTAVO AGUIRRE, JR.: Cool. Central California
4 Environmental Justice Network, Director of Climate Equity
5 and Environmental Justice.

6 I'm calling again referring to the satellite
7 methane project. I agree with -- well, first of all,
8 thank you so much for the information. And as previous
9 administrators of the SUMMATION Project, without being out
10 using -- looking for super methane emitters in the San
11 Joaquin Valley and also using data -- flyover data from
12 JPL and NASA.

13 You know, appreciate really like the ground
14 truthing that this satellite project is doing. One, it's
15 validating community concerns and front-line communities'
16 concerns, methane emissions and methane super polluters in
17 the San Joaquin Valley. And as you -- as this information
18 has shown, oil and gas operations, landfills, and some
19 agriculture practices are at the forefront of some of
20 these methane emissions. And so particularly in the west
21 side of the valley, we see large landfills, and just
22 calling to make sure that landfills are also taken, you
23 know, as purview, you know, importance such -- you know,
24 just like oil fields.

25 And touching -- you know, they saw on this going

1 back to the previous commenter on trust -- building trust,
2 I think there is a lot of decades and decades of
3 experience on the ground level in Kern County, Stanislaus
4 County, Fresno County, and in the entirety of the San
5 Joaquin Valley of organizations that have dedicated their
6 time and resources to doing citizen science research, to
7 doing public comments, to educating residents through
8 using different tools like Smoke School. So just, you
9 know, advocating of the importance of this project moving
10 forward. Thank you.

11 BOARD CLERK MOORE: Thank you. That concludes
12 public testimony for open comment. I will turn the
13 microphone back to Chair Sanchez.

14 CHAIR SANCHEZ: Thank you. With that, the
15 October 23rd, 2025 CARB Board meeting, my first as Chair,
16 is now adjourned. Thank you.

17 (Applause).

18 (Thereupon the California Air Resources Board
19 meeting adjourned at 4:18 p.m.)
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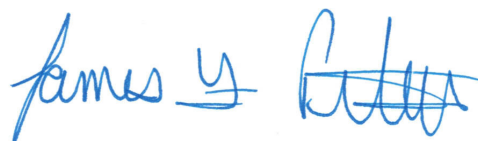
CERTIFICATE OF REPORTER

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 30th day of October, 2025.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063