

VIDEOCONFERENCE MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

ZOOM PLATFORM

THURSDAY, JULY 22, 2021

9:03 A.M.

JAMES F. PETERS, CSR
CERTIFIED SHORTHAND REPORTER
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APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

Sandra Berg, Vice Chair

John Balmes, MD

Hector De La Torre

John Eisenhut

Supervisor Nathan Fletcher

Senator Dean Florez

Davina Hurt

Gideon Kracov

Senator Connie Leyva

Tania Pacheco-Werner, PhD

Barbara Riordan

Diane Takvorian

STAFF:

Richard Corey, Executive Officer

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

Chanell Fletcher, Deputy Executive Officer, Environmental
Justice

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

Edna Murphy, Deputy Executive Officer, Internal Operations

APPEARANCES CONTINUED

STAFF:

Rajinder Sahota, Deputy Executive Officer, Climate Change and Research

Craig Segall, Deputy Executive Officer, Mobile Sources and Incentives

Ellen Peter, Chief Counsel

Adriane Chiu, Air Resources Engineer, On-Board Diagnostics Program Development Section, Emissions Certification and Compliance Division (ECCD)

John Ellis, Manager, Gasoline On-Board Diagnostics Section, ECCD

Frederico Garza, Staff Air Pollution Specialist, Gasoline On-Board Diagnostics Section, ECCD

Allen Lyons, Division Chief, ECCD

Thomas Montes, Manager, Diesel On-Board Diagnostics Section, ECCD

Randy Reck, Attorney Legal Office

Mike Regenfuss, Branch Chief, On-Board Diagnostics Branch, ECCD

Jason Wong, Manager, On-Board Diagnostics Program Development Section, ECCD

Yong Yu, Staff Air Pollution Specialist, On-Board Diagnostics Program Development Section, ECCD

ALSO PRESENT:

Meredith Alexander, CALSTART

Steven Douglas, Alliance for Automotive Innovation

Sean Edgar, Clean Fleets

Michael Geller, Manufacturers of Emission Controls Association

APPEARANCES CONTINUED

ALSO PRESENT:

Yvonne Martinez Watson, Sierra Club

Laura Rosenberger Haider

Tia Sutton, Truck and Emission Manufacturers Association

Robina Suwol, California Safe Schools

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PROCEEDINGS

1
2 CHAIR RANDOLPH: All right. Thank you. Good
3 morning. The July 22nd, 2021 public meeting of the
4 California Air Resources Board will come to order.

5 Board Clerk Estabrook, please call the roll.

6 BOARD CLERK ESTABROOK: Dr. Balmes?

7 BOARD MEMBER BALMES: Here.

8 BOARD CLERK ESTABROOK: Mr. De La Torre?

9 Mr. Eisenhut?

10 BOARD MEMBER EISENHUT: Here.

11 BOARD CLERK ESTABROOK: Supervisor Fletcher?

12 Supervisor Fletcher?

13 BOARD MEMBER FLETCHER: Fletcher here. I'm here.

14 Thank you.

15 BOARD CLERK ESTABROOK: Senator Florez?

16 BOARD MEMBER FLOREZ: I'm not in as nice a place
17 of where Nathan looks like he's at right now, but I'm here
18 in the workout room.

19 (Laughter.)

20 BOARD CLERK ESTABROOK: Assemblymember Garcia?

21 Ms. Hurt?

22 BOARD MEMBER HURT: Present.

23 BOARD CLERK ESTABROOK: Mr. Kracov?

24 BOARD MEMBER KRACOV: Here.

25 BOARD CLERK ESTABROOK: Senator Leyva?

1 BOARD MEMBER LEYVA: (Hand raised.)

2 BOARD CLERK ESTABROOK: I didn't get an audio,
3 but I saw you raised your hand.

4 Dr. Pacheco Werner?

5 BOARD MEMBER PACHECO-WERNER: Here.

6 BOARD CLERK ESTABROOK: Mrs. Riordan?

7 BOARD MEMBER RIORDAN: Here.

8 BOARD CLERK ESTABROOK: Supervisor Serna?

9 BOARD MEMBER SERNA: Here.

10 BOARD CLERK ESTABROOK: Professor Sperling?

11 Ms. Takvorian?

12 Vice Chair Berg?

13 VICE CHAIR BERG: Here.

14 BOARD CLERK ESTABROOK: Chair Randolph?

15 CHAIR RANDOLPH: Here.

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

18 CHAIR RANDOLPH: All right. Thank you. It's
19 good to be with everyone today. In accordance with
20 Executive Order N-08-21, we are conducting today's meeting
21 remotely with Zoom. We have organized the proceedings to
22 mirror our normal Board meeting as closely as possible,
23 but understandably there may be some differences. We
24 request your patience and understanding if any technical
25 problems arise.

1 Per Cal/OSHA's revisions to the COVID-19
2 Prevention Emergency Temporary Standards and the
3 Governor's Executive Order N-09-21, some of us are
4 participating from our headquarters in Sacramento. We
5 look forward to opening up the Board room to the public
6 soon, but for now we'll -- we are still operating through
7 Zoom for public comment.

8 I will now ask the Board Clerk to provide more
9 details on today's procedures.

10 BOARD CLERK ESTABROOK: Thank you, Chair
11 Randolph.

12 Good morning, everyone. My name is Katie
13 Estabrook and I am one of the Board clerks. I will
14 provide some information on how public participation will
15 be organized for today's meeting. If you wish to make a
16 verbal comment on one of the Board items or you want to
17 make a comment during the open comment period at the end
18 of today's meeting, you must be using the Zoom webinar or
19 calling in by telephone. If you are currently watching
20 the webcast on CAL-SPAN, but you wish to comment, please
21 register for the Zoom webinar or call in. Information for
22 both can be found on the public agenda.

23 To make a verbal comment, we will be using the
24 raise hand feature in Zoom. If you wish to speak on a
25 Board item, please virtually raise your hand as soon as

1 the item has begun and let us know you wish to speak. To
2 do this, if you are using a computer or tablet, there is a
3 raise hand button. If you are calling in on the
4 telephone, dial star nine to raise your hand. Even if you
5 previously registered and indicated which item you wish to
6 speak on, please raise your hand at the beginning of the
7 item if you wish to speak. If you don't raise your hand,
8 your chance to speak will be skipped.

9 If you are giving your verbal comment in Spanish,
10 please indicate so at the beginning of your testimony and
11 our translator will assist you. During your comment,
12 please pause after each sentence and allow the interpreter
13 to translate your comment to English.

14 When the comment period starts, the order of
15 commenters will be determined by who raises their hand
16 first. I will call on each commenter by name and then
17 activate each commenter when it is their turn to speak.
18 For those calling in, I will identify you by the last
19 three digits of your phone number.

20 We will not show a list of commenters. However,
21 I will be next -- announcing the next three or so
22 commenters in the queue, so you are ready to testify and
23 know who is coming up next. Please note that you will not
24 appear by video during your testimony.

25 I would love -- also like to remind everyone,

1 commenters, Board members, and CARB staff to please state
2 your name for the record before you speak. This is
3 important in the remote meeting setting. It is especially
4 important for those who are calling in to testify on an
5 item.

6 We will have a time limit for each commenter.
7 The normal time limit is three minutes, though this could
8 change at the Chair's discretion. During Board testimony,
9 you will see a timer on the screen. For those calling in
10 by phone, we will run the timer and let you know when you
11 have 30 seconds left and then when your time is up. If
12 you require Spanish translation, your time will be
13 doubled.

14 If you wish to submit written comments today,
15 please visit CARB's send-us-your-comments page or look at
16 the public agenda on our webpage for links to send these
17 documents electronically. Comments will be accepted on
18 each item until the Chair closes the record for that item.

19 If you would like to give -- I would like to a
20 friendly reminder to our Board members and CARB staff to
21 please be sure to mute yourself when you are not speaking
22 to avoid any background noise. Also when you do, please
23 speak from a quiet location.

24 If you experience any technical difficulties,
25 please call (805)772-2715 so an IT person can assist you.

1 And this number is located on the public agenda.

2 Thank you. I'll turn the mic back to Chair
3 Randolph now.

4 CHAIR RANDOLPH: Thank you. The first and only
5 item on today's agenda is Item number 21-6-1, proposed
6 revisions to the on-board diagnostic system requirements
7 and associated enforcement provisions for passenger cars,
8 light-duty trucks, medium-duty vehicles and engines, and
9 heavy-duty engines. If you wish to comment on this item,
10 please click the raise hand button or dial star nine now.
11 We will call on you when we get to the public comment
12 portion of this item.

13 Under the progressively cleaner, Low Emission
14 Vehicle I, II, and III programs, California light- and
15 medium-duty vehicles are required to meet very stringent
16 emission standards. The emission standards for heavy-duty
17 engines have also become significantly more stringent.
18 Our On-Board Diagnostics, or OBD, Program is important,
19 because it ensures that vehicles and engines meet these
20 standards in-use and remain clean for their entire life.

21 When emission problems are detected, drivers are
22 alerted by a warning light to seek service. Further,
23 repair technicians can use the system to access diagnostic
24 information to identify the nature of the problems and
25 verify that the problem has been correctly fixed. The

1 Board regularly receives updates on the progress of the
2 OBD regulations, including the one we will hear today.

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

4 EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

5 As the Board knows, staff is continually
6 evaluating manufacturer's progress in designing and
7 implementing OBD systems under CARB regulations. Since
8 the OBD requirements were last amended in 2018, staff has
9 identified several changes that are needed to improve the
10 effectiveness of the regulation as well as its
11 implementation. The modifications include changes related
12 to revised and enhanced data from the vehicles and changes
13 related to monitoring requirements for gasoline and diesel
14 vehicles. Additionally, the OBD enforcement provisions
15 would also be updated concurrently with some of the
16 revisions being proposed today.

17 With that, I'll now ask Yong Yu of the Emissions
18 Certification and Compliance Division to cover the first
19 portion of the staff presentation. Then Frederico Garza
20 of the Emissions Certification and Compliance Division
21 will cover the remainder of the presentation.

22 With that, Yong.

23 (Thereupon a slide presentation.)

24 BOARD CLERK ESTABROOK: Please hold. The
25 presenter should be starting soon. Yong, I believe you

1 should have access now. Sorry for the technical
2 difficulties there. You should have access to unmute
3 yourself and your PowerPoint is displayed currently.

4 ECCD STAFF AIR POLLUTION SPECIALIST YU: Okay.
5 Thank you, Katie. I'm sorry. That's the reason why I was
6 not in there. So let me turn on my video.

7 Yeah. Sorry for the technical difficulties.

8 Thank you, Mr. Corey and good morning, Chair
9 Randolph and the members of the Board. Today staff will
10 present a proposal to amend the on-board diagnostic, OBD,
11 regulations, which impact light-, medium-, and heavy-duty
12 vehicles and engines.

13 Next slide, please.

14 --o0o--

15 ECCD STAFF AIR POLLUTION SPECIALIST YU: Today,
16 the presentation will begin with a short introduction
17 about the OBD Program, then move to the proposed OBD
18 amendments, and the cost benefit of the proposed
19 rulemaking. Lastly, 15-day changes will be addressed
20 along with staff's recommendation.

21 Next slide, please.

22 --o0o--

23 ECCD STAFF AIR POLLUTION SPECIALIST YU: On this
24 slide and the next two, staff will introduce a short
25 background of the OBD Program. OBD requirements were

1 amended for California light- and medium-duty vehicles and
2 engines starting in the 1994 model year and are referred
3 to as OBD II. OBD II requirements were later expanded to
4 heavy-duty vehicles and engines starting in the 2010 model
5 year and are referred to as HD OBD.

6 Both the OBD II and HD OBD programs require
7 manufacturers to design a system in vehicle or engine's
8 on-board computer to monitor emission-related components
9 for malfunction throughout the actual life of the vehicle
10 or engine. In simple terms, the OBD system take the
11 information from sensors on vehicle while the vehicle is
12 being operated in-use. The OBD system use that
13 information to directly monitor the performance of the
14 emission control components or to infer that the
15 performance of the emission control components based on
16 the correlations that are established during the
17 engineering of the vehicles and engines. The monitors
18 evaluate the information against specific malfunction
19 criteria under specific conditions.

20 Major OBD monitors are designed to detect
21 malfunction of emission components that may significantly
22 impact the emissions. Those malfunctions are required to
23 be detected prior to emission exceeding specified limits.
24 The OBD program refers to these specific emission limits
25 on OBD emissions ratio.

1 Next slide, please.

2 --o0o--

3 ECCD STAFF AIR POLLUTION SPECIALIST YU: A key
4 feature of the OBD system is the malfunction indicator
5 light, MIL, as highlighted by the red box and arrow on
6 this picture of the vehicle instrument cluster. The MIL
7 notify the vehicle operate that our emission-related
8 components is malfunction. In addition to the MIL, the
9 OBD system also store an OBD fault code that further
10 identifies the malfunction component. Those features make
11 the OBD system essential inspection tool for California
12 Smog Check Program.

13 In the spring of the 2015, the Smog Check Program
14 transitioned to OBD-only testing for 2000 and newer model
15 year vehicles. Approximately, 8.9 million vehicles were
16 OBD-only test last year.

17 HD OBD is envisioned to play similar role in
18 California's future Heavy-Duty Inspection and Maintenance
19 Program. And OBD-based inspection and maintenance program
20 provides for a cost effective method to identify emission
21 malfunctions and cover important diagnostic information.
22 Furthermore, consumer also benefit from OBD Program should
23 a MIL arise in-use because the cost may be subject to
24 emission warranty repair.

25 Next slide, please.

1 --o0o--

2 ECCD STAFF AIR POLLUTION SPECIALIST YU: Updates
3 to the OBD Program occur regularly for various reasons.
4 This may be in response to continuously advanced in the
5 vehicle and engine technology or due to periodic reviews
6 of the current OBD II and HD OBD regulations.

7 The last comprehensive OBD update was
8 accomplished near three years ago. In light of these
9 reasons, the OBD II -- the OBD Program propose the
10 following amendments to address the need for more
11 diagnostic information from vehicles, to respond to
12 various concerns from industry, and lastly to resolve
13 issues discovered through the OBD certification
14 activities. This amendment will be further presented in
15 the next slides.

16 Now, I hand the presentation to my co-worker,
17 Fred.

18 Next slide, please.

19 --o0o--

20 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: Thank
21 you, Yong. The most notable amendments of the proposal
22 outlined here include the transition: the transition to a
23 new communication protocol, SAE J1979-2; modifications to
24 the requirements for the cold start emission reduction
25 strategy, also known as CSERS; clarifications to data

1 submission requirements for diesel monitors; and lastly,
2 changes to the diesel particulate matter, PM, filter
3 monitor.

4 Next slide, please.

5 --o0o--

6 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: The
7 first amendment proposes to introduce a new OBD
8 communication protocol. The protocol is basically the
9 language for the car and the test or inspection equipment
10 to talk to each other to download OBD data or to implement
11 OBD functions. Given the spectrum of emission control
12 solutions and powertrain technologies that have been
13 introduced over the years to meet CARB standards, industry
14 is quickly running out of available standardized OBD fault
15 codes using the current OBD protocol, namely J1979.

16 Industry has subsequently introduced a solution
17 in collaboration with CARB staff. SAE J1979-2 is a new
18 standardized communication protocol between the vehicle's
19 OBD system and test or inspection equipment.

20 Next slide, please.

21 --o0o--

22 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: The
23 proposed solution involves transitioning to a new OBD
24 communication protocol for OBD II and some HD OBD
25 applications that was developed in collaboration between

1 industry and CARB. This new protocol, referred to as SAE
2 J1979-2, will not only significantly increase the number
3 of available OBD fault codes, but also provide more useful
4 OBD data to various stakeholders, including vehicle
5 owners, vehicle and engine manufacturers, State Smog Check
6 programs, and other government agencies, including CARB.

7 For example, information pertaining to whether
8 OBD monitors have completed and how often monitoring
9 occurred in use will be expanded. Also, more information
10 relating to engine and vehicle operating conditions when
11 an emission-related malfunction is detected will be
12 provided.

13 The added data will allow for more comprehensive
14 Inspections while providing information to better
15 facilitate repairs and prepare vehicles for re-inspection.
16 The added data will also facilitate CARB's compliance
17 activities. This new communication protocol is required
18 in the 2027 model year with an option to implement early
19 beginning with the 2023 model year.

20 Next slide, please.

21 --o0o--

22 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: The
23 second proposed amendment involves cold start emission
24 reduction strategies, also called CSERS. Since most
25 emissions occur during the first minute of driving, when

1 the engine and catalyst are cold, manufacturers have
2 developed cold start emission reduction strategies to
3 accelerate catalyst warm up and reduce cold start
4 emissions.

5 The current regulation requires monitoring of the
6 CSERS and detection of CSERS malfunctions that impact
7 proper catalyst heating.

8 Next slide, please.

9 --o0o--

10 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: There
11 is a range of manufacturer-specific CSERS solutions for
12 emissions control and OBD monitoring across their
13 gasoline, diesel, and hybrid vehicles. Although the
14 current regulation requires detailed disclosures of
15 manufacturer's cold start emission reduction strategies
16 and associated OBD monitors, additional clarity is needed
17 to ensure consistent and equitable implementation.

18 Staff, therefore, proposes to revise the CSERS
19 monitoring requirements to include more details on which
20 components and strategies of the emission control system
21 need monitoring, along with conditions in corresponding
22 malfunction criteria. Staff also proposes to require new
23 data related to diesel vehicle CSERS activity to be
24 tracked and reported.

25 The proposal includes adequate lead time for

1 manufacturers to implement these new requirements with
2 implementation between the 2026 to 2028 model years and an
3 option to implement early with the 2023 model year.

4 Next slide, please.

5 --o0o--

6 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: The
7 next area of the proposal is the data submission
8 requirements for certification of some diesel monitors.
9 Diesel catalyts are key emission control components
10 subject to the OBD monitoring requirements. The OBD
11 system is required to detect malfunctions of the diesel
12 catalyts before emissions exceed specified thresholds.

13 On-board NOx sensors are critical to monitoring
14 diesel catalyts. The current regulation does not have
15 sufficiently clear direction on the data or information
16 required to be submitted for staff review or the
17 acceptable criteria for data supporting the performance of
18 the diesel catalyts and NOx sensor monitors.

19 To address these issues, the proposed amendments
20 will clarify the OBD monitoring requirements and establish
21 a standardized procedure for data submission starting with
22 2025 model year vehicles and engines. The amendments
23 specify the data, information, and timeline for
24 submission; they establish approval criteria for the
25 catalyst aging protocol; and they outline failure mode

1 demonstration requirements with a deteriorated NOx sensor.

2 Next slide, please.

3 --o0o--

4 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: This
5 is another change related to diesels. The diesel PM
6 filter is a key emission control component subject to the
7 OBD monitoring requirements. Some light- and medium-duty
8 manufacturers are having difficulty meeting the monitoring
9 frequency requirement using current PM sensor
10 technologies. Additionally, the existing OBD II emission
11 threshold is based on older PM standards and sensor
12 technologies designed around the older standards. The
13 existing threshold does not reflect developments in PM
14 standards, sensors, and monitoring technologies.

15 The proposed changes will provide for the
16 near-term adjustment of the OBD II monitoring frequency
17 requirement, while eventually improving the OBD II
18 emission threshold and adjusting the monitoring frequency
19 for the longer term. More details of these changes will
20 be provided on the following slide.

21 Next slide, please.

22 --o0o--

23 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: For
24 the 2022 to 2025 model year period, staff proposes to
25 adjust the monitoring frequency requirement to a

1 technically feasible level. This means malfunctions will
2 be detected and the MIL illuminated in about four weeks of
3 driving for most drivers instead of the currently required
4 two weeks of driving.

5 For the 2026 to 2028 model year period, staff
6 proposes to restore the requirements back to the current
7 monitoring frequency and OBD threshold for MIL
8 illumination. For the 2029 model year and beyond, staff
9 proposes to tighten the PM OBD emission threshold to a
10 level approximately 40 percent more stringent than the
11 current requirement, while adjusting the monitoring
12 frequency requirement, so that faults will be detected and
13 the MIL will light in about three weeks instead of the
14 current requirement of two weeks.

15 Next slide, please.

16 --o0o--

17 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: On
18 this slide and the next, staff will provide a summary of
19 the costs and benefits of this rulemaking. The cost
20 analysis was based on known costs, realistic assumptions,
21 and conservative estimations. Staff calculated the
22 incremental costs to the consumer at the time of purchase
23 on a per engine or per vehicle basis. A consumer is
24 anticipated to pay an extra \$0.67 when purchasing a
25 vehicle from a large light- or medium-duty vehicle

1 manufacturer and an extra \$7.37 when purchasing from a
2 small light- or medium-duty vehicle manufacturer. When
3 purchasing from a heavy-duty engine manufacturer, a
4 consumer is expected to pay an extra \$14.34 from a large
5 manufacturer and \$25.87 from a small manufacturer.

6 On the next slide, staff will present the cost
7 effectiveness of this rulemaking.

8 Next slide, please.

9 --o0o--

10 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: There
11 are no new emission reductions claimed for this proposed
12 rulemaking. However, these amendments will better ensure
13 previously claimed emission reductions are realized. For
14 the OBD II part of the rulemaking, the emission benefits
15 are embedded in those claimed by the LEV III program,
16 which when adjusted for the incremental cost of OBD II
17 amendments result in a revised cost effectiveness of \$4.91
18 per pound of NMOG plus NOx. Similarly, for the HD OBD
19 part of the rulemaking, using these revised costs and the
20 previously claimed emission benefits, staff estimated
21 \$0.21 per pound of NOx and \$29.51 to \$29.92 per pound of
22 PM.

23 Next slide, please.

24 --o0o--

25 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: The

1 Next slide, please.

2 --o0o--

3 ECCD STAFF AIR POLLUTION SPECIALIST GARZA: In
4 closing, staff recommends that the Board adopt the
5 proposed amendments with 15-day changes. This concludes
6 the staff presentation. Thank you for your attention.

7 CHAIR RANDOLPH: Thank you. We will now hear
8 from the public who raised their hand to speak on this
9 item. Will the Board Clerk please call the first few
10 commenters.

11 BOARD CLERK ESTABROOK: Thank you, Chair. We
12 currently have three commenters with their hands raised to
13 speak at this time. Just a reminder that if you wish to
14 verbally comment on this Board item to please raise your
15 hand in Zoom or dial star nine if you're on the phone.

16 And our first commenter is going to be Tia
17 Sutton. After Tia, we will have Michael Geller and Steven
18 Douglas.

19 Tia, I have activated your microphone. You can
20 unmute yourself and begin your comment.

21 TIA SUTTON: Great. Can you hear me?

22 BOARD CLERK ESTABROOK: Yes, we can.

23 TIA SUTTON: Okay. Hello. My name is Tia Sutton
24 and I'm here testifying on behalf of the Truck and Engine
25 Manufacturers Association. We have a long history of

1 working with CARB on the development and implementation of
2 these regulations. And we're committed to continuing that
3 collaboration on this and other CARB programs going
4 forward. Our detailed comments are included in our
5 written submission, but I'd like to highlight the
6 following priority concerns.

7 This industry is heavily regulated under numerous
8 CARB regulations, including recent actions being issued
9 simultaneously: the Advanced Clean Trucks Rule, which will
10 be further amended in the near future; the Heavy-Duty
11 Omnibus Low NOx Program, currently undergoing additional
12 15-day changes; and the upcoming Heavy-Duty I&M Program.

13 We respectfully request that the Board take note
14 of the overlapping programs, especially where regulatory
15 changes to one program would create conflicting or
16 duplicative requirements with another, as in the
17 case (inaudible). Further, the Board should consider the
18 burden, including compounding costs, that the multiple
19 regulations will increasingly impose on the regulated
20 industry.

21 In that regard, the Board has previously
22 instructed CARB staff to prepare a technical review of the
23 OBD requirements by 2021, including an updated analysis of
24 the costs of the OBD Program, which is by more than order
25 of magnitude the most expensive annual certification

1 program that manufacturers have to comply with. Staff
2 should be redirected to complete that review by the end of
3 the year and a separate informational hearing should be
4 held after notice and comment, so the Board can fully and
5 fairly consider the manner in which the OBD Program and
6 its costs continue to expand.

7 And to highlight certain technical comments, as
8 discussed in the draft SAE J3349, sensor accuracy
9 taskforce report and noted by manufacturers in discussions
10 with staff, exclusion of negative NOx sensor values can
11 have a significant impact on the accuracy of cumulative
12 NOx emissions for ultra-low NOx emission systems, and we
13 request that CARB allow for the inclusion of negative NOx
14 sensor concentration.

15 While improved understanding of accelerated aging
16 versus real-world experience is a highly desirable goal,
17 the amendments to catalyst malfunction criteria regarding
18 field return parts are unworkable as proposed. For
19 heavy-duty vehicles, field returns containing approximate
20 best performing unacceptable parts likely will not appear
21 before a vehicle exceed 750,000 miles, which could take
22 five years to accumulate.

23 Comparing a five-year old field return part with
24 an aged part of the same design will not reliably
25 correlate with an accelerated aged part of a new design

1 due to changes in useful life and threshold requirements.

2 The data and validation requirements of the
3 upcoming Heavy-Duty I&M Program would create duplicative
4 requirements with existing OBD reporting requirements. We
5 recommend streamlining or consolidating of the overlapping
6 data submissions to better align the two programs and
7 would like to discuss with CARB staff potential options
8 for such consolidation.

9 The economic analysis support does not take
10 cumulative aggregate costs into account and grossly
11 underestimates the regulatory cost impacts to
12 manufacturers, especially with regard to catalyst system
13 and absorber monitoring. Staff should reassess those
14 costs in light of EMA's comments.

15 We look forward to working with CARB on the
16 necessary revisions to the proposed amendments including
17 our suggested changes and thank you for the opportunity to
18 provide testimony today.

19 BOARD CLERK ESTABROOK: Thank you.

20 Michael Geller, I have activated your microphone.
21 You can unmute yourself and begin.

22 MICHAEL GELLER: Hello. Good morning, Chair
23 Randolph and members of the Board. My name is Michael
24 Geller and I'm the Deputy Director for the Manufacturers
25 of Emission Controls Association. MECA represents

1 manufacturers of combustion and electric technologies that
2 reduce both criteria and greenhouse gas emissions from all
3 mobile sources. From lawn mowers to marine vessels, MECA
4 members are delivering all the technology solutions for
5 clean mobility. Our members include companies that
6 manufacture sensors and control units used in OBD systems
7 for both light- and heavy-duty vehicles. These sensors
8 are used to monitor emission control and combustion
9 components, support maintenance, as well as provide data
10 for CARB's on-board monitoring requirements.

11 MECA supports CARB's OBD regulatory amendments
12 being considered by the Board today. We appreciate your
13 staff's hard work in developing this rule, including
14 meeting with MECA -- meeting with MECA and others
15 stakeholders. We have provided more specific suggestions
16 in our written comments. So in these remarks, I would
17 like to make some constructive recommendations for
18 consideration in future OBD regulatory revisions.

19 Sensor technology commercialization has a long
20 cycle, including testing, design, and real-world
21 deployment in the field to make sure sensors are both
22 reliable and durable. Just like other emission or
23 GHG-reducing technologies, including electrification,
24 sensor development is advanced by stringent predictable
25 regulations. Regulatory certainty secures investments

1 today to develop the technologies that will meet future
2 requirements. However, we also appreciate the challenge
3 faced by CARB OBD staff when trying to balance regulatory
4 stringency and technology readiness.

5 In other regulations, this has been addressed
6 through technology demonstration programs. And we think
7 these can be applied to OBD. For example, the recently
8 adopted Heavy-Duty Omnibus Regulation was informed by a
9 multi-year technology demonstration, in which OEMs,
10 emission control suppliers, and regulatory agencies,
11 including CARB, EPA, and South Coast AQMD, participated.
12 This program generated robust data that provided
13 justification to CARB that the adopted standards are
14 feasible, while providing regulatory certainty to
15 industry.

16 MECA members are currently supporting several
17 CARB-funded programs that will deliver confidence in
18 sensor technology and durability to inform future OBD
19 amendments. To conclude, MECA thanks staff -- CARB staff
20 for their dedication to continually improve OBD regulatory
21 requirements. We will remain engaged with staff on OBD
22 regulatory efforts through discussions and demonstration
23 programs. Our industry continues to respond to the need
24 for on-board diagnostics and telematics to facilitate
25 inspection and maintenance, as well as continuous

1 emissions monitoring by innovating and commercializing the
2 technologies that will help our customers meet CARB's OBD
3 requirements.

4 Thank you very much for your time.

5 BOARD CLERK ESTABROOK: Thank you. Our last
6 commenter for this item is Steven Douglas. Steven, I have
7 activated your microphone. You may unmute yourself and
8 begin.

9 STEVEN DOUGLAS: Thank you. Good morning, Chair
10 Randolph and members of the Board. I'm Steve Douglas with
11 the Alliance for Automotive Innovation representing car
12 companies that produce over 95 percent of the new vehicles
13 sold in California. Our 37 members also include Tier 1
14 suppliers, technology companies, and other value chain
15 partners. We've submitted rather detailed written
16 comments.

17 First, we support the changes that are being
18 proposed by the staff. We'd like to continue working with
19 the staff to fine-tune some of the wording in the
20 regulations to provide clarity. Second, I'd like to thank
21 the staff for their hard work on these changes. Over the
22 past 18 months, we've met with staff countless times and
23 we don't always agree. And, in fact, many times we don't
24 agree at all. However, they always try to understand our
25 concerns. They're always open to meet, discuss, debate,

1 review the data in a professional and transparent way. In
2 the end, we share a common goal of a robust OBD system.

3 And I'm not sure how aware the Board is, but the
4 OBD requirements are probably the most technically complex
5 regulations that ARB adopts. Thousands of times every
6 second on every vehicle sensors are read, calculations are
7 made, and values are compared to ensure that vehicles are
8 operating properly.

9 There's literally an army of very bright
10 automotive engineers around the world that develop,
11 validate, and implement systems to meet the requirements.

12 For their part, staff meets with car companies,
13 they meet with suppliers, they meet with other
14 stakeholders and they find just the right balance. And
15 when I say a balance, I'm not talking about balancing the
16 benefit of a \$20 component with a \$50 component. I'm
17 talking about walking kind of knife's edge where you make
18 requirements as stringent as possible to limit any excess
19 emissions without turning on the check engine light, but
20 not making them too stringent, so that the check engine
21 light comes on when there's no malfunction. These false
22 failures are a very real concern. They completely
23 undermine an effective program that we all support.

24 For customers, there's a very real consequence to
25 false failures. Older vehicles, those that are over eight

1 years, can't be registered if the check engine light is
2 on. So imagine a check engine light is on and a customer
3 is faced with either paying hundreds or thousands of
4 dollars, and again typically on older vehicles, to chase
5 down a problem that doesn't exist or simply not
6 registering their vehicle at all.

7 We as automakers are always very concerned about
8 this balance, but we believe the staff has found the right
9 balance here. Again, we appreciate the staff's hard work,
10 we appreciate the Board's work on this, and we'd like to
11 continue working with staff to fine-tune and clarify some
12 of the regulatory language.

13 Thank you.

14 BOARD CLERK ESTABROOK: Thank you.

15 Chair Randolph, that concludes the list of
16 commenters for this item.

17 CHAIR RANDOLPH: All right. Thank you. Staff,
18 are there any issues raised in the comments that you want
19 to address before I close the record?

20 EXECUTIVE OFFICER COREY: No additions, Chair.

21 CHAIR RANDOLPH: All right. I will now close the
22 record on this agenda item. If it is determined that
23 additional conforming modifications are appropriate, the
24 record will be reopened and a 15-day Notice of Public
25 Availability will be issued. If the record is reopened

1 for a 15-day comment period, the public may submit written
2 comments on the proposed changes, which will be considered
3 and responded to in the Final Statement of Reasons for the
4 regulation.

5 Written or oral comments received after this
6 hearing date but before the 15-day notice is issued will
7 not be accepted as part of the official record on this
8 agenda item.

9 The Executive Officer may present the regulation
10 to the Board for further consideration if warranted. And
11 if not, the Executive Officer shall take final action to
12 adopt the regulation after addressing all appropriate
13 conforming modifications.

14 Okay. And with that, I will ask if any Board
15 members have a question or comment, please click the raise
16 hand symbol on our Zoom call or Board members here in the
17 room can raise their hands here in the room.

18 Okay. First, we have Board Member De La Torre.

19 BOARD MEMBER DE LA TORRE: Thank you.

20 I'm supportive of this measure. I just -- it
21 just seems kind of a technical thing and we've had these
22 things on our cars for decades now. But it is one of the
23 major accomplishments of California with regard to
24 vehicles. The first was the catalytic converter, that was
25 us. The second was OBD, that was us. And then the third

1 is electric vehicles.

2 So we have pushed vehicle technology from
3 California from here over the decades. And, you know,
4 every once in a while it's good to remind ourselves where
5 we've been to show that we can get where we're going. So
6 I just wanted to thank staff. This is incredibly
7 technical work.

8 Certainly all of us have had that experience
9 where that little light comes on on our car, and then we
10 deal with it. We fix. And it's a very important thing.

11 I also wanted to point out that on all three of
12 those technological advances that we've pushed, the
13 manufacturers fought us, and -- on all three of them --
14 well, at least the first two, we have shown that this
15 works and we're still in the middle of the third. So I
16 think not only pat ourselves on the back, but know that we
17 know what we're talking about, and that we're -- we do a
18 very good job of what we do. And when the science is
19 there, and when our technical abilities are there, we make
20 it happen.

21 So thank you.

22 CHAIR RANDOLPH: All right. Thank you.

23 Board Member Eisenhut.

24 BOARD MEMBER EISENHUT: Thank you. I want to
25 affirm what Member De La Torre just articulated. I

1 support this measure and the 15-day amendments. The --
2 the -- I don't think what's been said or discussed
3 abundantly without our ability to monitor our regulations,
4 the regulations themselves are not always going to be met
5 with full compliance. And so this is an incredibly
6 important leg in our -- in our mission to regulate and
7 monitor those regulations of automotive and freight
8 emissions.

9 So I think we need to acknowledge that, because
10 it's been clear in fairly recent events that not everyone
11 is a willing participant, and these -- this ability is
12 key. And as I went through my briefing, I had a couple
13 really peripheral comments, because there were -- in the
14 discussion, there was limited representation from
15 consumers. And I think that having consumers at the table
16 or represented at the table is an important issue. And I
17 was very heartened by the third public commenter who, on
18 behalf of the manufacturers, articulated that concern and
19 supported it.

20 And I think in -- we need to acknowledge the
21 common language moving forward that's going to make it
22 more able for consumers to seek out their own mechanic,
23 their own logistical support that will have common access
24 to the required diagnostics. And that the common --
25 anyway, the common language will help enable that. So I

1 appreciate that aspect to this.

2 And I think last, one of the -- one of the
3 discussion points that we touched on, which I don't think
4 was in the presentation, was moving forward the
5 possibility, the likelihood of a wore -- of a more
6 wireless means of accessing this information. Staff is
7 aware of that, working on it, and I just bring it up to
8 offer support for that direction as we move forward. And,
9 Chair, I'm prepared to offer a motion when you are ready
10 to accept it.

11 CHAIR RANDOLPH: Okay. Great. We have a couple
12 more Board members who wanted to comment.

13 Board Member Hurt.

14 BOARD MEMBER HURT: Thank you, Chair. I wanted
15 to thank the staff and the stakeholders for the extensive
16 discussions around this revision and just noting my
17 appreciate for collaboration between industry and CARB.
18 It's good to hear the public comments and the ideas and
19 thoughts that we're exchanging and working together on.

20 I understand and appreciate that 2018 was the
21 last time we updated, and the technology, among many
22 things, is kind of forcing this regulation to come before
23 us. But I'm starting to think a little bit about
24 downstream so to speak, and Board Member Eisenhut touched
25 on it with regards to consumers. And so I just have one

1 question which is how will this affect, let's say, repair
2 shops and mechanics? Will they need to buy a new scan
3 tool hardware or is it just as simple as a software
4 upgrade?

5 EXECUTIVE OFFICER COREY: I'm going to go to
6 Annette Hebert, Deputy Executive Officer. And Annette,
7 you can start the response and bring in any staff as
8 appropriate.

9 BOARD MEMBER HURT: Thank you.

10 DEPUTY EXECUTIVE OFFICER HEBERT: Yes. Thank
11 you. So I'm going to turn it over to Mike Regenfuss to
12 confirm that if it's going to require a new scan tool or
13 it's just a software update, in this particular case,
14 keeping in mind, Ms. Hurt, that we do update this every
15 two to three years. We have to, because of technology
16 advancement, and sometimes it does require a software
17 update and sometimes a new scan tool. But I'll let Mike
18 explain for this particular case where we're at.

19 ON-BOARD DIAGNOSTICS BRANCH CHIEF REGENFUSS:

20 Yeah. Good morning. Thank you Annette. In this
21 case, it will be a software update to the existing
22 hardware.

23 BOARD MEMBER HURT: Great. Thank you. I just
24 think it's important, especially from the commenter
25 earlier about all the regulations that we're doing and the

1 impact it has on individuals and consumers, and, I guess,
2 mom and pop shops. But again, I'm very supportive of the
3 work that's been done by staff and I will vote to support
4 these revisions.

5 Thank you.

6 CHAIR RANDOLPH: All right. Thank you.

7 Dr. Balmes.

8 BOARD MEMBER BALMES: Thank you, Chair Randolph.

9 I just have a brief comment. While I agree with
10 Board Member De La Torre that we've done a great job at
11 technology-forcing regulations, including OBD, and it's
12 been a success for light-duty vehicles, I'm really looking
13 forward to OBD for heavy-duty vehicles. And that's -- I
14 don't think we can actually enforce our heavy-duty
15 regulations without OBD on those vehicles. So I just want
16 to emphasize that point.

17 And lastly, I want to congratulate Board Member
18 Hurt for the Bay Area Air Quality Management District's
19 recent decision to reduce emissions from refineries. Good
20 work. I also love that jukebox in the background.

21 CHAIR RANDOLPH: Hear, hear on both of those
22 congratulatory points to Board Member Hurt.

23 Okay. If we don't have any other comments, I
24 will ask Board Member Eisenhut to move the item.

25 BOARD MEMBER EISENHUT: Move for approval of item

1 21-6-1 with 15-day amendments.

2 BOARD MEMBER BALMES: Second.

3 CHAIR RANDOLPH: All right. We have a motion and
4 a second. Clerk would you please call the roll?

5 BOARD CLERK ESTABROOK: Yes. Thank you.

6 Dr. Balmes?

7 BOARD MEMBER BALMES: Yes.

8 BOARD CLERK ESTABROOK: Mr. De La Torre?

9 Mr. Eisenhut?

10 BOARD MEMBER EISENHUT: Yes.

11 BOARD CLERK ESTABROOK: Supervisor Fletcher?

12 BOARD MEMBER FLETCHER: Fletcher, aye.

13 BOARD CLERK ESTABROOK: Senator Florez?

14 BOARD MEMBER FLOREZ: Florez, aye.

15 BOARD CLERK ESTABROOK: Ms. Hurt?

16 BOARD MEMBER HURT: Aye.

17 BOARD CLERK ESTABROOK: Mr. Kracov?

18 BOARD MEMBER KRACOV: Yes.

19 BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

20 BOARD MEMBER PACHECO-WERNER: Yes.

21 BOARD CLERK ESTABROOK: Mrs. Riordan?

22 BOARD MEMBER RIORDAN: Aye.

23 BOARD CLERK ESTABROOK: Supervisor Serna?

24 BOARD MEMBER SERNA: Aye.

25 BOARD CLERK ESTABROOK: Professor Sperling?

1 Ms. Takvorian.

2 BOARD MEMBER TAKVORIAN: Aye.

3 BOARD CLERK ESTABROOK: Vice Chair Berg?

4 VICE CHAIR BERG: Aye.

5 BOARD CLERK ESTABROOK: Chair Randolph?

6 CHAIR RANDOLPH: Yes.

7 BOARD CLERK ESTABROOK: Madam Chair, the motion
8 passes.

9 CHAIR RANDOLPH: All right. Thank you.

10 We will now move to open public comment. If you
11 wish to provide a comment regarding an item of interest
12 within the jurisdiction of the Board that is not on
13 today's agenda, please raise your hand in Zoom or dial
14 star nine if you are on the phone.

15 Will the Board Clerk please call on those who
16 have raised their hand.

17 BOARD CLERK ESTABROOK: Yes. Thank you, Chair.
18 We currently have four members of the public with hands
19 raised to speak on this item. The first three commenters
20 are Meredith Alexander, Yvonne Watson, and Sean Edgar.

21 Meredith, I have activated your microphone. You
22 may unmute yourself and begin.

23 MEREDITH ALEXANDER: Thank you very much. Can
24 you hear me?

25 BOARD CLERK ESTABROOK: Yes, we can.

1 MEREDITH ALEXANDER: Great. Thank you. Good
2 morning, Chair Randolph and members of the Board. I'm
3 Meredith Alexander, Policy Director for CALSTART.
4 CALSTART, as you may be aware, is a member-based
5 non-profit with over 270 members dedicated to transforming
6 the transportation industry. Our members include vehicle
7 manufacturers, EV charging and zero-emission fuel
8 producers, public and private fleets, other nonprofits,
9 and more.

10 I'm here today to speak about something, as I
11 said, that isn't on the agenda, which is to recommend that
12 the Board explore the viability of a light-duty vehicle
13 fleet purchase requirement that would mirror those being
14 developed for medium- and heavy-duty fleets under the
15 Advanced Clean Fleets rulemaking. We submitted a letter
16 to the Board yesterday with the Coalition for Clean Air
17 and the Sierra Club. Our letter recommends that rental,
18 commercial, and government fleets that operate Class 1 to
19 2A vehicles be required to purchase an increasing
20 percentage of ZEVs beginning in 2025, increasing up to a
21 hundred percent by 2030.

22 We think that such a rule could be really
23 impactful and some elements of these requirements could be
24 incorporated into existing rulemakings. And, of course,
25 we recognize that others may require a new rulemaking.

1 We know that Governor Newsom's Executive Order
2 will mandate a hundred percent zero-emission light-duty
3 vehicles by 2035 and then Advanced Clean Cars II
4 rulemaking is working towards a timeline to achieve this.

5 We really applaud this work. And after doing a
6 lot of analysis, CALSTART believes that a fleet purchase
7 mandate should be developed to mirror the fleet
8 requirements being considered for medium- and heavy-duty.
9 This could impact 450,000 light-duty fleet sales every
10 year and help add two million EVs to our roads by 2030,
11 which would improve air quality, reduce greenhouse gas
12 emissions, and help establish the robust used EV market
13 that we really need to reduce prices for consumers, while
14 also raising consumer awareness.

15 So CALSTART will be following up in the near
16 future with a full white paper that further explains how
17 we view the rule and the analysis that we've done. And we
18 would really appreciate the chance to speak with you and
19 obviously with staff over the coming weeks and months to
20 provide additional information and discuss how such fleet
21 purchase requirements could be incorporated into existing
22 rulemakings or be developed in the future.

23 Thank you very much for your time.

24 BOARD CLERK ESTABROOK: Thank you.

25 Next, we have Yvonne Watson. Yvonne, I've

1 activated your microphone. You may unmute yourself and
2 begin.

3 YVONNE MARTINEZ WATSON: Hello. This Yvonne
4 Martinez Watson. I'm the Chair of the Environmental and
5 Social Justice Committee for the Angeles Chapter of the
6 Sierra Club. I'm here to speak on the delay in the
7 rulemaking for -- regarding chromium -- chrome plating
8 facilities and hexavalent chrome(VI).

9 I want to remind you that many of the facilities
10 that conduct these activities are located in communities
11 of color, so this is an environmental justice issue. I
12 have heard from people in these communities who are very,
13 very concerned and worried about the health of their
14 families, their children, and everybody else in the
15 neighborhoods because many of these facilities are located
16 very close to schools, churches, and other areas where
17 people congregate. And these people have a right to be
18 concerned. They have a right to be worried about the
19 health of their communities.

20 I would like to know what does CARB intend to do
21 about this type of air pollution and eventually water
22 pollution, because what -- some of the chemical
23 suppressants being used containing -- contain either PFAS
24 or PFOA, PFOS chemicals. And we would like to have CARB
25 take a look at this and stop delaying on this ruling,

1 because people are getting sick right now. Especially
2 right now with the drought that we have, we need to
3 protect our water supplies. I live in a community with
4 water wells that have been affected by PFAS.

5 We want you to really continue to do fenceline
6 monitoring. And for those communities that do not
7 currently have that type of monitoring, it would be nice
8 if you could actually make that available to people,
9 because people need to know what's going on. But more
10 than that, they want action. They want you to actually do
11 something. It's not enough to be told there's a problem.
12 People want to know what you're going to do about solving
13 it.

14 Thank you for your time. And I ask you that you
15 get back to work on this and get this moved forward as
16 quickly as possible.

17 Thank you.

18 CHAIR RANDOLPH: Thank you.

19 Sean Edgar, I have activated your microphone.
20 You may unmute yourself and begin.

21 Sean, are you there?

22 Sean, it looks like you're unmuted.

23 I'll try one more time.

24 It looks like you're unmuted on our end. We just
25 can't hear you.

1 Sean, I'm going to come back to you. Otherwise,
2 if you want to call in to the number that's on the screen
3 and then dial the -- dial star nine to raise your hand,
4 then I'll go ahead and try to call you that way.

5 So now I'm going to go to Robina Suwol. Robina,
6 I have activated your microphone. You can unmute yourself
7 and begin.

8 ROBINA SUWOL: Thank you. Good morning. My name
9 is Robina Suwol. I'm the Executive Director of California
10 Safe Schools. We're a children's environmental health and
11 environmental justice coalition founded in 1998. And
12 we've actively participated in CARB's workshop on the
13 chrome plating rule. And we're really shocked to receive
14 an email from staff that stated that they were delaying
15 the adoption of the rule for months and the implementation
16 of the rule for 10 to 15 years.

17 We don't understand why this delay was not
18 discussed in the workshops and are rather dismayed about
19 that, because our concerns surround the fact that there
20 are many, many chrome platers that are located next to
21 schools and to residences. And if CARB is not going to
22 require a more rapid phaseout of these dangerous
23 chemicals, can it please adopt a rule that requires
24 stricter emission limits, fence-line monitoring, and
25 enhanced enforcement for facilities located within feet

1 from schools and residences.

2 Thank you very much.

3 BOARD CLERK ESTABROOK: Thank you. Okay. It
4 looks like we have a call-in, and I believe this is Sean.
5 I have activated your microphone. You can unmute yourself
6 and begin.

7 Sean, are you there?

8 SEAN EDGAR: Hi. Good morning. Can you hear me?

9 BOARD CLERK ESTABROOK: Yes, we can.

10 SEAN EDGAR: Great. Thank you for the
11 opportunity to provide open comments this morning relative
12 to infrastructure associated with the Advanced Clean
13 Trucks and Advanced Clean Fleets regulations come before
14 the Board later this year. The Board may have noted that
15 just yesterday Pacific Gas, and Electric, or PG&E,
16 announced its efforts and commitment to conduct what they
17 called a Marshall Plan to place underground 10,000 miles
18 of electricity facilities in California.

19 We know that this effort is going to take decades
20 and it will take billions in costs to business and
21 residential customers in California. In my prior
22 testimony to the Board, you heard that the -- my
23 experience in 30 years in public policy tells me that the
24 Board really needs to take their own approach as a
25 Manhattan type of project to be at the very tip of the

1 sword in order to make sure that Advanced Clean Fleets
2 users have access to the infrastructure that they're going
3 to need to rollout electric vehicles in California.

4 And we know that CARB cannot be simply a
5 bystander and notetaker in this process. And so we're
6 going to ask CARB staff and CARB Board members to take a
7 personal involvement and investment in making sure that
8 infrastructure is available and that there is a cash flow
9 analysis, because currently in your proposals it has an
10 up-front cost of over \$9 billion, and there's no cash flow
11 analysis of that.

12 And we know that PG&E has demonstrated a lack of
13 care for its customers and its ability to take care of
14 infrastructure in the past. And so it begs the question,
15 if PG&E has its own Marshall Plan, can they do the
16 Manhattan Plan that you're going to require from Advanced
17 Clean Fleets and Advanced Clean Truck rollout?

18 You've heard from the manufacturers that no sense
19 them building electric vehicles if the customer does not
20 have a place to plug that in before they deliver a
21 vehicle, so infrastructure is critical.

22 In the time I have left, I'll just turn to
23 Professor Sperling's comments yester -- last meeting on
24 the Scoping Plan, where he noticed -- noted multiple
25 studies talking about electric vehicles being hands down a

1 good choice and the direction the state needs to move, and
2 I'll just also just reference where the state is spending
3 its own money.

4 So I would ask you all to take a close look at
5 your 2021 annual report for the Cap-and-Trade revenues.
6 And I believe what you'll see in there is that where the
7 Board is spending Cap-and-Trade revenues for R&G
8 production and use in trucks that are low NOx, you're
9 getting short-lived climate pollutant reductions now and
10 you're also experiencing significant cost-benefit analysis
11 as compared to where the Board is sending its money on all
12 electric vehicle projects. So I would encourage that as a
13 data point for future discussion at a future Board item.

14 And then the last item, I would just -- I was
15 encouraged by Professor Eisen -- or Mr. Eisenhut's
16 conversation about cost to consumer. So here in the City
17 of Sacramento where I live, my trash bill is in the middle
18 of doubling over the next three years. Part of that is to
19 roll out SB 1383 to provide short-lived climate pollutant
20 reductions from organic waste to prevent it from going
21 into the landfills. And then the second part of --

22 BOARD CLERK ESTABROOK: Thank that concludes --

23 SEAN EDGAR: -- the rate increase --

24 BOARD CLERK ESTABROOK: Thank you. Sorry about
25 that, Sean. I realize on the phone, you can't see the

1 timer. So that concludes the time for the comments.

2 Thank you.

3 Chair Randolph, that concludes the list of
4 commenters for this item.

5 CHAIR RANDOLPH: Okay. Thank you. I will just
6 note in response to a couple of the comments about the
7 chrome plating rule, that rule is still ongoing and we
8 will certainly encourage staff to make sure to keep the
9 community and stakeholders informed.

10 BOARD CLERK ESTABROOK: Chair Randolph, I do have
11 one more person that actually raised their hand for open
12 comment. I'm sorry.

13 CHAIR RANDOLPH: Oh, okay.

14 BOARD CLERK ESTABROOK: I have a phone number
15 ending in 528. I have activated your microphone. You can
16 unmute yourself and begin.

17 LAURA ROSENBERGER HAIDER: Hello. This is Laura
18 Rosenberger Haider. I'd like to make a suggestion which
19 will reduce the greenhouse has emission and sequester more
20 carbon, and that is smaller houses. Smaller houses use
21 less big trees, and big trees in the forestlands are
22 needed to sequester carbon. And the shrubs, there will be
23 extra space in the yard for shrubs. And if the house is
24 smaller, you can put like an -- actually an organic herb
25 garden and little fruit tries and things, and -- so a

1 whole bunch of peat could be brought there, where it would
2 be safer and less likely to go on fire, like in the middle
3 of the towns where the fire trucks are to distinguish it.

4 All right. Thanks.

5 BOARD CLERK ESTABROOK: Thank you.

6 And, Chair Randolph, that concludes the list.

7 CHAIR RANDOLPH: All right. Thank you. That
8 concludes our July 22nd, 2021 Board meeting. We are now
9 adjourned. Thank you.

10 BOARD MEMBER TAKVORIAN: Was there no opportunity
11 to respond to the public comments?

12 CHAIR RANDOLPH: Oh, sorry. I did -- go ahead.
13 I didn't see your hand. I'm sorry.

14 BOARD MEMBER TAKVORIAN: That's okay. That's
15 okay. I'm way down here at the other end of the dais.

16 Thank you. Sorry. I just -- I just wanted to, I
17 guess, ask staff -- I appreciated the questions and
18 comments that were made about the hex chrome rule. And I
19 have to say I was -- I'm a bit confused, because I've
20 appreciated the staff's work on the rule. And we -- the
21 Board recently received an update from Richard on it. And
22 I did not -- there was no indication of any kind of delay
23 there. So I thought perhaps it was an opportunity for
24 staff to provide an update. I know there have been
25 requests for chrome plating facility tours. I'm going on

1 one soon myself and I think other Board members probably
2 are participating. So perhaps if it's possible, we could
3 just get a response to those comments from staff.

4 CHAIR RANDOLPH: Yes. I will ask Mr. Corey to
5 respond. As I noted, that rulemaking is ongoing. It has
6 not stopped, but I will -- I'll ask the Executive Officer
7 to respond.

8 EXECUTIVE OFFICER COREY: Yes. Thanks, Chair and
9 Board Member Takvorian. As you noted, the Board years ago
10 adopted a statewide ATCM, Airborne Toxic Control Measure,
11 for hexavalent chrome platers, and subsequently amended
12 it, strengthened it, so it was applicable statewide.

13 But as you noted, we are currently engaged in the
14 rulemaking activity to further tighten that regulation for
15 both decorative and hard platers -- hard plating
16 operations. And including in that, as you know, the
17 objective is to further drive down emissions, because many
18 of these platers, as you are very familiar with, are
19 located in close proximity or right in communities, in
20 many cases right near residents. And even with the
21 existing controls, there's the need to further reduce
22 those emissions.

23 So as part of the staff work that's been going
24 on, we're identifying where are those opportunities to
25 reduce emissions, in some cases possibly looking at the

1 full phaseout and been securing additional information as
2 part of that. And as you noted, Board Member Takvorian,
3 several staff have been going to a number of platers,
4 because there's different types, decorative car platers.
5 And actually I and the Chair as well have been going to
6 several sites as well to really inform the follow-up.

7 We believe based on the analysis that we're in
8 the middle, it will take additional -- some additional
9 time. We expect that we will be back in front of the
10 Board with the proposed amendments to the regulation next
11 year. So we're really working through that with a very
12 clear objective of securing -- maximizing the reductions
13 and public health benefits. We're also looking at and
14 working with the South Coast District in terms of the rule
15 they recently adopted, and there are opportunities for
16 further improvements and so on, and so underway.

17 And what we would do is I love the idea of Board
18 members -- additional Board members attending some of the
19 site visits. And certainly can get that information to
20 the Board to participate in those tours, which is
21 particularly useful. And we'll keep the Board informed as
22 we are looking at the proposed amendments.

23 But some more staff work to do. Objectives are
24 very clear, both -- and we are aligned with the comments
25 and the concerns that folks raised in terms of near-source

1 exposures and the need to secure further reductions.

2 So on that, Chair, I'll turn it back to you.

3 CHAIR RANDOLPH: Great. Thank you.

4 Board Member Kracov.

5 BOARD MEMBER KRACOV: Yes. Thank you very much
6 for that. And I appreciate the stakeholders coming in to
7 talk today. The chrome plating issue and that chromium
8 issue is important in the South Coast Air District that I
9 represent. I appreciate Member Takvorian raising this and
10 the comments of Mr. Corey. I just wanted to chime in and
11 say that I also am interested in participating in the rule
12 development to the extent appropriate and want to be a
13 partner and an ally in this work.

14 Thank you.

15 CHAIR RANDOLPH: Thank you.

16 Okay. Now I am double checking to make sure that
17 we have no other -- oh, Board Member Hurt.

18 BOARD MEMBER HURT: Sorry for that. I thought I
19 would expand on Board Member Balmes' comments earlier with
20 regards to the Bay Area Air Quality Management District
21 yesterday voted to strengthen the Air District's refinery
22 rule to reduce particulate matter emissions from petroleum
23 refineries. And this rule is now the most healthy,
24 protective, and stringent regulation of its kind in the
25 country, and it passed 19 to 3. So I just wanted to let

1 everybody know to look to that rule and hopefully we can
2 replicate it throughout the state.

3 Thank you.

4 CHAIR RANDOLPH: Thank you very much.

5 A very, very important decision and
6 congratulations on that.

7 Okay. Double checking again. All right. We are
8 now concluded and adjourned.

9 Thank you, everyone.

10 (Thereupon the Air Resources Board meeting
11 adjourned at 10:08 a.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 29th day of July, 2021.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
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