VIDEOCONFERENCE MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

ZOOM PLATFORM

FRIDAY, NOVEMBER 19, 2021 9:13 A.M.

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

APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

Sandra Berg, Vice Chair

John Balmes, MD

Hector De La Torre

John Eisenhut

Supervisor Nathan Fletcher

Senator Dean Florez

Assemblymember Eduardo Garcia

Davina Hurt

Gideon Kracov

Senator Connie Leyva

Tania Pacheco-Werner, PhD

Barbara Riordan

Supervisor Phil Serna

Dan Sperling, PhD

Diane Takvorian

STAFF:

Richard Corey, Executive Officer

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

Chanell Fletcher, Deputy Executive Officer, Environmental Justice

STAFF:

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

Edna Murphy, Deputy Executive Officer, Internal Operations

Rajinder Sahota, Deputy Executive Officer, Climate Change and Research

Craig Segall, Deputy Executive Officer, Mobile Sources and Incentives

Ellen Peter, Chief Counsel

Heather Arias, Division Chief, Transportation and Toxics Division (TTD)

Rich Boyd, Assistant Division Chief, TTD

Michelle Buffington, Manager, Off-Road Agricultural Strategies and Incentives Section, Mobile Source Control Division (MSCD)

Ben Carrier, Senior Attorney, Legal Office

Peter Christensen, Branch Chief, Innovative Strategies Branch, MSCD

Mario Cruz, Chief, Climate Investments Branch, Sustainable Transportation and Communities Division(STCD)

Jessica Gordon, Senior Attorney, Legal Office

Jennifer Gress, PhD, Chief, STCD

Tracy Haynes, Manager, Freight Incentives Section, TTD

Melissa Houchin, Air Resources Engineer, Freight Technology Section, TTD

Kelly Kerber, Manager, Climate Investments Policy Section, STCD

Debbie Kerns, Senior Attorney, Legal Office

STAFF:

Lisa Macumber, Manager, Innovative Light-Duty Strategies Incentives Section, MSCD

Andrea Morgan, Air Resources Engineer, Advanced Transportation Incentives Strategies Section, MSCD

Lucina Negrete, Assistant Division Chief, MSCD

Cory Parmer, Manager, Off-Road Diesel Analysis Section, Air Quality Planning and Science Division (AQPSD)

David Quiros, Manager, Freight Technology Section, TTD

Scott Rowland, Branch Chief, Incentives and Technology Advancement Branch, MSCD

Anna Scodel, Staff Air Pollution Specialist, Climate Investments Policy Section, STCD

Bonnie Soriano, Branch Chief, Freight Activity Branch, TTD

Steven Toft, Air Pollution Specialist, Compliance Assistance and Outreach Section, MSCD

Sylvia Vanderspek, Branch Chief, Air Quality Planning Branch, AQPSD

Sydney Vergis, PhD, Division Chief, MSCD

Alex Wang, Senior Attorney, Legal Office

ALSO PRESENT:

Alan Abbs, Bay Area Air Quality Management District

Meredith Alexander, CALSTART

Kenny Allen

Shayda Azamian, Leadership Counsel for Justice and Accountability

ALSO PRESENT:

James Babcock

Tom Babineau, Rypos

Graham Balch, Green Yachts

William Barrett, American Lung Association

Rebecca Baskins, California Advanced Biofuels Alliance

Lindsay Battenberg, Proterra

Kelly Baughman, Crowley Maritime Corporation

Leon Benham

Kimberly Bennink

Sylvia Bentacourt, Long Beach Alliance for Children with Asthma

Anthony Bento, California New Car Dealers Association

Beau Biller, Marine Recreation Association, California Yacht Brokers Association, California Association of Harbor Masters and Port Captains

Raymond Boetger

Greg Bombard, Catalina Express

John Bottorff, CleanEarth4Kids.org

Gary Brennan, San Diego County Wildlife Federation

Donald Brockman, Davey's Locker Sportfishing and Whale Watching

David Brown, Balboa Island Ferry

Teresa Bui, Pacific Environment

Michael Cacciotti, Mayor Pro Tem, City of South Pasadena

ALSO PRESENT:

Tim Carmichael, SoCalGas

Christopher Chavez, Coalition for Clean Air

Wesley Chuang

David Cook

Martin Curtin, Curtin Maritime

Alex Davis, Metrolink

Jared Davis, Golden State Salmon Association, Golden Gate Fishermen's Association

Marlin Dawoodjee, Long Beach Alliance for Children with Asthma

Jamie Diamond, Sportfishing Association of California

Janet Dietzkamei

Steven Douglas, Alliance for Automotive Innovation

Paul Dyson

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

Tim Ekstrom, Royal Star

Thomas Ferguson

Michael Fleming

Paula Forbis, San Diego Air Pollution Control District

Michael Franchak, Relentless Charters

Ken Franke, Sportfishing Association of California

Martin Froger Silva

Laurence Fromm, Achates Power

ALSO PRESENT:

Michael Geller, Manufacturers of Emission Controls Association

Ranji George

Tim Gillespie

Theral Golden, West Long Beach Association

Ben Granholm, Western Propane Gas Association

Patrick Guild, Breathe California, Sacramento

Kevin Hamilton, Central California Asthma Collaborative

Scott Hedderich, Renewable Energy Group

Charlie Helms, California Association of Harbor Masters and Port Captains

Jim Holden, Fish For Life

Matt Holmes, Little Manila Rising

Regina Hsu, Earthjustice

Robert Hughes

Suzanne Hume, CleanEarth4Kids.org

Greg Hurner

Jibiana Jakpor

Karen Jakpor, MD, American Lung Association

Sadie Johnson

Tom Jordan

Donna Kalez, Dana Wharf Sportsfishing and Whale Watching

Kathleen

ALSO PRESENT:

Thomas Keller, Clean Cold Power

Ryan Kenny, Clean Energy

Tom Kieffer

Merlin Kolb, Reel Magic Sportsfishing

Joseph Kleitman

Wayne Kotow, Coastal Conservation Association of California

Benjamin La Brot, MD, Floating Doctors

Sebastian Lanswik

Cynthia Lau, Environmental Justice Coalition for Water, Café Coop

Lisa Lavelle, City of Avalon City Councilmember

Tung Le, California Air Pollution Control Officers Association

Julia Levin, Bioenergy Association of California

Andrea Lueker, California Association of Harbor Masters and Port Captains

Jim Luttjohann, Catalina Island Tourism Authority

Daniel Mabe, American Green Zone Alliance

Cinde MacGugan-Cassidy, Mayor Pro Tem, City of Avalon

Brian Magaline, Lucky Six

Bill Magavern, Coalition for Clean Air

Fred Main, Chamber of Commerce Alliance: Ventura, Santa Barbara, San Luis Obispo

Raquel Maronde

ALSO PRESENT:

David McCloy, San Francisco Bar Pilots

Vickie McMurchie, Dana Point Chamber of Commerce

Barry McCooey, M&H Engineering

Markus Medak, New Lo-An

Sherrie Merrow, NGVAmerica

Matt Miyasato, South Coast Air Quality Management District

Jeffrey Morris

Miles Muller, Natura Resources Defense Council

Alicia Murphy

Jimmy O'Dea, CALSTART

Rick Oefinger, Marina Del Rey Sportfishing

Mark Ortega

Michael Parmer, City of Avalon

Roma Partida-Lopez, Greenlining Institute

Mark Pisano

Rick Powers, Golden Gate Fishermen's Association

Chauncey Preal, Sea Jay

Ernie Prieto, Oceanside Sea Center

Hannon Rasool, California Energy Commission

Ashley Remillard, Hexagon Agility

Frank Rescino

Nicole Rice, California Natural Gas Vehicle Coalition

ALSO PRESENT:

James Robertson, Outer Limits

Lacy Robertson, Rush Enterprises

Gambit Ruiloba

Sharon Sand, The Trust for Public Land

Tim Sasseen, Ballard Power Systems

J. Scott Scheper

Matthew Schrap, Harbor Trucking Association

Troy Sears, Next Level Sailing

Douglas Shaftel

Chris Shimoda, California Trucking Association

Jonathon Smith, Happy Hooker

William Smith, Riptide

Paul Strasser

Tom Swenson, Cummins

Steven Taft

Jorge Daniel Taillant, Center for Human Rights and Environment

Michael Thompson

Bonnie Trowbridge, Zeem Solutions

Mike Tunnell, American Trucking Association

Eileen Tutt, California Electric Transportation Coalition

Fern Uennatornwaranggoon, Environmental Defense Fund

Frank Ursitti, H&M Landing

ALSO PRESENT:

Jhana Valentine, Clean Vehicle Association Program
Tom Van Heeke, Rivian

Brian Vahey, The American Waterways Operators
Mandeera Wijetunga, Pacific Environment
William Wilkerson

Joy Williams, Environmental Health Coalition Sam Wilson, Union of Concerned Scientists Duane Winter, Mooch Better

Corchelle Worsham, San Diego Port Tenants Association
David Yow, Port of San Diego

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CHAIR RANDOLPH: All right. Good morning. The November 19th, 2021 public meeting of the Air Resources Board will come to order.

Board Clerk, would you please call the roll?

BOARD CLERK ESTABROOK: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK ESTABROOK: Mr. De La Torre?

BOARD MEMBER DE LA TORRE: Here.

BOARD CLERK ESTABROOK: Mr. Eisenhut?

BOARD MEMBER EISENHUT: Here.

BOARD CLERK ESTABROOK: Supervisor Fletcher?

BOARD MEMBER FLETCHER: Fletcher here.

BOARD CLERK ESTABROOK: Senator Florez?

BOARD MEMBER FLOREZ: Florez here.

BOARD CLERK ESTABROOK: Assemblymember Garcia?

ASSEMBLY MEMBER GARCIA: Garcia Present.

BOARD CLERK ESTABROOK: Ms. Hurt.

BOARD MEMBER HURT: Present.

BOARD CLERK ESTABROOK: Mr. Kracov?

BOARD MEMBER KRACOV: Here.

BOARD CLERK ESTABROOK: Senator Leyva?

SENATOR LEYVA: Here.

BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?

BOARD MEMBER PACHECO-WERNER: Here.

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BOARD CLERK ESTABROOK: Mrs. Riordan?
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             BOARD MEMBER RIORDAN:
2
                                    Here.
             BOARD CLERK ESTABROOK:
                                     Supervisor Serna?
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             BOARD MEMBER SERNA: Here.
             BOARD CLERK ESTABROOK: Professor Sperling?
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             BOARD MEMBER SPERLING: Here.
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             BOARD CLERK ESTABROOK: Ms. Takvorian?
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             BOARD MEMBER TAKVORIAN: Here.
             BOARD CLERK ESTABROOK: Vice Chair Berg?
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             VICE CHAIR BERG: Here.
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             BOARD CLERK ESTABROOK: Chair Randolph?
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             CHAIR RANDOLPH:
                              Here.
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             BOARD CLERK ESTABROOK: Madam Chair, we have a
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    quorum.
                              Thank you. As you may notice,
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             CHAIR RANDOLPH:
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    we are conducting our first hearing at our brand new
    Southern California headquarters in Riverside dedicated
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    yesterday as the Mary D. Nichols campus. Our campus is
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    designed to be the largest zero net energy facility in the
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    U.S. despite being the home of our mobile source testing
    laboratories, along with 400 plus staff. UC Riverside
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    donated the land to the State, or rather sold it to us for
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    $1. While the City, County, and Chamber of Riverside have
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worked hard on forming strong partnerships with CARB to

make this CARB headquarters in Riverside an air quality

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and climate change program destination. We're excited to be participating from this new facility and look forward to welcoming the public here in the future.

2.2

Okay. On to a few housekeeping items. In accordance with Assembly Bill 361, we are conducting today's meeting remotely using Zoom with public participation options available both by phone and over Zoom.

A closed captioning feature is available for those of you joining us in the Zoom environment. In order to turn on subtitles, please look for a button labeled "CC" at the bottom of the Zoom window, as shown in the example on the screen now.

I would like to take this opportunity to remind everyone to speak clearly and from a quiet location, whether you are joining us in Zoom or calling in by phone.

Interpretation services will be provided today in Spanish. If you are joining us using Zoom, there is a button labeled "interpretation" on the Zoom screen. Click on that interpretation button and select Spanish to hear the meeting in Spanish.

(Interpreter translated in Spanish)

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

BOARD CLERK ESTABROOK: Thank you, Chair. Good

morning, everyone. My name is Katie Estabrook and I am one of the Board clerks here. I will be providing some information on how public participation will be organized for today's meeting. And as the Chair mentioned, we are at our new facility and so your patience is appreciated today.

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If you wish to make a verbal comment on one of the Board items during the open comment period -- or at the open comment period at the end of today's meeting, you must be joining using the Zoom webinar or calling in by phone. If you're currently watching the webcast on CalSPAN, but you do wish to comment, please register for the Zoom webinar or call in. Information for both can be found on the public agenda. To make a verbal comment, we will be using the raise-hand feature in Zoom. If you wish to speak on a Board item, please virtually raise your hand as soon as the item has begun to let us know you wish to To do this, if you are using a computer or tablet, there is a raise-hand button. If you are calling on the telephone, dial star nine to raise your hand. Even if you previously indicated which item you wished to speak on when you registered, you must raise your hand at the beginning of the item so that you can be added to the queue so your chance to speak will not be skipped.

If you will be giving a verbal comment in Spanish

and require an interpreter's assistance, please indicate so at the beginning of your testimony and our translator will assist you. During your comment please pause after each sentence to allow the interpreter to translate your comment into English.

2.2

When the comment period starts, the order of commenters will be determined by who raises their hand first. I will call each commenter by name and will activate each commenter's audio when it is their turn to speak. For those calling in, I will identify you by the last three digits of your phone number. We will not be showing a list of commenters, however I will announce the next three or so commenters in the queue, so you are ready to testify and know who is coming up next. Please note that you will not appear by video during your testimony.

I would also like to remind everyone to please state your name for the record before you speak. This is important in the remote-only setting. It is especially important for those calling in by phone to testify on an item. We will have a time limit for each commenter. The normal time limit is three minutes. Although, this could change based on the Chair's discretion. During public testimony, you will see a timer on the screen. For those calling in by phone, we will be running the timer and let you know when you have 30 seconds left and when your time

is up. If you are requiring Spanish interpretation during your comment, your time will be doubled.

2.2

If you wish to submit written comments today, please visit CARB's send-us-your comments page or look at the public agenda on our webpage for links to these -- to send documents electronically. If you experience any technical difficulties, please call (805)772-2715 so an IT person can assist you. This number is also posted on the public agenda.

Thank you. I'll turn it back to you, Chair.

CHAIR RANDOLPH: Thank you very much. Before we go to your furst agenda, Board Member Kracov had a brief question for our Executive Officer.

BOARD MEMBER KRACOV: Thank you, Chair.

I was wondering, Mr. Corey, if you can briefly touch on something that our staff prepared this week.

It's a document called, "The Emissions Impact of Ships Anchored at the Ports of Los Angeles and Long Beach".

EXECUTIVE OFFICER COREY: Yes, happy to, Mr.

Kracov. So over the last several months, you're well

aware the backlog that we've all seen at the ports. And

the ongoing assessment that we've been doing, and doing in

collaboration actually with the South Coast staff, in

terms of trying to characterize the emission implications,

as well as potential -- or the air quality implications of

that backlog. What we've seen -- just as a few examples and we published information on this. We did back in September and we did, just as you noted, earlier this month. So as we're making discoveries and identification the underlying analysis that we're doing, we're continuing to publish and get that information out there. But just in terms of TEU, truck equivalent unit, increase that we've seen at the San Pedro Bay Ports, Port of Long Beach, Port of LA, 28 percent increase over the last three quarters in 2021 relative to 2019.

2.2

In terms of number of ships off port at anchorage off of San Pedro Bay ports, up to over a hundred vessels -- over a hundred vessels, about 80 percent of those being cargo containerships. And if you look at what are the emission implications of those ships at anchorage, from a NOx standpoint about up to 20 tons a day in NOx. Relative to historically in terms of at anchorage emissions, there's about 0.1 ton. So you can get a sense of the magnitude of the emissions.

You can also get a sense of the conversation we've all had in terms of the challenges of attainment of the 80 -- 8-hour 80 ppb ozone standard in the South Coast, and the conversation we've all had in the context of the SIP and the additional 108 tons a day that we're all working very hard to achieve, 20 tons on top of that is a

20 percent increase, very, very significant. In terms of the diesel or PM emission increases, about a half a ton a day, basically the equivalent of a hundred thousand trucks.

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So as the effort continues to move forward in terms of breaking that log jam, no doubt that it is underscoring the efforts that we continue to go through to transition out of combustion. In the Advanced Clean Truck Regulation, this Board acted on the Advanced Clean Fleet Reg that will be coming back to this Board, as well as the TRU, transport refrigeration truck, and the locomotive, right, all those elements in driving down emissions and transitioning out of combustion is going to be critically important, including the reg that the Board will be considering later today on the Harbor Craft Regulation, and the work that we're doing to characterize the air quality implications. That analysis also continues. We're looking, for instance, at elemental carbon as a proxy for the emissions from the vessels and what impact that's having.

So the analysis and the collaboration with South Coast continues, obviously, the work to break the log jam that the administration and many, many others are working to work through, but no doubt, it is a example, front and center, in terms of the implications of combustion of

diesel, both from a regional air quality standpoint and a near source community focused air quality standpoint that the measures that we are moving forward on need to progress with haste.

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The other point, and it's another one that we have talked about, which is equally important is federal action. Many of the sources that we're talking about are federally preemptive sources to a substantial degree and our efforts, including the petitioning of EPA, in collaboration with many stakeholders, to secure commitments and action for tighter standards on marine vessels through EPA and the international bodies to set those standards, as well as aviation and locomotives are going to be critically important. So that summarizes my comments.

BOARD MEMBER KRACOV: Thank you, Mr. Corey.

Chair, I had a big long spiel to -- about this, but I'm just going to skip to the end. Really appreciate staff preparing this data on the emissions impact at the ports.

You know, the data I think is key to -- in holding the ports accountable and holding ourselves accountable to these efforts, but fundamentally to make sure that the ports get the message to clean up their operations. So please keep up with this data and thank you, Chair. Thank you, Mr. Corey, for letting me ask the question.

CHAIR RANDOLPH: Thank you very much.

2.2

Okay. The first item on the agenda is Item number 21-12-1, consideration of the proposed contract with UC Davis titled, "Understanding Travel Demand and Built Environment Factors to Optimize Increased ZEV Access in Underserved Communities".

If you wish to comment on this item, please click the raise hand button or dial start nine now. We will call on you when we get to the public comment portion of this item. This item is listed on the agenda to comply with Board approval requirements in Government Code section 1091, because two of our Board members are affiliated with UC Davis. Therefore, Board Members Berg and Sperling will abstain from the discussion and vote.

Mr. Corey, would you please summarize the item?

EXECUTIVE OFFICER COREY: Yes. Thank you, Chair.

This item is a proposed research contract that will help inform zero-emission vehicle policy to help meet

California's air quality, climate, and equity goals. The proposed project will examine mobility needs of underserved communities and how zero-emission vehicles can cost effectively meet this need. Policy recommendations may inform how zero-emission vehicles can best be integrated into underserved communities through related regulations and incentive programs. Approval by the Board

will authorize staff to put this contract in place.

That concludes my remarks.

2.2

CHAIR RANDOLPH: Okay. We will now hear from the public who raised their hand to speak on this time. Will the Board clerk please call the commenters?

BOARD CLERK ESTABROOK: Yes. Thank you, Chair. We currently have three commenters with their hands raised to speak on this contract with UC Davis. The first is Greg Chow. After Greg, we will have Janet Dietzkamei and then after Janet, we have a call-in user 1.

Greg, I have activated your microphone. You may -- let's see -- oh, it looks like that hand went down, so Janet let's try you.

Janet, you should be able to unmute yourself and begin.

JANET DIETZKAMEI: Yes. There was a delay for that. Good morning, Chair Randolph and Board members, staff. My -- I am Janet Dietzkamei and I live in Fresno City. I read this that it is focused on underserved communities. But having an electric vehicle, I would like to point out that part of this is travel demand and environment -- and environment factors. And, of course, I am very well aware, having an electric vehicle, that I am doing my part regarding environmental factors.

But what I like to -- I'd like to point out is if

one wants to use an electric vehicle, as one does a combustion engine vehicle, the problem is unlike gas stations, if you have a tendency to use one tight -- one gas -- let's say A, gas station A, and you're in a location where there are no gas station A's, you can go to gas station B. But the charging stations belong to different companies, therefore you have to be enrolled in the company that has the charging station. So you have -- you know, you can go to the web and see, yes, okay, the company I'm enrolled in has charging stations here, and here, and here, and here. But if they don't happen to have B in the location you are when you need to charge, that is something that can be a problem.

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I am in full support of providing underserved communities with electric vehicles. And the charging stations are very affordable. I charge my car for an hour, and it came -- no, it was two hours and it came to \$2. So it's essentially a dollar an hour to charge. And that would be very helpful for those who are in underserved communities, but the problem is those who live in apartments, and somehow apartment dwellers need to have access to a source of charging their vehicles. And so there -- as it is now, they would have to drive somewhere in the city to charge.

So I continue to bring focus on the fact that

those who are living in apartments are at a bit of a disadvantage to me, because I charge in my garage. So that is my focus, how do people in apartments charge their cars -- easily charge their cars?

Thank you.

2.2

BOARD CLERK ESTABROOK: Thank you.

Next, we have call-in user 1. Please state your name for the record at the beginning and then you may begin your comments.

RANJI GEORGE: Hello. My name is Ranji George. Can you hear me?

BOARD CLERK ESTABROOK: Yes, we can.

RANJI GEORGE: I am ex-employee of South Coast AQMD. We were the ones who helped start the zero-emission program at South Coast in the mid -- in the early 90s throughout the 90s. And then we went into hydrogen fuel cell vehicles.

My concern is a lot of the emphasis on CARB, even though its very -- I have to compliment CARB and CARB staff for moving towards ZEV technology in a strong way. Appreciate that. We need that. But unfortunately, whenever we talk on ZEV, almost 80 percent of the resources seems is still going towards electric batteries and not to hydrogen vehicles.

I hope in these research reports, whoever is

doing the research will also fairly address hydrogen station placement of hydrogen vehicles, and how we can work with the automobile and track management to expand the market share for hydrogen. And that's what's happening in China, Korea, South -- Japan and Europe. Hydrogen is playing a quite an important to role there. And I hope in ARB where this -- all this started in California, all this big talk about electric vehicles and hydrogen. We were the first in the country who made the push for it.

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So I hope hydrogen doesn't fall in the -- in the footnote section. It will be a very prominent part, because ultimately the one thing I'll be mentioning in other -- under other agenda items, is the battery recycling. You have a major prospect of addressing battery recycling after about 15, 20 years of this battery use. So hydrogen has very little of that recycling issues. There are some, but much less. So I hope the staff will give equal consideration for every dollar on -- spent on electric batteries you will spend on hydrogen. I will request that you do that.

Thank you. Appreciate the opportunity to share those comments.

BOARD CLERK ESTABROOK: Thank you.

Madam Chair, that concludes the commenters for

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the item.
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             CHAIR RANDOLPH: Thank you.
             I will not close the record on this agenda item.
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             Do I have a motion and a second to approve this
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    item and have staff proceed with executing this contract?
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             BOARD MEMBER RIORDAN: Madam Chair, I'd like to
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   move the approval of this item, 21-12-1.
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             BOARD MEMBER BALMES: Second.
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             CHAIR RANDOLPH: Clerk, would you please call the
   roll.
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             BOARD CLERK ESTABROOK: Yes.
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             Dr. Balmes?
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             BOARD MEMBER BALMES: Yes.
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             BOARD CLERK ESTABROOK: Mr. De La Torre?
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             BOARD MEMBER DE LA TORRE:
                                       Yes.
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             BOARD CLERK ESTABROOK: Mr. Eisenhut?
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             BOARD MEMBER EISENHUT: Yes.
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             BOARD CLERK ESTABROOK: Supervisor Fletcher?
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             BOARD MEMBER FLETCHER: Yes.
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             BOARD CLERK ESTABROOK: Senator Florez?
             Ms. Hurt?
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             BOARD MEMBER HURT: Aye.
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             BOARD CLERK ESTABROOK: Mr. Kracov?
             BOARD MEMBER KRACOV: Yes.
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             BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?
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BOARD MEMBER PACHECO-WERNER:
                                           Yes.
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             BOARD CLERK ESTABROOK: Ms. Riordan?
             BOARD MEMBER RIORDAN:
 3
                                    Aye.
             BOARD CLERK ESTABROOK:
                                      Supervisor Serna?
             BOARD MEMBER SERNA:
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                                 Aye.
             BOARD CLERK ESTABROOK: Professor Sperling?
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7
             BOARD MEMBER SPERLING: I'm recused from this --
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    recusing from this.
             BOARD CLERK ESTABROOK: Ms. Takvorian?
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             BOARD MEMBER TAKVORIAN: Aye.
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             BOARD CLERK ESTABROOK: Chair Randolph?
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             CHAIR RANDOLPH: Yes.
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             BOARD CLERK ESTABROOK: Madam Chair, the motion
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   passes.
             CHAIR RANDOLPH: All right.
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                                          Thank you.
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             The next item on the agenda is Item 21-12-2,
   preterm birth, low birth weight, childhood autism
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    Parkinson's disease, and Alzheimer's disease, and Air
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    Pollution, California studies.
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             We will consider this research contract with the
    University of California, Los Angeles. This research
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    contract is an important component of our ongoing work to
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    expand CARB's analysis of air pollution-related adverse
    health outcomes and provide more comprehensive information
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on the expected health benefits of CARB's regulations and

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programs.

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Mr. Corey, would you please summarize the item? EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

In April 2020, the Board adopted Resolution 20-13 directing CARB staff to develop new quantitative and qualitative approaches for health benefit assessment. In response to Board directive, this proposed study will help quantify additional California-specific health outcomes, such Alzheimer's disease, Parkinson's disease, and preterm birth associated with air pollution exposures and, where possible, their associated economic values.

This research will look at health effects in racial and ethnic subgroups as well as statewide average effects. The results of this research will improve the Board's understanding of public health impacts from air pollution and will be used to expand CARB's health analysis for its regulations and programs.

So approval by the Board will authorize staff to put this contract in place. That concludes my remarks.

CHAIR RANDOLPH: Thank you. We will now hear from the public who have raised their hands to speak on this item. Board Clerk, will you please call the commenters.

BOARD CLERK ESTABROOK: Yes, Chair. We have one person with their hand raised to speak on this proposed

contract with UCLA. That's Janet Dietzkamei. You may unmute yourself and begin your comment.

JANET DIETZKAMEI: Thank you. I would like to suggest that a focus be put on the San Joaquin Valley where we have the worst air pollution in the United States, where we have a population of people that is unable to protect themselves from the pollutants, especially in the summer when it is so very hot here and they have no air conditioning or no source of protection inside of their home from the pollution that we have.

We have everything. We have all the pollutants that are available. We have mobile sources. We have stationary sources. We have wildfires. We have everything that contributes to pollution. San Joaquin Valley is the ideal place to conduct this study. We have low birth -- preterm and low birth weight. We have children whose development physically and mentally is impeded by the air that they're breathing. This is the location to conduct this study, because it's right here. Everything that is needed in this study is right here. People suffering. People suffering from the worst air in the United States, children, the whole age group. I suggest this is the place to conduct that study.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

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Chair, that concludes the commenters -- oh, I'm
1
    sorry. We have one more commenter for this item, Suzanne
2
    Hume.
           Suzanne, you may unmute and begin.
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             Suzanne, you should have a prompt to -- there you
 4
5
    go.
             SUZANNE HUME: Thank you so much.
                                                 Thank you to
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7
    all of the important work happening at CARB.
                                                   My name is
8
    Suzanne Hume. I'm the educational director and founder of
9
    CleanerEarth4Kids. And your work is vital had life
    saving. Thank you so much. We're in full support of this
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    study.
             Thank you.
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             CHAIR RANDOLPH: Thank you.
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             Madam Chair, that concludes the commenters.
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             CHAIR RANDOLPH: All right. Thank you. I will
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    now close the record on this item.
             Do I have a motion and a second to approve this
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    contract?
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             BOARD MEMBER HURT: Move approval.
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             BOARD MEMBER BALMES:
                                   Second.
             CHAIR RANDOLPH: Clerk, would you please call the
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    roll.
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             BOARD CLERK ESTABROOK: Yes.
             Dr. Balmes?
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BOARD MEMBER BALMES: Yes.

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BOARD CLERK ESTABROOK: Mr. De La Torre?
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             BOARD MEMBER DE LA TORRE: Yes.
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             BOARD CLERK ESTABROOK: Mr. Eisenhut?
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             BOARD MEMBER EISENHUT: Yes.
             BOARD CLERK ESTABROOK: Supervisor Fletcher?
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             BOARD MEMBER FLETCHER: Yes.
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             BOARD CLERK ESTABROOK: Senator Florez?
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             BOARD MEMBER FLOREZ: Florez, aye.
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             BOARD CLERK ESTABROOK: Ms. Hurt?
             BOARD MEMBER HURT: Aye.
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             BOARD CLERK ESTABROOK: Mr. Kracov?
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             BOARD MEMBER KRACOV: Yes.
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             BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?
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             BOARD MEMBER PACHECO-WERNER: Yes.
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             BOARD CLERK ESTABROOK: Mrs. Riordan?
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16
             BOARD MEMBER RIORDAN: Aye.
             BOARD CLERK ESTABROOK: Supervisor Serna?
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             BOARD MEMBER SERNA:
                                 Aye.
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             BOARD CLERK ESTABROOK: Professor Sperling?
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             BOARD MEMBER SPERLING: Aye.
             BOARD CLERK ESTABROOK: Ms. Takvorian?
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             BOARD MEMBER TAKVORIAN: Aye.
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             BOARD CLERK ESTABROOK: Vice Chair Berg?
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             VICE CHAIR BERG: Aye.
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             BOARD CLERK ESTABROOK: Chair Randolph?
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CHAIR RANDOLPH: Yes.

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BOARD CLERK ESTABROOK: Madam Chair, the motion passes.

CHAIR RANDOLPH: Thank you.

The next item on the agenda is Item number 21-12-3, the 2019 Haagen-Smit Clean Air Awards. If you wish to comment on this item, please click the raise-hand button or dial star nine now. We will call on you when we get to the public comment portion of this item.

Since 2001, the Board has annually bestowed the distinguished Haagen-Smit Clean Air Awards to extraordinary individuals whose career accomplishments in air quality and climate change have been fundamental to the progress that we have achieved.

The awards are named in honor of Professor

Haagen-Smit because of his important contributions to air

pollution science and of his significance as our first

Board Chairman. Arie Haagen-Smit, a native of the

Netherlands, was a bio-organic chemistry professor at the

California Institute of Technology in Pasadena for 16

years studying natural products like rubber and pineapple.

In 1948, he embarked on air pollution research when we asked by the County of Los Angeles to investigate the chemical nature of what we now call smog. His research found that most of California's smog resulted

from photochemistry, when exhaust from motor vehicles and industrial facilities react with sunlight to create ozone. This breakthrough provided the scientific foundation for the development of California's and the nation's air pollution control programs.

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Leaving his plant studies behind, he continued working in the field of air pollution research and control and took the smog problem in Los Angeles on head on. He became CARB's first chairman in 1968. In 1973, in recognition of his contributions, Dr. Haagen-Smit received the National Medal of Science, this country's highest scientific honor. Dr. Haagen-Smit passed away in 1977, yet his legacy continues to inspire scientists and policymakers alike.

Over the last 19 years, more than 50 acclaimed scientists and policymakers have received the prestigious Haagen-Smit award for their contributions to clean air. Seven recipients are added to that list today. Due to the pandemic, the presentation of the awards to the 2019 winners was postponed, but today we are very pleased to be able to officially recognize the belated 2019 awards.

Mr. Corey, would please announce the winners?

EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

As you noted, I'm pleased to honor the recipients of the 2019 Haagen-Smit Clean Air Awards. The first

winner is Dr. Karl Taylor. Dr. Taylor's contributions both in building essential infrastructure to improve climate modeling and through his own far-reaching research exposing differential forcing effects of anthropogenic sulfate aerosols have helped make it possible for the climate science community to evaluate and improve climate modeling to distinguish human impacts on climate, and to estimate uncertainty in projections of future climate change. He's being honored in the Climate Change Science category.

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The second winner is Ms. Joy Williams, who is being recognized in the category of Community Service and Environmental Justice. Ms. Williams has devoted her career to empowering residents of disadvantaged communities to protect themselves and their environment from toxic pollutants. For more than 30 years, she has taught others how to harness the power of science, community, and advocacy to depend -- rather defend the right of all races, cultures, and income levels to fair and respectful treatment in the development and implementation of environmental laws and policies.

The next awardee is Janice E. Nolen. Ms. Nolen was committed -- was a committed educator and advocate for improving the respiratory health of all Americans by implementing and enforcing the Clean Air Act. The

creative force behind the American Lung Association's annual State of the Air Report for 20 years, she distilled complex monitoring data into simple air quality grades that clearly convey the health risks of local air pollution. Ms. Nolen also contributed to several important national health policy victories for her decades of effective leadership and for the real life improvements she helped make to air we all breathe, she's being honored.

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The fourth winner, Dr. Junji Cao, who is being honored in the category of International Leadership. His research on airborne particulates in Chinese cities has helped drive China's air quality programs improving the health of millions of people. For example, Dr. Cao conducted long-term analyses of ambient PM2.5 in China, establishing a national baseline against which control strategies can be evaluated. Yet still clearly early in his career, Dr. Cao has already coauthored hundreds of influential papers and mentored over 150 young scientists. Dr. Cao has also successfully transferred innovative technologies from basic research to field demonstrations of cost-effective solutions.

The next award recipient is Dr. Stephen O'
Andersen, who is being recognized in the category of
Environmental Policy. Dr. Andersen has devoted more than

40 years to protecting the ozone layer and climate. Beyond his central role in establishing the Montreal Protocol's initial protection for earth's stratospheric ozone layer, he demonstrated courage, foresight, tenacity in realizing that the treaty's potential to also control climate change emissions. He's also known for his optimism, fairness, and productivity inspiring countless others to solve important environmental problems.

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Next is Dr. William B. Demore. The elder statesman of the atmospheric chemistry, Dr. Demore's lifetime contribution cannot be overstated. His comprehensive knowledge of chemical kinetics and cool-headed scientific diplomacy were vital to the resolution of many important problems in analytical chemistry with high stakes for air quality management. He helped resolve many controversies among highly qualified scientists by providing impartial guidance in prioritizing data integrity and unbiased interpretation. His calm, steadying influence, and for his many substantive contributions to the atmospheric chemistry of ozone, CARB is honoring him with the award.

The final winner is Dr. Birks. Dr. Birks has advanced our understanding of the earth's atmosphere through more than 40 years of research, teaching, and technological innovation. His early work on the chemistry

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of chlorine helped unravel the complex processes of
1
    stratospheric ozone depletion. He is a co-developer of
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    the theory of nuclear winter and developed a range of
 3
    portable instruments that dramatically improve scientists'
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    capacity to measure and analyze atmospheric air quality.
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    For such dedicated service and achievements, CARB is
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    honored to bestow Dr. Birks with a Haagen-Smit Clean Air
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    Award this year.
             So with that, that concludes a lot of very
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    distinguished award recipients, Chair.
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             CHAIR RANDOLPH:
                              Thank you.
             Board Clerk, are there members of the public who
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    have raised their hands to speak on this item?
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             BOARD CLERK ESTABROOK: Yes. We have two
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BOARD CLERK ESTABROOK: Yes. We have two commenters with their hands raised to speak at this time. The first is Paula Forbis and the second is John Maynard.

Paula, I have activated your microphone. You can unmute and begin.

Paula, it looks like you're unmuted.

PAULA FORBIS: Okay. Great. Thank you. Can you hear me?

BOARD CLERK ESTABROOK: Yes.

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PAULA FORBIS: Hello. Yes. Great.

Good morning, Chair Randolph and Board members.

25 My name is Paula Forbis. And I am the Interim Air

Pollution Control Officer for the San Diego County APCD.

I just wanted to quickly congratulate Joy Williams on her receipt of the Haagen-Smit Award for Air Pollution

(inaudible) my career in air quality working with and learning from Joy at Environmental Health Coalition.

6 She's worked tirelessly for decades in communities
7 (inaudible) --

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BOARD CLERK ESTABROOK: Paula, it was really breaking up you. If I could try calling back in to the number that's posted on the screen that would -- that we might have a better chance there.

PAULA FORBIS: Okay. I'll give that a try.
BOARD CLERK ESTABROOK: Okay.

CHAIR RANDOLPH: Do we want to maybe Board member comments and then see if she -- does any Board member want to comment on the awards?

Board Member Takvorian.

BOARD MEMBER TAKVORIAN: Thank you very much.

And I'm sorry that Ms. Forbis was breaking up there. I
hope she's able to call back. I just wanted to add my
congratulations to all these extraordinary individuals. I
think they're all so very deserving, but as you might
guess, I do want to note briefly that we have our very
first environmental justice Haagen-Smit recipient. And
we're very proud that Joy Williams has received this

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award. After 30 plus years of dedicating her career to
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    environmental justice at the Environmental Health
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    Coalition. And she's just contributed her public health
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    and scientific knowledge. And she's one of those very
    special people who in empowering community members, she's
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    able to translate science into popular language and
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    popular education. And so she's very special, very
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    skilled, and very humble. And so I think we are all
    excited that we can celebrate her and all of the other
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    recipients today. So thank you so much.
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             CHAIR RANDOLPH: All right. Thank you.
             Any other Board comments?
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             Okay. Do we have Paula back?
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             BOARD CLERK ESTABROOK: I do not see a phone
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    number that has raise their hand. Paula, if you are -- if
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    you successfully called in on the phone, you should be
    able to dial star nine and that will raise your hand.
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             Oh, go ahead.
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             PAULA FORBIS: Can you hear me now?
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             BOARD CLERK ESTABROOK:
                                    Yes.
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PAULA FORBIS: I've unmuted, so hopefully...

Are you able to hear me now?

BOARD CLERK ESTABROOK: I am now. It cut out for

24 a moment there.

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PAULA FORBIS: Sorry. Thank you very much for

your patience. I really appreciate. And I just wanted to call in quickly and congratulate Joy Williams. My name is Paula Forbis. I'm the Interim Air Pollution Control Officer for San Diego County APCD.

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And Joy was nominated by our former APCO. And so I'm really honored to congratulate her on behalf of the District. I was fortunate to start my career working with her and learning from Joy at Environmental Health Coalition. She's worked tirelessly for decades in pursuit of environmental justice and air quality for our local communities. And her work is the embodiment of everything this award is designed to honor.

So I just wanted to thank the Air Resources Board for recognizing her incredible contributions to our communities and congratulate Joy on her achievement. Thank you.

BOARD CLERK ESTABROOK: Thank you, Paula.

We have one more commenter with their hand
raised. Janet Dietzkamei, you can unmute and begin.

JANET DIETZKAMEI: Thank you. I want to extend my deepest, deepest not just congratulations, but my deepest feelings regarding those who have put their dedication, and their energy, and their focus to helping us with our -- with air pollution illnesses. Their focus, their work has benefited so many people. And I also want

to thank CARB for their efforts at reducing the pollutants that are causing health problems to thousands, and thousands of people in this state.

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I myself have asthma and I just want to have -to tell you how so important this work is to those of us
who are ill from the air and who everybody, because all of
us are going to be affected -- are affected by the
pollutants in our air.

Thank you. Thank you. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Chair, that concludes the commenters.

CHAIR RANDOLPH: Okay. Thank you. That was an information item, so there's no need to close the record or take a vote. So unless any other Board members have comments, I think we will go to our next agenda item.

Okay. Agenda item 21-1-4 is the proposed fiscal year 2021-2022 funding plan for clean transportation incentives, accompanied by proposed Carl Moyer Program changes, agricultural burning incentives for combustion equipment, and the Climate Heat Impact Response Program.

If you wish to comment on this item, please click the raise-hand button or dial star nine now. We will call on you when we get to the public comment portion of this item.

The clean transportation incentives funding plan

is just one part of CARB's broad portfolio of projects that complement our planning and regulatory programs to reduce emissions and increase access to clean transportation. This year's investments represent a substantial contribution toward the acceleration of equitable deployment of zero-emission vehicles, or ZEVs, and is the first installment of a proposed \$3.9 billion multi-year ZEV package.

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The plan also builds on investments the State has been making over the past decade to support widescale deployment of ZEVs to meet targets set in Governor Newsom's Executive Order N-79-20. With zero-emission technologies becoming widely available, now is the time for California to double down on supporting equitable access to zero-emission options for priority communities.

This year, staff proposes to commit at least 60 percent of low carbon transportation investment benefit -- benefiting priority populations, a 10 percent increase over recent year commitments, and significantly higher than the 35 percent minimum set by the Legislature.

I'm also pleased to see significant funding going to transportation equity projects that partner with communities to help provide a broader range of transportation choices, reduced vehicle miles traveled, and help people get around without cars. We know we need

system level change and this plan has key elements that reinforce the positive direction our transportation agencies are setting towards walkable, bikeable, and transit-rich communities.

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In addition to clean transportation incentives, this year we are also discussing complementary changes to the Carl Moyer Program and two new programs on key priorities, the Agricultural Burning Incentive Program and the Climate Heat Impact Response Program, which we are calling CHIRP.

The alternatives to Agricultural Open Burning
Incentive Program will expand eligible equipment types to
allow combustion agricultural burning alternatives in the
San Joaquin Valley Agricultural Incentives Program
supported by \$180 million allocated by the Legislature.
And the CHIRP Program is in response to the proclamation
of a State of Emergency signed by Governor Newsom on July
30th which tasks CARB with mitigating excess emissions
occurring when the electric grid is strained by extreme
heat events, specifically when the California Independent
System Operator issues a grid warning or grid emergency
notice.

Mr. Corey, would you please introduce this item?

EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

Incentive programs are a critical part of CARB's

comprehensive strategy to accelerate the introduction of the cleanest mobile source technologies complementing our regulatory programs. These incentive provides -- these incentives provide important steps to accelerate the transformation of the transportation sector to zero tailpipe emissions powered by the lowest carbon energy sources and to support local governments as they increase transportation options beyond private cars.

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This year, the funding plans includes over 1.5 billion in incentives, which makes it our largest plan yet. These investments are designed to scale the ZEV market towards sustainability in the key vehicle segments ready for significant ramp up in commercial deployment. They support equity by increasing access to zero-emission vehicles and other transportation options for priority communities and low-income Californians and providing emission reductions in the communities most impacted by air pollution. They also provide critical support to communities to redesign and strengthen their transportation planning to give people more and better choices in not just private cars.

The proposed investments continue to build on commitments from previous budget cycles, while taking steps to shift from broad purchase incentives to more targeted strategies to support lower income consumers and

small fleets facing the greatest challenges.

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We expect this shift to accelerate in the coming years. The funding plan is only a portion of CARB's broader incentive portfolio, and today staff is making targeted changes to other incentive programs within that portfolio, as you noted, specifically the Carl Moyer Program and alternatives to Agricultural Open Burning Incentive Program in the San Joaquin Valley, and presenting a new program the Climate Heat Impact Response Program, or CHIRP.

The proposed actions taken on these items are necessary, so that we can begin to use the dollars appropriated in the State budget to benefit impacted communities. We've coordinated closely with the California Energy Commission and the Governor's Office of Business and Economic Development on the development of this plan, and want to thank Hannon Rasool of the Energy Commission and Tyson Eckerle of the Governor's Office of Business and Economic Development for joining us today to support the proposed funding plan.

I'll now ask Andrea Morgan of the Mobile Source Control Division to give the staff presentation.

Andrea.

(Thereupon a slide presentation.)

MSCD AIR RESOURCES ENGINEER MORGAN: Thank you,

Mr. Corey. Good morning, Chair Randolph and members of the Board. Today, we will be presenting the proposed fiscal year 2021-2022 funding plan for clean transportation incentives and targeted changes to related incentive programs.

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MSCD AIR RESOURCES ENGINEER MORGAN:

Specifically, today's presentation will cover four topics. After some short background, we will review staff's recommendations for the Funding Plan for Clean Transportation Incentives, our primary topic. Then, we will discuss targeted revisions to the Carl Moyer Program, Agricultural Burning Alternative Incentives for Combustion Equipment, and a new incentive program the Climate Heat Impact Response Program, known as CHIRP. All of these incentives program are related and help achieve common air quality, climate change, and equity goals, and they are being presented together today, so that we can make the critical changes needed to quickly put these funds to use benefiting communities.

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MSCD AIR RESOURCES ENGINEER MORGAN: To achieve its numerous climate change, air quality, ZEV deployments, and petroleum reduction goals, the State has adopted an aggressive multi-pronged strategy that uses incentives to

complement regulatory approaches. Additionally, incentives will play a pivotal role in accelerating the transition of fleets to zero emission in line with Governor Newsom's recent Executive Order.

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We have also given increasing attention to the role our investments play in promoting equity and racial justice. Several projects funded by the clean transportation incentives incorporate principles from the standards for equitable investments developed and shared with us by the Greenlining Institute.

Our incentives also act as a stimulus and support economic recovery. They have helped draw manufacturers of clean technology to open or expand operations, promoting economic growth and job creation within the State, and making zero-emission vehicles and the components the State's largest export. We have constantly reevaluated our projects and incorporated strategic changes to build on the successes of past investments and incorporate the lessons we have learned. This year, we are further enhancing our metrics and evaluation strategies in line with recommendations from the California State Auditor.

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MSCD AIR RESOURCES ENGINEER MORGAN: The incentives programs we are discussing today are part of the broader portfolio of funding that CARB administers to

improve air quality, enhance community protection, and reduce greenhouse gas emissions. CARB strives to maintain a balanced portfolio of available investments to meet the State's air quality and climate goals. While the Community Air Protection Program, FARMER, and the VW Mitigation Trust are not directly tied to today's item, we continue to closely coordinate with these programs to make sure the investments are complementary.

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Each of these programs have their own distinct goals that support the State's broader strategy. Not every program can fund every worthy technology.

Maintaining the integrity of program goals is essential to ensure the State achieves both immediate air quality benefits and that it supports the innovative technologies necessary to meet the State's vision of a zero-emission economy.

And outside of CARB, other federal, State, and local agencies have complementary funding sources as well. We coordinate with our sister agencies on these investment programs regularly.

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MSCD AIR RESOURCES ENGINEER MORGAN: The proposals we'll present today continue our focus on equity and introduce many new policies and efforts to further focus incentives on important populations, including

overburdened communities and small fleets and owner/operators. These are complemented by dedicated funds for outreach and we will continue to strengthen our outreach and community capacity-building efforts in the coming years.

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The programs also address both short-term and long-term needs by focusing limited State dollars in ways that drive ZEV technology developments and deployments, but also give local air districts greater flexibility to act on immediate and tailored issues, such as meeting federal air quality goals and addressing local community air protection concerns.

The proposal also takes a step back, looking beyond just vehicle replacements to the transportation system as a whole and incorporates new technologies and new systems in an integrated package. And now, we will tell you about this suite of programs informed by these efforts and the State budget supporting them.

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MSCD AIR RESOURCES ENGINEER MORGAN: This year's budget included the largest investments the State has made to date to support the acceleration of zero-emission vehicle deployments, improve air quality, and support an equitable transition to a cleaner more sustainable future. Today's presentation will cover over \$1.7 billion in

funding as listed on the screen. And while this is a sizable investment, it is only a portion of the funding that was appropriated to CARB for other programs, including FARMER, the Community Air Protection Program, and the broader Carl Moyer Program.

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MSCD AIR RESOURCES ENGINEER MORGAN: Moving on to our first and largest topic, the Funding Plan for Clean Transportation Incentives.

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MSCD AIR RESOURCES ENGINEER MORGAN: In addition to producing emission reductions and benefits for priority populations, the Clean Transportation Incentives have focused on technology advancement, in particular ensuring the technologies needed to meet the state's air quality and climate goals will be available at scale. Since CARB first allocated funds from AQIP 12 years ago, clean transportation technologies have seen tremendous advancements and our incentives have changed with them.

Previous years' investments, paired with regulations, have proven successful in advancing technology growth, reducing costs, and transforming the market. As these technologies have become more established and demand continues to grow, CARB is focusing investments on the zero-emission technologies needed to

meet our climate goals, and is continuing to shift to target incentives to small fleets and lower income consumers.

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For passenger vehicles, CARB has established income limits and MSRP caps ensuring that incentives are directed to those who need them most and not supporting the purchase of luxury vehicles, while still providing a variety of vehicle types and classes for consumers to choose from.

In the heavy-duty space, we're continuing to support the expansion of zero-emission technologies to more market segments, like off-road. Additionally, we're looking at the transportation sector as a whole and providing incentives to improve a range of clean mobility options, including active transportation and public transit.

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MSCD AIR RESOURCES ENGINEER MORGAN: One example of how the technology and our incentives have evolved is natural gas engine technology. The State has invested over \$1 billion in natural gas technologies since 2005, and, in part, due to its support through incentives and regulatory actions, natural gas is now a widely available option. The growth of the technology was, in fact, so significant, that last year the Board voted to graduate or

remove natural gas engines from our truck and bus incentive program, HVIP, so that HVIP could be focused on the next generation of zero-emission technologies that are ready for a significant ramp up in commercial deployment.

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While this funding plan is heavily focused on supporting zero-emission technologies in advance of upcoming regulations, other incentive programs within CARB's portfolio, such as the Carl Moyer Program, still provide support for cleaner combustion technologies, like natural gas and the Achates opposed piston engine, and we'll discuss changes to that program that -- to make it easier for the cleanest combustion technologies to access funds later today.

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MSCD AIR RESOURCES ENGINEER MORGAN: This year's budget represents the first installment of a multi-year ZEV package, which includes a total of \$3.9 billion to CARB, the California Energy Commission, the Governor's Office of Business and Economic Development, and the California State Transportation Agency. The investments in ZEVs and ZEV infrastructure build on those that the State has made over the past decade and provide the additional resources necessary to accelerate the ZEV transition in both the light- and heavy-duty sectors.

It will provide equity by increasing access to

ZEVs and clean transportation options for priority communities and low-income Californians, and emission reductions in the communities most impacted by pollution.

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For fiscal year 21-22, the appropriation to CARB includes just over \$1.5 billion from the sources listed on the slide. While the multi-year proposal allows staff to plan and strategize investments, funds will only be allocated after the Legislature acts on the respective years' budgets. As a result, only the fiscal year 21-22 appropriation is included in this year's funding plan.

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MSCD AIR RESOURCES ENGINEER MORGAN: To develop this plan, staff held a robust public process beginning in March. Staff held two public workshops, 18 public work group meetings, three targeted fleet focus groups, a community listening session, and numerous one-on-one discussions with interested stakeholders to develop the recommendations included in this funding plan.

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MSCD AIR RESOURCES ENGINEER MORGAN: These investments come at a critical time and are intended to spur the equitable deployment of the cleanest technologies across the State and will help provide stimulus and economic recovery after a challenging year. To help reach scale and see a more immediate return on investments, the

projects under consideration in most cases continue and build on existing projects that were envisioned as multi-year investments.

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Broad purchase incentives continue to play an important role in our investment portfolio, particularly as new technologies come to market and the Legislature has directed a substantial portion of this year's funding to these programs.

However, in this plan, CARB is also taking steps to continue to transition from broad purchase incentives to more targeted strategies that support low-income consumers and small fleets. CARB anticipates this shift will continue to accelerate in the coming years, helping create an equitable transition to a clean transportation future.

A pivotal part of this shift will be understanding if incentives are reaching their target audience and further understanding the benefits provided, so that we can refine our approach and modify our programs to have the greatest impact. This year's funding plan includes enhanced metrics and evaluation strategies in line with the recommendations of the California State Auditor's recent audit report, with a particular focus on socioeconomic benefits, including workforce training and job creation, and behavioral changes stemming from our

investments.

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MSCD AIR RESOURCES ENGINEER MORGAN: Looking at past years investments, over 50 percent of funding allocated through past funding plans has benefited low-income and disadvantaged communities, with over 60 innovative pilot projects serving or benefiting disadvantaged communities across the state.

This slide highlights just a few of the many examples of the diverse set of projects that have helped achieve these benefits, several of which will continue in this funding plan. From projects geared towards helping lower income households get into cleaner cars, to expanding transit, active mobility, and car sharing options, and projects that help reduce emissions in highly overburdened neighborhoods, like those located near ports, our incentives help achieve real benefits for communities and this plan continues that focus.

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MSCD AIR RESOURCES ENGINEER MORGAN: The investments proposed in this plan are suballocated into different categories in accordance with the Legislature's appropriations. The broad categories are shown on the slide here. For the Clean Vehicle Rebate Project, or CVRP, this year's budget includes an investment of \$525

million. This large up-front investment for CVRP is intended to last for three years.

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For clean transportation equity projects, this year's budget includes \$150 million, 75 million of which the State budget specified to be invested in Clean Cars 4 All.

In the heavy-duty space, the budget includes just over \$873 million. The budget specified how portions of this funding must be spent and we'll provide greater details on that later.

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MSCD AIR RESOURCES ENGINEER MORGAN: CARB's clean transportation equity and light-duty vehicle investments are aimed at supporting the long-term transformation of California's fleet and ensuring that this transformation occurs in an equitable manner. These investments include three complementary strategies, vehicle purchase incentives, clean mobility investments, and community capacity building investments.

These investments include targeted strategies to bring zero-emission and clean mobility options to overburdened communities and lower income households. The investments also support complementary innovative mobility strategies to reduce vehicle dependence and provide transportation options, such as walking, biking, and

public transportation.

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MSCD AIR RESOURCES ENGINEER MORGAN: In the vehicle purchase incentive category, staff are proposing investments to four projects. Consistent with legislative direction, Clean Cars 4 All will receive \$75 million.

This allocation will support opening the program in San Diego this year and staff are also proposing measures to prepare for a statewide expansion in the coming years.

Next, staff recommends allocating \$23.5 million to financing assistance and adopting a needs-based approach. Following legislative direction, \$10 million will be available for the Electric Bicycle Inventive Project, a new project this year, which will help support -- supports point of purchase incentives for electric bicycles.

And finally, as directed by the Legislature, a large up-front investment of \$515 million is going to CVRP. Staff is also recommending several changes to CVRP and Clean Cars 4 All, which I'll discuss next.

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MSCD AIR RESOURCES ENGINEER MORGAN: The \$515 million dollar investment in CVRP is intended to last three years as the program ramps down. In recent years, approximately 40 percent of CVRP rebates have benefited

priority populations, and staff's proposed changes to ramp down the program are designed to provide greater focus on lower income consumers.

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To facilitate this ramp down, staff has recommended a series of changes that will take effect as the State meets EV deployment targets. After one million EVs are sold in California, but no sooner than February 2022, staff proposes to lower the income cap for standard rebates and reduce the MSRP cap for smaller vehicles. After 1.25 million EVs are sold, but no sooner than February 2023, staff proposes to further decrease the income cap for standard rebates, remove plug-in hybrids from project eligibility, and reduce rebate amounts.

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MSCD AIR RESOURCES ENGINEER MORGAN: Clean Cars 4 All is also proposing several changes to help pro -- prepare the program for expansion statewide. Many of these changes will be made through changes to the underlying regulation through a separate public process, and the changes proposed in the funding plan would give the Executive Officer the discretion to immediately implement those changes once the rulemaking is complete, so that we're able to quickly expand the program.

Other proposed regulatory changes include offering air districts administering the Clean Cars 4 All

Program the flexibility to remove conventional hybrids from the eligible replacement vehicle types, and offering flexibility to lower the income eligibility requirements so the program can be more targeted to address communities' unique needs.

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Finally, we are also requesting that the Executive Officer be given discretion to increase incentive amounts to account for increases in costs associated with vehicles with adaptive equipment or to more broadly increase incentive amounts for the lowest income thresholds, if future market conditions necessitate such increases.

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MSCD AIR RESOURCES ENGINEER MORGAN: We recognize that the state's air quality, climate change, and equity issues can't be solved just by turning over new vehicles. We also need an equity-informed systems change. This next category of investments aims to do that through alternatives to car ownership and supporting efforts to reduce vehicle miles traveled through mechanisms such as car sharing and last mile alternatives.

Staff proposes to allocate \$10 million to the Clean Mobility Options Project to support the statewide Clean Mobility Options Voucher Pilot.

Next, staff recommends allocating \$25 million to

the Sustainable Transportation Equity Project and \$10 million to the Clean Mobility in Schools Project. For both of these projects, staff recommends using the investments to fund highly competitive applications that were received during the previous solicitations for project proposals.

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These three programs play a critical role and we hope to see continued growth in this important new area.

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MSCD AIR RESOURCES ENGINEER MORGAN: And for the community capacity building projects, staff recommends allocating \$5 million to support outreach, community needs assessments, technical assistance, and Access Clean California. Additionally, staff recommends allocating \$1.5 million to a new project allocation for workforce training and development, which will be used to support zero-emission training for dealerships and partnership with adult and vocational schools. These investments are critical to ensuring the clean transportation incentive projects are accessible to and meet the needs of the State's priority communities.

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MSCD AIR RESOURCES ENGINEER MORGAN: Moving on to heavy-duty investments. Staff recommends allocating the \$873 million for heavy-duty investments to four projects.

Staff recommends 80 million be allocated to fund heavy-duty demonstration and pilot projects, 40 million of which will be used to support CARB and CEC's joint Drayage Truck and Infrastructure Pilot and 40 million will be used for new off-road focused demonstration and pilot projects.

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Staff recommends that about \$570 million be allocated to our Clean Truck and Bus Voucher Project, known as HVIP. For the Clean Off-Road Equipment Voucher Incentive Project, or CORE, staff recommends and allocation of about \$195 million. Finally, for the Truck Loan Assistance Program, staff recommends that 28.64 million be allocated to help fleets on the margins that don't typically qualify for lending upgrade to cleaner or zero-emission trucks.

These allocations help support the rapidly growing availability of zero-emission trucks, buses, and off road equipment and prepare the market for upcoming regulations. To support these investments, staff are proposing several changes to HVIP and CORE.

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MSCD AIR RESOURCES ENGINEER MORGAN: For HVIP, staff is proposing a number of changes designed to start shifting the program to support the unique needs of small fleets and owner/operators, enhance protections for purchasers by ensuring support for maintenance and

repairs, and to support future regulations, such as the Advanced Clean Fleets Rule.

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The proposed changes include introducing a fleet size limits beginning in 2023. The Executive Officer will have the authority to increase the eligible fleet size for HVIP as smaller fleets are undersubscribed. Additionally, staff are proposing requiring that vehicles be ZEPCert certified in order to be eligible for HVIP vouchers, and revisions to existing disadvantaged community voucher enhancements to provide more focused support to the small fleets.

Additionally, this year, staff is proposing adding set-asides to HVIP. These would include set-asides for drayage trucks, transit buses, and school buses in line with the multi-year appropriation to support the deployment of 1,000 zero-emission drayage trucks, 1,000 zero-emission transit buses, and 1,000 zero-emission school buses.

Staff is also proposing a set-aside for a new pilot within HVIP, Innovative Small e-Fleets. This pilot would provide incentives for zero-emission trucks geared towards small truck fleets and independent owner operators. This pilot could employ innovative mechanisms, such as flexible leases, truck as a service, assistance with infrastructure, individual owner planning assistance,

and more.

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MSCD AIR RESOURCES ENGINEER MORGAN: And now
moving off-road. In 2017, the off-road sector made up
about 35 percent of the total statewide NOx emissions.
And staff expects that by 2022, off-road equipment will

replace on-road vehicles as the largest source of NOx

emissions at a statewide level.

To support the transition to zero-emission technologies in the off-road space, staff is proposing a robust allocation for CORE. The proposal will expand this successful program to include more equipment categories, such as small off-road equipment and zero-emission construction equipment. This will include a \$30 million set-aside for zero-emission small off-road equipment purchases by small California landscaping companies or sole proprietors following legislative direction. We recognize that the air districts have experience in making these investments and we are committed to developing the mechanics of implementation in partnership with them.

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MSCD AIR RESOURCES ENGINEER MORGAN: And finally, as we have in previous years, we are proposing several contingency measures to help keep projects running smoothly and without interruptions. These contingencies

are comparable to what we have included in past funding plans. Specifically, staff is requesting that the Board grant the Executive Officer authority to allocate a portion of future year's funds to first-come, first-served projects, and to allocate funds from next year's budget, once approved, to the current career in the event that funding runs out.

We will still come back to the Board next year after a full public process to allocate the majority of any future funding. Additionally, staff will utilize a transparent public work group process to help guide any adding or scaling back of funding levels, and making of technical or administrative changes.

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MSCD AIR RESOURCES ENGINEER MORGAN: That covers the highlights of the funding plan. Next, I will turn it over to my colleague Steven Toft to cover the proposals for related incentive programs.

Steven.

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MSCD AIR POLLUTION SPECIALIST TOFT: Thank you, Andrea.

Next, we will move on to the targeted changes proposed to the Carl Moyer guidelines to address the Legislature's \$45 million appropriation.

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MSCD AIR POLLUTION SPECIALIST TOFT: As you may know, the Moyer Program is a statewide emission reduction program which funds cleaner-than-required heavy-duty vehicle and equipment replacement for multiple categories, including on-road heavy-duty vehicles. Projects must meet a cost-effective -- effective listen -- excuse me. Projects must meet a cost-effectiveness limit based on the emissions reduced. The Budget Act of 2021, SB 129, provides \$45 million for air districts in severe or non -or extreme non-attainment to replace diesel vehicles with 0.02 NOx standard or cleaner heavy-duty vehicles until the end of fiscal year 2022 to 2023, after which the funding may still be spent to replace with zero-emission heavy-duty vehicles. This funding is in addition to the annual appropriation to the larger Moyer Program, which can be used for a variety of sources.

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Staff is proposing to focus this limited funding in the two extreme ozone non-attainment areas in the South Coast Air Quality Management District and the San Joaquin Valley Air Pollution Control District. Staff proposes to allocate funds proportionally to the eligible heavy-duty vehicle population within the districts, which comes to \$32.1 million for South Coast and \$12.9 million for San Joaquin.

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MSCD AIR POLLUTION SPECIALIST TOFT: To further support the \$45 million appropriation by the Legislature, staff is also proposing targeted revisions to establish optional cost-effectiveness limits for those on-road technologies that can attain at least the 0.02 NOx standard and zero-emission standard.

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This would increase the support offered to both small and large fleets for transitioning to these advanced and zero-emission technologies sooner, thus further reducing emissions statewide an in impacted communities.

Working closely with our air district counterparts, staff reviewed the incremental cost of these technologies and staff is proposing cost effectiveness limits for heavy-duty on-road vehicles meeting at least the certified 0.02 NOx standard and certified zero-emission vehicles as listed on the screen.

Staff also proposes to update the existing cost-effectiveness limits for other categories to account for inflation. The proposed increases represent approximately a ten percent increase from the current limits set in 2017.

While the changes proposed today are targeted towards the \$45 million budget appropriation, CARB plans to open Moyer up in 2022 to work through a broader set of potential on-road amendments and return to the Board by

the end of the year.

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MSCD AIR POLLUTION SPECIALIST TOFT: Next, I'll be focusing on the proposed agricultural burning incentive

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MSCD AIR POLLUTION SPECIALIST TOFT: In response to CARB Board direction, CARB and the San Joaquin Valley Air Pollution Control District have worked together closely to develop a strategy to phase out the open burning of agricultural material in the San Joaquin Valley by January 1st of 2025.

Since 2018, the District has implemented a highly successful Alternatives to Agricultural Open Burning Incentive Program, which has significantly improved valley farmers access to non-combustion alternatives to open burning, such as chipping, soil incorporation, and mulching. The Program has addressed 49,000 acres and 1.3 ton -- million tons worth of agricultural material to date, representing significant progress towards phasing out open burning. The incentive program is oversubscribed with more valley farmers wanting to access the program than there are funds to support.

This year, the State budget provided \$180 million for CARB to enhance the District's grant program, allowing

the District to offer large grants -- larger grants and pay for new pieces of chipping equipment to expand fleets in the valley and increase access to alternative services.

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The Legislature specified that the 2021 budget funds may only be used for incentives for non-combustion alternatives, unless CARB makes a finding in a public hearing based on clear and convincing evidence that such non-combustion alternatives are not available.

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MSCD AIR POLLUTION SPECIALIST TOFT: The District Incentive Program has greatly improved valley farmers' access to non-combustion alternatives and help accelerate the transition away from open burning. Valley agricultural operators have shown interest in these non-combustion alternatives, with the District already receiving over \$40 million worth of applications for the new funding of non-combustion alternative equipment.

However, even with the incentive program's successes, there are still challenges. In the short term, until chipping and related service companies can expand to meet the growing demand, there is an insufficient supply of equipment. We have heard this from stakeholders at CARB, and District hearings, and throughout the process of developing the phase-out strategy.

Stakeholders also testified that supply shortages

and inadequate access to alternative services are exacerbated for smaller agricultural operations since contractors may prioritize larger jobs. The District and CARB are actively addressing challenges to the adoption of non-combustion alternatives. However, CARB staff believe that there is a compelling need for the limited application of combustion alternatives, such as air curtain burners to help compensate for the insufficient supply of non-combustion alternative service equipment and to help address technological feasibility issues associated with non-combustion options for certain crop types, that I'll discuss in a moment.

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MSCD AIR POLLUTION SPECIALIST TOFT: Since the transition to near-complete phase-out of agricultural burning must happen rapidly by January 1st, 2025, all feasible non-stationary source agricultural burning alternatives that represent a significant air quality improvement over open burning should be as accessible as possible to valley growers. But the primary focus must be on non-combustion solutions in every application where they are available.

Combustion alternatives should be considered only after all viable non-combustion solutions have been exhausted. The grant between CARB and the District

requires the prioritization of non-combustion alternatives. The District will require justification for the use of combustion alternatives on a case-by-case basis and will also track and report to CARB on the use of each alternative. Allowing for this very limited use of combustion equipment will help prevent agricultural material from being landfilled and will significantly lower emissions compared to open burning.

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MSCD AIR POLLUTION SPECIALIST TOFT: In addition to the general capacity concerns described previously, there are technological feasibility issues specific to vineyard crops and other crops grown using wiring trellising. For crops grown using a wire support system such cordon- or spur-pruned vineyards. It's common for the crop to grow around the supporting wires over time. So as a result, crops grown using wires are often characterized as having embedded wire. Agricultural material with embedded wire can only be chipped using specialty equipment that is also in short supply and cannot easily be accessible to all valley growers.

Due to the technological feasibility issues specific to materials with embedded wire, only projects with these types of concerns should be eligible to receive State funding for combustion alternatives through the

District's Incentive Program.

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MSCD AIR POLLUTION SPECIALIST TOFT: Staff recommends the Board find that there is clear and convincing evidence that non-combustion alternatives are not available in the numbers needed to meet increasing demand, and that the targeted use of combustion alternatives would help meet that demand for crops grown with a wire support system. Staff also recommends the Board find that the District can use funds granted via this year's budget for a non-stationary combustion alternative to agricultural burning for crops grown with the wire support system, only when non-combustion alternatives have been eliminated as a viable option and documented accordingly.

Staff will report back to the Board on the use of State incentive funds for alternatives to agricultural burning including the breakdown of funds used for non-combustion and combustion alternatives, as part of the annual update to the Board on implementing the valley fine particulate matter, or PM2.5, State Implementation Plan.

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MSCD AIR POLLUTION SPECIALIST TOFT: Next, we're going to cover the Climate Heat Impact Response Program, or CHIRP.

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MSCD AIR POLLUTION SPECIALIST TOFT: On July 30th 2021, Governor Newsom signed an emergency proclamation to build grid resilience in response to extreme heat events across the state. The proclamation allows the State to take actions to reduce demand on the electric grid, as well as increase energy capacity during such events.

The proclamation requires utilities to report the amount and type of back-up power generated and power-generating facilities to report the amount of energy produced over -- above permitted limitations. The increase in emissions from these operations during CAISO-declared events has an impact on local communities. The proclamation directs CARB to develop and then promptly implement a State funded plan to mitigate the effects of these additional emissions.

It should be note that these CAISO events have been rare in recent history. As a October 31st, there are a handful of events in 2021, all occurring before the July 30th proclamation went into effect. These events, which are intended to increase supply and reduce demand on the grid in advance of anticipated increases in demand, are completely separate and distinct from Public Safety Power Shutoff events, where the utilities shut off power in anticipation of increased wildfire danger.

Staff is further assessing a very limited set of eligible emissions associated with the commissioning of new facilities in Yuba City and Roseville. The Executive Officer will work in partnership with other decision-makers to determine the appropriate mitigation under this plan, if needed.

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While CARB may not be requesting large-scale funding to implement CHIRP during 2021, the proclamation notes the continued importance of grid reliability programs in 2022. California is working hard to reduce grid emergencies, but they can still occur and this program is designed to mitigate the impacts when they do occur.

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MSCD AIR POLLUTION SPECIALIST TOFT: The core goals of the CHIRP Program are to:

Mitigate the emissions generated when CAISO projects an energy shortfall and issue a grid warning or grid emergency due to extreme heat events. This requires an understanding of the total energy shortfall and the sources that were utilized to address the shortfall;

Consult and engage affected communities to determine desired community-focused projects that yield long-term and sustainable benefits. CARB staff are proposing focused engagement with impacted communities,

local air districts, and other interested stakeholders through the project implementation process. The CARB portfolio already includes a large suite of project types that meet the objectives of this mitigation plan, and as we'll cover in a moment, the plan also allows for new projects to be proposed;

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Develop a program that is complementary to other incentive programs at CARB and across the state that is flexible should mitigation needs arise in the future.

It's imperative that we work in coordination with utilities and other State agencies to assure that our projects are not duplicative of their efforts;

And lastly, staff intend to provide transparency through regular updates to the public on project progress and outcomes.

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MSCD AIR POLLUTION SPECIALIST TOFT: This infographic shows the steps that CARB will take for mitigation. When an extreme weather event occurs and CAISO projects a shortfall in energy supply, it may issue a grid warning or a grid emergency. Under the proclamation, this shortfall could be addressed by: one, entities reducing their demand on the electric grid by using back-up generators; two, power plants operating above emissions limits to increase supply for the grid;

and three, ships at port using their own auxiliary engines instead of plugging into the grid.

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If this happens, CARB will determine the emissions impact from the technologies deployed during the event in consultation with air districts, the California Public Utilities Commission, the California Energy Commission, and the utilities themselves.

Based on the emissions produced, CARB will use a weighted cost effectiveness model of the emissions to determine the amount of funding needed for mitigation and request the funding from Department of Finance.

Finally, based on the impacted communities'
feedback, CARB plans to work with the affected communities
and the air districts to determine how the calculated
funds will be invested in the affected area to mitigate
the emissions caused by the extreme heat events and reduce
future impacts.

While there have been no CAISO events requiring mitigation since the proclamation was issued, this mitigation plan could be deployed in the future, if needed.

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MSCD AIR POLLUTION SPECIALIST TOFT: Potential project categories eligible under CHIRP can include any existing category in CARB's investment portfolio. These

include traditional scrap and replace projects, deployments of mobile power units, zero-emission backup generation, vehicle-to-grid technologies, and sustainable transportation and community focused mobility projects.

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Because CHIRP projects will be designed with community input an engagement, it is possible that a community may identify a need not currently addressed with project types in CARB's portfolio. For those cases, staff is requesting that the Board delegate authority to the CARB Executive Officer to approve new project categories not currently included in CARB's investment portfolio.

Prior to Executive Officer approval, CARB will conduct a public process to engage the community and stakeholders in the development of the project category. More details about CHIRP, including the mitigation plan, can be found on the CHIRP website.

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MSCD AIR POLLUTION SPECIALIST TOFT: I'll now make a few final points as I conclude our presentation.

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MSCD AIR POLLUTION SPECIALIST TOFT: The proposals presented today support the State's air quality, climate, and equity goals, and also help to build significant momentum to expand the market for clean vehicles and clean transportation options.

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MSCD AIR POLLUTION SPECIALIST TOFT: In conclusion, staff recommends that the Board approve the proposed funding plan, proposed Carl Moyer changes, and CHIRP mitigation plan, and delegate authority to the Executive Officer to approve CHIRP project categories.

Additionally, staff recommends the Board make the finding on non-combustion alternatives for agricultural burning previously described.

Thank you.

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I'd like to introduce our partners at the Governor's Office of Business and Economic Development and the California Energy Commission, who we are pleased to be joined by today.

I'd now like to turn it over to Tyson Eckerle of the Governor's Office of Business and Economic Development who make some brief remarks followed by Hannon Rasool of the California Energy Commission.

TYSON ECKERLE: Well, thank you. Thank you very much. It's great to be here. I really appreciate it. So I'm Tyson Eckerle. I'm the Deputy Director for Zero-Emission Vehicle Market Development at GO-Biz, the Governor's Office of Business and Economic Development, which is a mouthful, but that puts me in the center of a lot of the State agency actions. We have about 29 State

agencies active in the zero-emission vehicle market development plan.

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And I wanted to start just by stating the This investment plan really is a big deal. obvious. And the fact that you're considering this plan in this building, like the building this very existence, really points to a brighter future and it's built on a tremendous So it's -- I feel like it's so appropriate. almost poetic that you're considering the plan today, because if approved, this plan will be transformative. It's transformative in the drayage sector. It's transformative in transit, transformative for school buses. And it's also taking, you know, Clean Cars 4 All statewide. It increases access to new and used ZEVs and mobility, you know, really bringing help to those who need it most.

I really think the numbers in the plan will move the needle, you know, on air quality, but also on economic development and really helping to scale the market in an equitable way. And that scaling the market in an equitable way is really the primary goal we're after in our collective zero-emission vehicle market development strategy.

As you know, I think the ZEV strategy is organized around really the four pillars -- what we call

the four pillars of the ZEV market. It's vehicles, infrastructure, workforce, and end users. It's the idea being, we need all of those pillars to be in balance to really accelerate the market.

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And CARB really is serving as the lead entity -agency for both vehicles and end users. It's a really
important role to play. But I think if you remember one
word from my presentation today, I'd like it to be
"collaboration". And the plan really is deeply integrated
with the California Energy Commission in particular, who
serves as the lead for infrastructure along with their
counterparts in the Public Utilities Commission. That's
a -- and that integration is not just at the plan level,
but it's at the program level and the implementation level
as well, putting vehicles and infrastructure together.

You know, from my perspective, you know, I have a good overview of all the agency coordination and collaboration. I think the collaboration between CARB and the Energy Commission is particularly strong, you know, both at the leadership level and also the staff level for implementation. I think that's good for the market as a whole, because infrastructure and vehicles really go hand in hand. You can't have one without the other.

And so in closing, I just wanted to leave you with two thoughts. You know, first of all, it's a full

throated support of this plan and we're very excited and hope you adopt it today. And then the second one is really kind of a challenge for us all. And it's really focusing on that end user pillar, just making sure that we have a relentless focus on the end user, making it easy to pull complete projects together to accelerate the market.

And it's not just with the programs and plans, but it's like down to the implementation level. I think it will take all of us to get there. And I think this plan and its integration with the Energy Commission is really a tremendous step in that direction.

And so I look forward to working with you all on making this all happen. And with that, I wanted to hand it over to Hannon Rasool at the Energy Commission who is the Deputy Director of the Fuels and Transportation Division, which is also a mouthful.

And so thank you very much for your attention and for considering this plan today. Oh, and for the staff for pulling together an awesome plan. That was the key point.

(Laughter.)

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HANNON RASOOL: Great. Thank you, Tyson.

As Tyson mentioned, my name is Hannon Rasool.

I'm the Deputy Director of the Fuels and Transportation

Division at the California Energy Commission. Thank you

for the opportunity to comment on behalf of the CEC on the CARB 21-22 funding plan, and I'm very pleased to express the Energy Commission's support for this plan.

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The CEC and CARB work closely and collaboratively across all levels of the organization. In fact, the CEC approved our Clean Transportation Program plan earlier this week. And the investment plans complement one other on both vehicles and infrastructure. This collaboration on planning and on joint funding solicitations has been really strong. And this ensures that regulations, vehicle infrastructure investments, and grid planning are coordinated to allow for California to continue to be a national and global leader.

action. These historic funding levels are impactful. They support equity, they support regulations, and they support a necessary transition away from fossil fuels to benefit public health. And the CEC and CARB will continue to collaborate into the future. We want to transform the transportation industry for passenger vehicles and goods movement to zero emission. As already mentioned, together we will support the deployment of an additional 1,000 zero-emission drayage trucks to support port districts, warehouse districts, and goods movement. We'll also support one 1,000 zero-emission transit buses and 1,000

zero-emission school buses. And this really builds off the recent discussions we've had on a joint drayage truck solicitation that supported both electric and hydrogen drayage trucks, in terms of both vehicles and infrastructure by CARB and CEC.

CARB has been a steady and consistent voice in improving the air quality and health of Californians. And today's investments will continue that leadership and work. CEC and CARB will continue to coordinate to ensure that equitable vehicle adoption and equitable access to infrastructure work in concert to really meet the urgency before us.

The markets are ramping up and are ready to deploy vehicles and infrastructure. And I look forward to our continued partnership.

Thank you.

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BOARD CLERK ESTABROOK: And that concludes the staff presentation, Chair.

CHAIR RANDOLPH: All right. Thank you. Okay.

We will now hear from the public on this agenda item. We have an extensive list of commenters on this item. We also have many commenters on our later items this afternoon. So I am going to modify our time to speak from three minutes to two minutes. So commenters, you have two minutes to speak. And so, please feel free to be sort of

succinct and to the point, in terms of your advocacy. We would really appreciate that.

So clerk, I'll go ahead and have you call the commenters.

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BOARD CLERK ESTABROOK: Thank you. Our first three commenters will Bill Magavern, Alex Davis, and Matt Miyasato.

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

BILL MAGAVERN: Thank you very much. This is
Bill Magavern with the Coalition for Clean Air. And this
morning, I'll be addressing the heavy-duty, off-road, and
Moyer issues, and my colleague Chris Chavez will be
addressing equity, and CVRP, and CHIRP later on.

We urge the Board to approve this plan without delay to bring these needed investments to our disadvantaged and low-income communities and relieve the excessive air pollution that is burdening them. We appreciate the fact that the staff have run a fair process with many opportunities for public participation. These incentives will complement the regulatory programs that really are the foundation for cleaning up our air.

For medium- and heavy-duty vehicles, we think the fleet size limits and the innovative small fleets will be helpful in bringing the incentives to those who need them

the most. We're pleased to see an infusion of funds into CORE with the addition this year of funding for small off-road engines, for the small scale commercial landscapers. And we urge the Board to work with the districts and community-based organizations to make sure there's robust outreach to reach the landscapers who really are small in scale and need this help the most.

When it comes to the Moyer Program, we support the increases in the cost effectiveness limits and urge CARB to work with the districts and other parties to make further improvements to streamline the Moyer Program and bring this necessary cleanup to the districts that have the worst air pollution problems.

And in conclusion, again urge you to approve this plan, particularly because most of the funding will go to our disadvantaged and low-income communities who are burdened with the health problems that come from our excessive air pollution.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Alex Davis, you can unmute and begin.

ALEX DAVIS: Thank you. Good morning. My name is Alex Davis, Senior Manager of Government Relations with Metrolink, the Southern California Regional Rail Authority. I'd like to thank Chair Randolph, the CARB

Board, and staff for your support advancing zero-emission public transportation technologies. CARB's incentive programs are an essential part of accelerating technology development and ensuring commercial viability. We recognize that the fiscal year 2021-2022 funding plan includes resources for a variety of important transportation sectors and respectfully ask that CARB identify robust funding for passenger rail locomotives in future funding plans and across other CARB programs.

Metrolink stands ready to partner on pilots and demonstration projects for zero-emission locomotives.

These technologies directly support the State's goal to reduce emissions from the transportation sector in statewide vehicle miles traveled.

This opportunity to bring zero-emission technologies to the largest fleet of public passenger rail locomotives in the State will provide generational benefits, cleaner air, and enhanced mobility options for millions of Californians.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Matt Miyasato. And then after Matt, we will have Mike Tunnell, and Laurence Fromm, and Nick Chiappe.

Matt, you can unmute and begin

DR. MATT MIYASATO: Hi. Thank you. Good morning, Chairman Randolph and members of the Board. I am Dr. Matt Miyasato, the Chief Technologist at the South Coast Air Quality Management District. And firstly, let me welcome you to the South Coast. So it's good that you're in Riverside and in the Inland Empire.

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I'm commenting on the Moyer changes reflected in the spending plan. And although we support the cost effectiveness limit proposal — it's a step in the right direction for sure — it's simply not enough to make the Moyer Program effective for on-road Class 8 heavy-duty trucks.

Now, we've submitted a detailed comment letter on fixes. And to be frank, we've been working through CAPCOA for the last two years to implement changes with your staff, but we have -- only now see that it's one change being reflected in the proposal. So we think it's incredibly important that the Board really get involved. And so we're urging the Board to reinstitute the advisory committee that was proposed, that would have Vice Chair Berg on it, to really look at all of the changes that could make the program, and for that matter all of the on-road incentives programs, more effective at bringing emission reductions. This was a commitment that was made by the Board, I believe it was last year, during the HVIP

discussions, but it never came to fruition.

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So we think it's incredibly important that the committee be comprised of not only Vice Chair Berg, but the three big air districts. So please include Board Members Kracov, Pacheco-Werner, and Board Member Hurt, so that the three districts -- the large districts are included and represented, but also the two that are facing extreme nonattainment issues.

And then finally, let me just comment that the incentive programs are critically important. We need those to accelerate diesel replacements. So let's work together to make sure that zero-emission technologies are funded, but also non-zero technologies that provide emissions benefits and health benefits to the communities.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Nick Chiappe, I noticed that your hand was lowered. If you would like to comment on this item, please do raise your hand again in Zoom.

Next will be Mike Tunnell.

Mike, you can unmute and begin.

MIKE TUNNELL: Good morning, Chair Randolph and members of the Board. My name is Mike Tunnel. I am with the American Trucking Association, the largest national trade association for the trucking industry. I am here to

express our concerns over the fleet size limits which propose to make private fleets ineligible for HVIP, if they have more than 100 trucks in 2023 and more than 50 trucks in 2024.

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This is an important time as California seeks to transform its commercial vehicle fleet. Fleets are in the initial stages of acquiring and evaluating these new technologies, technologies that are expensive and largely unproven. The HVIP Program provides valuable financial assistance with the acquisition of these technologies. The large and mid-sized fleets that will be excluded are the ones leading the way to understand the capabilities of these technologies and sharing this knowledge among the industry.

Now, is not the time for the State to eliminate its financial partnership with these fleets. We urge the Board to reconsider the fleet size limits and instead pursue other options as discussed in our coalition letter to ensure small fleets have equitable access to funding without completely excluding large and mid-sized fleets.

Thank you for your time.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker is going to be Laurence Fromm.

Laurence, we have your slides, and so we will protect them here on the screen. And then for the timer, I will let

you know when you have 30 seconds left and then when the time is up. And you should be able to unmute and begin.

(Thereupon a slide presentation.)

LAURENCE FROMM: Great. I can now. Thank you.

Hi. I'm Larry Fromm with Achates Power. We're a technology development company in San Diego. And we've developed an extremely low emissions diesel engine for large line haul trucks. We're also developing a zero emissions hydrogen version of the engine. We're part of a team lead by CALSTART that was funded by CARB several years ago to demonstrate this engine. So our partners are shown on this slide and notably include South Coast, San Joaquin Valley, and Sacramento Metro Air Districts.

Next slide, please.

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LAURENCE FROMM: The demonstration project you funded is nearing successful completion. Our engines is in fleet service in California as we speak. It's the only on-road diesel engine that meets CARB's fully phased-in ultra low-NOx standards and also reduces CO2 by 10 percent or more.

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LAURENCE FROM: This is accomplished with existing conventional underfloor aftertreatment systems.

No new or unproven emission control technologies are

required. It means this ultra low emissions engine won't cost any more than today's diesel engines.

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LAURENCE FROMM: For many urban truck segments, zero emissions are right around the corner, but one exception is interstate long haul trucking that contributes about half of the on-road truck emissions in California. Zero-emissions line haul truck technology lags and will be dependent on nationwide highway refueling network, which does not currently exist, thus zero-emission line haul trucking will be transitioning for several decades and its emission benefits will be slower to be realized.

Our engine can fill this emission gap, as Matt noted, by quickly capturing a significant share of the long haul market, because its low cost drop-in replacement engine will be cheaper to operate, because its -- of its better efficiency.

With all the benefits of the engine, I -- you may wonder with we need more CARB help. The answer is we still need to optimize hardware and software and produce a pilot engine that comes close to a commercial version. This is needed to convince an engine manufacturer to invest hundreds of millions of dollars to produce the engine in volume. And the engine producer will want to

know that CARB sees environmental value in the engine. We still need help.

Next slide, please.

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LAURENCE FROMM: We're disappointed that the draft funding plan would preclude us from competing for a portion of this year's pilot funding. All we are asking today is that you direct staff to incorporate in the final plan, the language shown on this slide, which would allow us to compete for the funding.

Thank you.

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BOARD CLERK ESTABROOK: And that concludes -- perfect. That concludes your time. Thank you.

Our next three speakers will be Tom Van Heeke,
Jhana Valentine, and Tom Swenson. Tom, I have activated
your microphone. You can unmute and begin.

TOM VAN HEEKE: Good morning. Thanks, Chair and members of the Board for the opportunity to speak today.

My name is Tom Van Heeke, Senior Environmental Policy

Advisor at Rivian, an independent California-based EV-only manufacturer building electric adventure vehicles including our R1T pickup now in full production.

California and the Air Resources Board continue to demonstrate leadership in transportation electrification that is recognized across the country and

around the world. Rivian applauds the State's commitment to investing billions in accelerating an EV transition and I want to acknowledge the hard work of staff in developing this plan.

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Rivian wishes to make a few comments on the plan as proposed. First, Rivian broadly supports tiering the CVRP program. However, we recommend CARB establish a third category for medium-duty vehicles with a price cap of \$80,000 to include passenger vehicles and trucks that do not qualify for HVIP, CVRP, or the clean fuel reward due to price, vehicle weight rating, and personal use restrictions in those existing programs.

Number two, Rivian welcomes CARB making strategic choices in which advance vehicle technologies to incentivize, but we believe you can go farther than proposed. Specifically, we believe the PHEV phaseout should begin in 2022. And that the time is right to end bonus treatment for fuel cell vehicles, including higher rebates and exemption from income caps to better focus program resources on the proven technology and benefits of BEVs.

Number three, we're concerned about proposed fleet sized limits for HVIP and encourage consideration of alternatives. These could include a step down in voucher size for larger fleets, rather than eliminating them

entirely. In our view, smaller vouchers but more of them is preferably versus none at all.

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Thanks again for this opportunity and your continued leadership in this. We've submitted more detailed comments in writing and look forward to the rest of the process.

BOARD CLERK ESTABROOK: Thank you.

Jhana valentine, you may unmute and begin.

JHANA VALENTINE: Good morning, Chair Randolph, Board members and CARB staff. My name is Jhana Valentine, Program Director for the Clean Vehicle Assistance Program. On behalf of Beneficial State Foundation, the administer of the statewide financing assistance program, I want to thank CARB staff for all of their dedicated work putting together the proposed fiscal year 2021-2022 funding plan for Clean Transportation Incentives.

We support the proposal and urge the Board to approve the plan. We're particularly enthusiastic about how staff have prioritized equity in the financing assistance program's design by recommending a needs-based processing approach. This will ensure limited funding reaches priority communities.

We appreciate the opportunities thus far to work closely with CARB staff to growing the Clean Vehicle
Assistance Program into an effective statewide grant and

loan program that has helped over 4,400 lower income families make the switch to clean vehicles. We hope to continue working closely with CARB staff, other program administrators, and community members to advance equity in clean transportation.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Tom Swenson. After Tom will be Michael Cacciotti and then Patrick Guild.

And Tom, I have activated your microphone. You can unmute and begin.

TOM SWENSON: All right. Thank you. Good morning. This is Tom Swenson, Business Development Manager with Cummins. Matt Miyasato summarized the issue on the Carl Moyer changes quite well, so I won't repeat what he said, but I just wanted to reinforce that the changes that are in front of you today are a great first step, but there are also a number of other changes that are necessary to get fleets to actually participate.

We need to increase the cap threshold for per vehicle incentives. The cost effectiveness threshold is what's before you today, but we're not sure if that goes quite far enough, and so we'd like to continue to work with staff on what the corrective amount should be.

We still feel strongly that the model year

restriction contained in the program currently will limit fleet participation. And then we're looking -- we'd like for there to be some consideration for an extension associated with manufacturing delays. I think everyone is pretty aware of the supply chain constraints that are in the marketplace right now, and we've got sort of a confluence of that plus strong truck demand, as well as fleet turnover requirements at the end of 2022.

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And so we would propose that if there's an order placed within a certain time frame that someone is allowed to run their existing truck until the new one arrives. I wanted to also reinforce that the Carl Moyer Program has been wonderful and has worked for many, many years. And we're looking at I think it's really -- relatively small adjustments to the on-road portion, so that we can deliver emission reductions to our communities immediately.

So with that, thank you very much.

BOARD CLERK ESTABROOK: Thank you. Michael Cacciotti, you can unmute and begin.

SOUTH PASADENA MAYOR PRO TEM MICHAEL CACCIOTTI:

Thank you. Good morning, Chair, Board members, and staff. My name is Michael Cacciotti, Mayor Pro Tem of the Historic City of South Pasadena. That's the first city in the United States to be AGZA Green Zone Certified by performing all of our city's lawn maintenance, our

sports fields, parks, et cetera with battery electric lawn equipment. I'm also a Board member of the South Coast AQMD actively involved with our air district's commercial and residential lawn and garden incentive programs for over a dozen years. I'm commenting on the \$30 million to CARB to create a program or utilize an existing program to provide incentives to professional landscaping services in California to small businesses sole proprietors to purchase the zero-emission off-road equipment.

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I hope to just have some clarification by staff later on or the Board on the language specifically quoting, "Administered through CORE and with air district implementation, coordination, given historic air district lawn and garden program". We need to ensure that these air districts, which have been administering and implementing these very specialized incentives program to a difficult-to-reach audience, will continue to do so with cooperation of CARB.

Our air district has adopted successful and specialized outreach, education, and demonstration programs to independent and small business gardeners. So successful, we just recently exhausted \$3 million and targeted airshed grant funds, so much so that we've got hundreds of gardeners now who want to access the program, but there's no money left in our commercial incentive

program.

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Also, our city and other cities in the basin have passed ordinances banning gas-powered leaf blowers later this year. We need to assist these gardeners soon, the mom and pop gardeners, who now must comply with these ordinances, not only with financial assistance, but outreach, education, boots on the ground, and demonstration programs to successfully implement these programs with CARB. Thank you so much.

BOARD CLERK ESTABROOK: Thank you.

BOARD MEMBER KRACOV: Chair

CHAIR RANDOLPH: Go ahead.

BOARD MEMBER KRACOV: This is Board Member

Kracov. I just wanted to acknowledge my fellow Board

members from the South Coast, Mayor Pro Tem Cacciotti

there from South Pasadena who truly is an evangelist in

this category of the cleaner landscaping equipment. Thank

you for participating, Board member.

CHAIR RANDOLPH: I'm going to take this moment to interrupt with a bit of a process thing, which is I'm going to ask those of you who would like to speak, but haven't signed up yet in the queue or raised your hand in the queue, to go ahead and raise your hand now. And we're going to close the queue in about five minutes.

Okay. Thanks, everyone.

BOARD CLERK ESTABROOK: Okay. And our next three commenters will be Patrick Guild, Anthony Bento, and then a phone number ending in 079. Patrick, I have activated your microphone. You can unmute and begin.

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PATRICK GUILD: Thank you. Good morning and thank you to the Board and staff for the opportunity to comment today. My name is Patrick Guild. I am the Chief Operating Officer at Breathe California, Sacramento Region.

I'm commenting today to voice our support for the adoption of the Clean Transportation Incentives Funding Plan to improve access to clean and reliable transportation in all communities in our State of California, especially those that have been historically underserved. Specifically, we're focused on the Clean Mobility in Schools Pilot Project and would like to explicitly urge CARB to fund the next highest application for the fiscal year 2018-2019 Clean Mobility in Schools Solicitation with the remaining funding.

Breathe greatly supports the mission of the California Air Resources Board to promote and protect public health, welfare, and ecological resources and believe they can continue their mission by awarding funding to the next highest ranked application.

As a not-for-profit primarily focused on air

quality and lung health, Breathe strong endorses the expansion of electric vehicles for student transportation as a means of reducing harmful emissions, improving air quality, and mitigating climate change.

Thank you for considering and again for the opportunity to comment.

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BOARD CLERK ESTABROOK: Thank you.

Anthony Bento you can unmute and begin.

ANTHONY BENTO: Thank you for the opportunity to speak today. My name is Anthony Bento and I'm the Director of Legal and Regulatory Affairs at the California New Car Dealers Association. We represent the state's roughly 1,400 franchise new car dealers. I'm commenting today specifically on the proposed changes to CVRP.

CVRP is an important incentive to encourage the purchase of new zero-emission vehicles by California consumers. However, CVRP is undermined by its complexity, particularly with respect to eligibility. This complexity discourages dealership employees from talking about CVRP to prospective customers and it reduces the number of eligible customers from claiming program benefits.

CNCDA is concerned that the proposed changes to CVRP further undermine the program by creating and unnecessary amount of additional complexity, in particular, the two-phase reductions in income caps in

vehicle eligibility create needless confusion.

We ask that the Board pause adoption of these proposed changes to CVRP to listen to stakeholder voices, to ensure that any changes to CVRP are as simple as possible to minimize complexity and further the Board and the State's air quality, climate, and equity goals.

Thank you very much.

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BOARD CLERK ESTABROOK: Thank you.

Our next speakers will be Paula Forbis, Julia Levin, and then Christopher Chavez.

Paula, you can unmute and begin.

PAULA FORBIS: Thank you. Good morning, Chair Randolph, Board members, and CARB staff. My name is Paula Forbis. I'm the Interim Air Pollution Control Officer for the San Diego County APCD.

And I wanted to express APCD's support and gratitude for staff's recommended funding plan for the Clean Transportation Incentives. The plan includes \$5 million in funding for the San Diego APCD to launch its Clean Cars 4 All Program, which will help the families and communities most impacted by air pollution and economic hardship, including those in our AB 617 Portside community to purchase newer, more reliable and energy efficient advanced technology vehicles, while also increasing access to transit and active transportation options.

The District has an approved implementation plan from CARB for the program, and staff will be prepared to implement the program as soon as possible after a grant agreement is in place. We are excited to get this program moving forward and we thank Board Member Fletcher for his work with CARB and our prior District Board to bring the program to San Diego. And we thank the Air Resources Board for this opportunity.

Thank you very much.

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BOARD CLERK ESTABROOK: Thank you.

Julia Levin, you can unmute and begin.

JULIA LEVIN: Good morning. Julie Levin with the Bioenergy Association of California.

I wanted to reiterate two of the goals that

Executive Officer Corey began with with this whole package
of proposals, the need to focus on priority populations,
and the need to focus on the lowest carbon energy sources,
and both of those lead to the same goal, which is we need
to get diesel trucks off the road as quickly as possible
and replace them with vehicles that can run on
carbon-negative fuels. And that means fuels from organic
waste, biogas, renewable hydrogen, and electricity.

So we strongly support the staff proposal to make revisions to the Carl Moyer Program, which will help to

get diesel trucks off the road quickly. And we urge the staff to move forward quickly on that -- on those proposed changes.

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We also urge the Air Board to invest more in hydrogen fueling infrastructure. It seems clear that hydrogen from renewable sources is going to be the zero-emission option for the heaviest duty trucks. We have members that are producing hydrogen or developing projects to produce hydrogen from diverter organic waste, dairy, and agricultural waste, and forest waste, but the infrastructure isn't there to fuel heavy-duty trucks, so we've got to start making those investments now, if we really want to move zero-emission heavy-duty trucks in the long term.

Finally, I'd like to bring up the agricultural burning item. We strongly supported the Air Board's plan to phase out open burning. We also supported the \$180 million for alternatives to open burning and we support the exclusion of combustion conversion technologies. But the problem with the current year funding is it also excludes stationary sources, which means non-combustion bioenergy that can convert ag waste into carbon-negative fuels to replace diesel in heavy-duty trucks and back-up generators.

We hope that in this next year's budget, the

exclusion of stationary sources will be dropped, so that we can produce carbon-negative fuels, instead of open burning of agricultural waste.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

And then before we get to Christopher, I will announce that the five minutes has elapsed and so we will close the sign-up list.

After Christopher, we will have Alan Abbs, Janet Dietzkamei, and then David Yow.

Christopher, you can unmute yourself and begin. Christopher Chavez, you can unmute and begin.

CHRISTOPHER CHAVEZ: Yes. Good morning, Board members. My name is Chris Chavez and I'm the Deputy Policy Director at Coalition for Clean Air. I want to thank CARB staff for their hard work on in this thorough process for the funding plan. We, along with the Charge Ahead California campaign and a broad coalition of 14 organizations support the proposed funding plan. Any delay in approving the funding plan today would disrupt these important incentive programs and hurt low income and disadvantaged communities the most.

For CVRP we support CARB decreasing the MSRP cap as well as the income cap for standard rebate eligibility based on sales benchmarks. This will help target the

program to help those who need the rebate the most and send a clear market signal in favor of affordable vehicles.

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For Clean Cars 4 All, we support CARB's intent to expand the program statewide, but note that funding for CC4A expansion should be on top of existing funding. We also ask that the Board direct staff to put into grant agreements with air districts that Clean Cars 4 All awards are not taxable, just like how CVRP is not taxable.

We also support phasing out conventional hybrids from the CC4A program as well as improving uptake and mobility options. We also support funding for clean mobility option programs as well as the STEP Program, and urge CARB to invest in these programs as needed or -- and to increase the investment in these programs.

Finally and specific to Coalition for clean air, we urge CARB to use the CHIRP Program to deploy clean, back-up, and renewable energy technologies. We also urge CARB to require excess polluters at the ports to pay into a fund to repair the damage done to communities during energy emergencies.

Ultimately, however, we need to avoid situations where we'd have to disregard clean air protections in the first place. This means making sure that we're taking the steps today to reduce pollution from the ports and other

pollution sources that affect our most vulnerable communities.

Thank you for your time.

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BOARD CLERK ESTABROOK: Thank you. Alan Abbs, you can unmute and begin

ALAN ABBS: Good morning, Chair Randolph and members the Board. My name is Alan Abbs with the Bay Area Air District. I'm here to speak in strong support of the staff proposals and offer some additional advice and requests. There are -- there are many positive changes being proposed to the guidelines for grant administration by your staff today, but we echo the comments of the South Coast AQMD and encourage you to reestablish the Grants Advisory Committee, formerly led by Vice Chair Berg to oversee a process to work with stakeholders to make necessary changes to many of the incentive programs.

This will ensure we can achieve timely and cost effective emission reductions from all equipment categories in the most efficient way possible.

On Clean Cars 4 All, the District is very supportive of the staff proposal that allows the Executive Officer to make future changes to vehicle types eligible for incentive funding.

On the CHIRP, while we understand that need for

this program, we are not supportive of its underlying concept. This program attempts to pay for additional pollution that is being allowed to happen when diesel back-up and auxiliary generators are run to support the grids as a result of the power shortages in the state.

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Unfortunately, much of the emissions impact from these engines have the potential to occur in already overburdened communities of color, such as those that surround the Port of Oakland and the ports of LA and Long Beach. This is wrong and we strongly believe the State needs to take a look at ending this policy rather than seeking to pay for damages to communities that cannot afford this increased pollution burden.

Finally, on the lawn and garden program, the Bay Area Air District strongly supports and welcomes long overdue funding for the replacement of this equipment and hope that what you approve today allows ARB staff to give air districts the right of first refusal relative to administering this funding in our areas. As South Coast Board member Cacciotti observed, it's unclear whether the staff proposal currently provides for air districts to administer future lawn and garden funding. And we hope that this is cleared up today.

Thank you for the opportunity to comment.

BOARD CLERK ESTABROOK: Thank you.

Janet Dietzkamei, you may unmute yourself and begin.

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JANET DIETZKAMEI: Thank you. Thank you for these considerations. Wintertime in the San Joaquin Valley results in suffering from an inversion, pushing pollution down into the San Joaquin Valley bowl, which is at low altitude and surrounded by mountains.

We have had many days with monitors reading at unhealthy for sensitive groups. PM2.5 restrictions on things such as agricultural burning are critical for reducing pollution in the San Joaquin Valley. I echo prior speakers supporting fast chargers and other charging infrastructure for electric vehicles. Knowing that there is a way that you can - we'll put this in quotes - "refuel" on a long trip is a motivator for people getting electric vehicles. I would like to point out electric vehicles are low in maintenance.

And regarding walking, bicycling, taking buses, that's not an option for me or those of us in the San Joaquin Valley with respiratory diseases, because our air does not support being out in the air for extended long periods of time at all times of the year. As I say, right now, we have had a lot of unhealthy for sensitive group monitor readings and I'm unable to go out. And most of the wintertime that's the case for me.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be David Yow. After David, will be Tung Le, Nicole Rice, and Chris Shimoda.

David, you can unmute and begin.

DAVID YOW: Thank you, Chair and Board members.

I'm David Yow with the Port of San Diego. Good morning.

I'd like to start by thanking each of you for your

leadership, especially Chair Randolph in bringing forward

a plan today that does help meet some of the challenges in

front of us. Now, as you approve new funding, we'd

encourage you to take it one step further, and keep

looking for ways to enhance the effectiveness of the

programs you're funding and help these funds go farther.

The issue isn't just how much money you have, but how you use it.

So looking at it through the lends of funding equity, we see the limitations of incentive programs and narrow grant solicitations. I think that that shows the need for wider distribution of funds to avoid leaving others behind. The Port of San Diego may not be the biggest port, but we certainly are hungry. So we would ask CARB to look at additional ways to update these traditional approaches with flexibility and inclusivity.

Grant funding opportunities should fit unique

needs and operational profiles of smaller ports like San Diego, so that our communities can participate in what you're making available today. And I'm not just talking about, you know, one-off demonstration projects, but equitable access to funding for commercial scale technology that we can use to meet the air quality goals.

Last month, as you know, thank you, CARB approved Portside communities' AB 617 CERP, which calls for flexibility in mobile source funding, such as, and here's the quote, "Modified cost effectiveness limits for zero-emission Moyer-type projects, eligibility for new purchase without scrappage requirements, eligibility for supporting infrastructure", end quote.

So we'd just urge you to work with our port, others, to address specific funding and equities to slow our progress and have a letter to share with you today with additional information. There's a lot of work to do and we are thankful that CARB is our partner.

Thank you again.

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BOARD CLERK ESTABROOK: Thank you.

Tung Le, you can unmute and begin.

TUNG LE: Good morning, Chair Randolph and Board members. My name is Tung Le and I am the Executive Director of the California Air Pollution Control Officers Association, or CAPCOA.

CAPCOA is very supportive of the significant investment in programs to reduce emissions being proposed today. In addition to our broad support of the plan, there are two comments I'd like to offer.

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Firstly, CAPCOA has worked very closely with staff to revise Carl Moyer Program guidelines to address issues that prevent the program from operating as effectively as it could to reduce emissions from mobile sources. And we are very supportive of CARB staff's proposal to make revisions to the cost effectiveness limits for advanced and zero-emission on-road projects.

We ask that you approve staff's proposal and we look forward to continuing to work with them to implement the needed additional changes to the guidelines as expeditiously as possible to ensure all opportunities to reduce emissions are captured.

Secondly, we are appreciative that \$30 million has been identified to help replace small off-road equipment typically used for commercial landscaping.

However, staff's proposal to run those funds through the CORE Program is concerning, as it may not be the most effective approach.

Many air districts already have existing lawn and garden equipment replacement programs and are already set up to expeditiously distribute funding where it may be

needed most, as they have the experience, expertise, administrative infrastructure and the outreach network to successfully implement replacements. We strongly urge CARB's consideration to allow the local air districts to implement this program, particularly focusing on disadvantaged and low-income communities, including AB 617 communities.

I thank you for the opportunity to provide CAPCOA's comments on the plan.

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BOARD CLERK ESTABROOK: Thank you.

Nicole Rice, you can unmute and begin.

NICOLE RICE: Thank you. Good morning. Nicole Rice, President of the California Natural Gas Vehicle Coalition and I'd like to comment on the proposed modifications to the Carl Moyer Program.

First, I want to support the staff's action to open up and consider a broader set of amendments to the Carl Moyer Program in 2022 and urge staff to move quickly and expeditiously to ensure that early and significant emission reductions can be achieved.

We agree that further changes are needed to the program than those being proposed today to fix chronic issues that make the program challenging for on-road vehicles. We recommend that during this extended or subsequent process, the staff also convene stakeholders to

have input on the creation of these additional modifications. And we recommend that the changes that be part of that consideration include an increase in the cap, increase in the cost effectiveness threshold to remove the model year restriction and approve the manufacturers delay extension for all projects.

However, we continue to be concerned that changes will not be made quickly enough to allow local districts like South Coast and others to use the recently allocated 45 million to deploy heavy-duty on-road low-NOx trucks, and we ask for the Board and staff's guidance and assistance to ensure that those funds do not go to waste.

Finally, I'll conclude by saying that Carl Moyer works for everything but on-road programs and we need to fix this immediately so we can realize greater near-term emission reductions in our most vulnerable communities.

Thank you.

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BOARD CLERK ESTABROOK: Thank you. Our next speaker will be Chris Shimoda. After Chris will be Bob Ingles, Teresa Bui and then a phone number listed as call-in user 1.

Chris, you can unmute yourself and begin.

CHRIS SHIMODA: Thank you. Chair Randolph and members of the Board, thank you for the opportunity to speak today. My name is Chris Shimoda with the California

Trucking Association.

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We are speaking in opposition to the proposed HVIP fleet size cap. Zero-emission trucks are at an extremely important pre-commercial stage of development. Excluding fleets of 50 or more vehicles from participating in the State's most important zero-emission funding program at this critical juncture would be a mistake. It is these larger fleets who have the necessary sources to make significant investments in demonstration and deployment of first-generation vehicles and costly charging infrastructure.

Funding programs such as HVIP accelerate this process by leveraging private and public dollars into larger projects than would otherwise be possible using private dollars alone, ensuring the state reaches its goals more quickly.

With regards to equity concerns and access to funds for fleets of 50 or fewer, we share those concerns as our average member operates 20 trucks. However, these concerns can be addressed through smaller adjustments to HVIP, such as carving out portions of funding, so smaller fleets get the first bite at the apple, rather than imposing a hard fleet-sized cap.

It was recently announced that \$63 million of HVIP funding was requested within nine minutes of becoming

available. This is clearly a wildly successful program that advances the State's zero-emission goals. And we hope to work with the Board and staff to ensure its continue success.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Bob Ingles, you may unmute and begin.

Bob, are you there?

You should have a prompt to unmute. And if you're on the phone, it would be dialing star six.

All right. I will come back to you in a bit.

Teresa Bui, you can unmute and begin.

TERESA BUI: Thank you. Good morning, everyone.

My name is Teresa Bui. I am with Pacific Environment.

We're an environmental non-profit focused on getting ships

16 off of fossil fuels.

Ships are one of the worst air polluters in California. And in just a year, fossil fuel ships will be the largest source of NOx and pollution at the Port of Long Beach and LA, surpassing heavy-duty trucks. And OGVs and harbor craft constitutes as one of the top three sources of cancer risk due to their diesel particulate matter exposure. CARB's own analysis shows that the increased cargo movement and associated emissions from that results in 20 premature deaths in the South Coast Air

Basin.

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So we have two main asks. We urge you to increase funding for zero-emission marine vessels for pilots, demonstration, retrofits, and new builds for harbor crafts and ocean-going vessels. And the funding should be -- not just early adopters, but for also implementation. Utilizing funds for zero-emission marine vessels will help spur economic development and create good quality jobs.

And just this morning in CalMatters, Captain

Maggie, a small business operator has urged for increasing

funding and support for them to able to implement the

Harbor Craft Rule. And we also urge CARB to fund a

separate program that's specific for zero-emission marine

vessels to help create market signal.

Thank you so much for your time.

BOARD CLERK ESTABROOK: Thank you.

Bob Ingles, you may unmute and begin.

Bob, I see that I've unmuted you, and I don't see that it's unmuting on your end, so I'll come back to you in a few commenters.

So let's go to call-in user 1, you can unmute and begin. It looks like you're unmuted now.

RANJI GEORGE: Hello. My name is Ranji George.

25 | Can you hear me?

BOARD CLERK ESTABROOK: Yes, we can.

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RANJI GEORGE: All right. Thank you.

My name is Ranji George. I am -- I worked at South Coast in the Technology Advancement Office for 30 years in fuel cells, batteries, and natural gas technologies. And I was probably the lone voice for solar technologies and zero-emission technologies in South Coast for a long time. And I'm glad to hear that ARB finally has recognized the need to put substantial funding for zero-emission technologies.

Last 10, 15, 20 years, natural gas has received the very bulk of technology. I'm afraid it was at the expense of zero-emission technologies. We could have been far ahead in zero-emission charging sectors and fuel stations had it not been for further funding. So glad ARB is doing that and I hope you'll stay the course. There's substantial lobbying for bat -- to going back to the old technologies namely natural gas, fossil fuel-based technologies.

So going forward, I still am deeply concerned that much of the funding will go to electric batteries. Hydrogen vehicles will still be struggling to find a foothold for the vehicles and the stations. So I urge Board members and staff to work together to make sure hydrogen gets its equitable share namely 50/50. And

may -- the cost effectiveness is a huge barrier. Hydrogen is coming along, but it's still not established. It's a very firm promising technology, so please set aside funding specifically for hydrogen beyond cost effectiveness.

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So just like solar, while we were -- I was lobbying for solar with AQMD -- I mean, South Coast, and they said it was not cost effective, but thanks to the State agency's funding, today solar is cost effective and same thing for hydrogen.

BOARD CLERK ESTABROOK: Thank you. That concludes your time. Thank you.

So our next three speakers will be Benjamin La Brot, Jimmy O'Dea, and then Eileen Tutt. Benjamin, I have activated your microphone, you can unmute and begin.

DR. BENJAMIN LA BROT: Hi. Thank you so much.

My name is Dr. Benjamin La Brot. I am the Director of the Floating Doctors medical team running an indigenous health service in western Panama. I'm also a Professor of Clinical Medicine at USC School of Medicine and an FDA compliance advisor for Roche Pharmaceuticals.

I'm just speaking on behalf of the Sportfishing industry. Unlike most of the people in my current professions, I didn't start out at a higher level of income. I started out at a much lower level of income.

And from age 13, I worked on sportfishing boats and commercial fishing boats all the way through medical school.

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I'm a big fan of a lot of what CARB has done. You know, I'm very aware of the improvements in air quality, especially compared to when I was a kid. But as far as the sportfishing industry is concerned, you know, I heard a lot today about -- talking about equity, and underserved neighborhoods, and, you know, there's a very large element of hypocrisy here, where you know, at a stroke, you're giving the commercial fishing industry, you know, certain dispensations because the technology to upgrade their vessels doesn't really exist yet and you are not extending that to the sportfishing industry. And essentially, you're going to gentrify the sportfishing entirely.

And it just makes me very sad to think that you're happy to wipe out an entire industry and the enormous amount of enjoyment and value that so many lower income families find coming out on the boats that I watched for many, many years. And I hope that you'll consider extending the same courtesy to the people catching your lobster and swordfish, you know, as you -- you know, to the -- to the folks who are working very, very hard, paycheck to paycheck, just trying to make a

living and keeping sportfishing, which is such an important part of California culture, available and accessible to lower income folks.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next commenter will be Jimmy O'Dea. I have activated your microphone. You can unmute and begin.

AIR RESOURCES ENGINEER O'DONNELL:

JIMMY O'DEA: Good morning, Chair Randolph and board. My name is Jimmy O'Dea. And I'm Deputy Director of Trucks at CALSTART.

With this funding plan, California can really show its leadership on the implementation stage, which is perhaps the hardest stage of achieving its climate and air quality goals. And coming off COP26, the world is really watching how California turns our targets into action. The need for this funding is urgent. We've seen demand far exceed available funding in the HVIP Program. Two hundred and twenty million in HVIP vouchers were awarded within just minutes of funds becoming available this year.

And as significant as this funding plan is, we have to act faster to meet the State's short-term, medium-term, and long-term goals on climate and air quality, and greater levels of funding will honestly be needed to meet those in the on- and off-road vehicle

sectors.

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I want to highlight that CALSTART member companies met with dozens of legislators this year to secure these funds and acknowledge that our members have different opinions on some of the proposed changes to HVIP in FY 23. And we look forward to working with CARB on future refinements of the HVIP Program as the market matures.

In all, we urge the Board to approve this funding plan. Truck makers are building zero-emission trucks now and are ready to build more. Fleets are ready to procure these vehicles at larger numbers than ever. And we need to send a signal to accelerate the buildout of infrastructure. And so really appreciate your work on this issue.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Eileen Tutt, you can unmute and begin.

members of the Boards -- Board. And congratulations on the opening of the Mary D. Nichols Campus. This is truly and auspicious moment. My name is Eileen Tutt and I'm the California Electric Transportation Coalition and I'm going to focus my comments on the CVRP provisions and the low carbon transportation programs.

I want to say that we and our coalition worked tirelessly and very, very hard to secure the amount of money allocated in the California State budget this year that sufficiently funded all of these very important programs, including CVRP for the first time in many years.

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There's also -- I want to say, there are income caps that are established by the Legislature and have long been in place now for the last three years and been very effective at driving these incentives towards middle class consumers, as well as low- and moderate-income consumers. So we were actually surprised when we saw the staff's proposal that not only ramped down the legislatively imposed income caps, but also imposed a suite of modifications to the program, and that were not related to either the budget language or the legislation. And I want to point out that the budget language did say that we should reduce the standard rebate.

And so we were thinking that that would -- that would happen, that it would ramp down over time, but were actually quite surprised and had not seen before this proposal came out, these phases based on one and 1.5 million, which is far short of the five million allocate -- suggested in the budget.

I just want to say that 90 percent of the people that get the CVRP say it's an important factor. And

almost 60 percent are now saying they wouldn't purchase the vehicle without the CVRP. So I encourage you to reconsider all of the modifications piled on top of each other to CVRP.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Before we move on, I will try Bob Ingles one more time. Bob, if you have a prompt to unmute, you should be able to do that and begin your comment. Okay. I will -- I'm going to lower your hand and ask that you raise it again, if you are still wanting to speak.

Our next three speakers will be Roman Partida-Lopez, and then Ben Granholm, and Joseph Kleitman.

Roman, I have activated your microphone. Please unmute yourself and begin.

ROMAN PARTIDA-LOPEZ: Thank you. Buenos dias, Chair Randolph, members of the Board. On behalf of the Greenlining Institute, I'm calling in support of this funding plan.

I want to thank staff for their hard work on putting this funding plan together and creating an inclusive process with multiple opportunities to provide direct input and feedback on the various programmatic changes that you see before you We urge the Board to not delay approving this funding plan, as these programs are

critical in providing direct, meaningful benefits to disadvantaged and low-income households and help the State reach its EV goals.

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In regards to the various changes, I want to focus my comments on CVRP, the Clean Cars 4 All, and the equity projects. CVRP, a program that's been around for 10 years with an over a billion dollar investments, we support the programmatic changes that are provided in this plan, which includes increasing the income cap for standard rebate eligibility based on the sales benchmarks.

As was noted earlier by my colleague Bill
Magavern and Chris Chavez, you know, we were part of the
Charge Ahead coalition that created equity requirements on
CVRP. And we've -- even though there's been some
progress, the program has not delivered in providing
equity outcomes. And so it is time to really refocus the
funding that we have and really focus on programs that are
delivering equity and ensuring that we're providing direct
benefits to low-income households.

So we're also requesting that CARB analyze and develop a comprehensive plan that will be done within a year to determine what it means to sunset this program and transition into programs -- transition that funding over to programs that are focused on delivering equity.

In regards to Clean Cars 4 All, we urge the Board

to direct staff to put into a grant agreement with the districts a prohibition on treating Clean Cars 4 All awards as taxable income. This has created challenges for low-income households to participate in this program, and it's been an issue that has continued for many years. If CVRP doesn't do it -- require it, we also request that Clean Cars 4 All doesn't either.

So with that, thank you for your time.

BOARD CLERK ESTABROOK: Thank you.

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I just wanted to make a quite note that Bob I saw that you raised your hand, so I'm going to try you -- to unmute you one more time. You have a prompt. Please try to unmute and begin your comments.

BOB INGLES: Unfortunately, it looks like this was a mistake. We are actually on Item number 6. And I just want to let you know, we will be commenting on item 6, but we are not involved in item number 4, but thank you very much.

BOARD CLERK ESTABROOK: Okay. Thank you.

So let's go to Ben Granholm. You may unmute yourself and begin.

BEN GRANHOLM: Well, good morning, Chair Randolph and Board. My name is Ben Granholm on behalf of the Western Propane Gas Association. Thank you for the opportunity to comment today. WPGA would like to align

ourselves with the comments made by a number of previous speakers working to clean California's air and help the State meet its emission reductions goals.

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WPGA, along with many others, are strong supporters of clean energy and appreciate the time and effort the Board and staff have dedicated to the funding plan. There is significant demand for effective and reliable incentives for low-NOx trucks. And we believe that low-NOx technologies in the on- and off-road sectors must be a vital piece of any strategy to reduce emissions in the transportation sector.

WPGA wholeheartedly agrees that changes need to be made to the Carl Moyer Program and we are pleased that the staff presentation commits to working with stakeholders to make additional changes as the proposed modifications today don't go quite far enough to fix the challenges that continue to plague the program for on-road vehicles.

Not only will additional improvements mentioned by Tom Swenson of Cummins and Nicole Rice of CNGVC enhance the long-term utility of the program, but they will also allow the air districts to use the \$45 million budget allocation provided by the Governor and Legislature to deploy low-NOx trucks in the most polluted communities of the state.

We support staff's recommendation and urge expeditious development and adoption of the needed additional modifications. WPGA advocates for supporting all low-carbon solutions, based on the full fuel cycle to address environmental challenges. The use of renewable fuels, such as renewable propane derived from sustainable sources in these low-NOx engines offer even greater emission reduction potential.

Carl Moyer works for everything but on-road vehicles. We must fix these issues as quickly as possible and look forward to our continued collaboration, so California can realize greater near-term emission reductions in all communities.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Joseph Kleitman. After Joseph will be a phone number ending in 432, and then Thomas Keller and Graham Balch.

Joseph, you can unmute and begin.

JOSEPH KLEITMAN: Hello. I wanted to thank everybody. I'm a concerned citizen here, but I really wanted to thank everybody for creating what I see in this process as momentum in the right direction. My comments have to do more with some of the broad things that I see, both in and out of the plan. There was speakers who

talked about lawn and garden, speakers who talked long haul trucking fleets, small engine, agricultural burns, equity, a lot of different issues.

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And having your focus detailed to that level as you proceed forward is something I truly appreciate. I see two glaring things missing. One is specific discussion of the marine environment and the kinds of incentives that can be provided and the well thought-out planning for evaluating the situation that's been applied to these other areas in the marine environment.

Later today, you're going to be considering specific recommendations on that environment. And I would just say that it seems to me that they should be included in this broad study and I did not see them. I did searches on marine, searches on boat, searches on water, and they're not in this large-scale, well thought-out plan. So I encourage you to make the same kind of effort in that environment and with that set of stakeholders that you do with the truckers, with the gardeners.

The next thing is more of a missing point. I've heard about solar, I've heard about hydrogen, I've heard about fossil fuels, but no one has mentioned nuclear.

It's the hot elephant in the corner. And I really think that it's time to make a concerted effort to include thoughtful consideration of nuclear power sources as they

can be utilized to make our air better.

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I remember the bad old days in California. I've been living here for 56 years. Once more, I appreciate your getting rid of those days.

BOARD CLERK ESTABROOK: Thank you.

Phone number ending in 3 -- 432, I will -- please state your name for the record and I will give you a notice when there's 30 seconds remaining and when your time is up.

You should be able to unmute by dialing star six.

MILES MULLER: Good Morning Chair, members. My name is Miles Muller on behalf of the Natural Resources Defense Council here in strong support of the funding plan. I want to just briefly echo the comments made by others in support of the funding plan, including Bill Magavern, Chris Chavez, Jimmy O'Dea, and Roman Partida-Lopez. We especially appreciate the commitment to investing at least 60 percent of funds in disadvantaged and low-income communities and urge ARB to treat the 60 percent investment guarantee as a minimum floor, rather than a maximum cap.

We further encourage ARB to focus their investments to ensure funds are reaching the hardest-to-reach communities, prioritizing those with the greatest barriers to participation, rather than taking a

first-come, first-served approach.

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Regarding, CVRP, we support increasing the income cap for younger rebate eligibility based on sales benchmarks and request that ARB analyze and develop a comprehensive plan to sunset the program.

Regarding Clean Cars 4 All, we support ARB's in intention for a statewide program, but believe funding for statewide expansion to be on top of funding for existing transportation equity programs. We also request that ARB provide direction to each implementing air district to not issue a 1099 form for program participants and ask that the Board direct staff to put a prohibition on treating Clean Cars 4 All awards as taxable into the grant agreements with the districts.

On the Clean Vehicle Assistance Program, we support staff's proposal to move the program from a first-come, first-served program to one that is targeted and focused on reaching the households that would benefit most.

And finally, and most importantly, we urge the Board to not delay approving this funding plan, as these programs are critical for providing direct meaningful benefits to disadvantaged communities and low and moderate income households, and to helping the State reach its climate, equity, and air quality goals.

So thank you for the opportunity to comment today.

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BOARD CLERK ESTABROOK: Thank you.

Thomas Keller, please unmute and begin.

THOMAS KELLER: Thank you. And good afternoon, Chair Randolph and Board members. I'd like to thank you all for the opportunity to provide comments today. My name is Tom Keller. I'm the CEE of Clean Cold Power U.S.

Clean Cold Power is deploying cost-effective, safe, and easy-to-install zero-emission transportation refrigeration units, or TRUs. Our nitrogen-based systems provide efficient cooling for transport of food, medicine, and other goods. It provides a cleaner and more sustainable alternative to conventional diesel refrigeration units. And our units are powered by sustainable nitrogen, basically cold air. There's no combustion, no fuel, or the extraordinary pollution generated by conventional diesel-powered refrigeration.

Every Clean Cold Power TRU that replaces a diesel has about the same benefit of taking 80 cars permanently off the road. We strongly support the hundred and -- the proposed 195 million allocation to the CORE program, which will help accelerate deployment and commercialization of these advanced technologies in the off-road sector. It provides streamlining funding for fleets, offset these

incremental costs of cleaner technologies.

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These technologies, you know, they're available now. They're there. We're scalable. They're there. We can solve this problem now. The proposed investment will provide this much needed funding to support the deployment of these zero-emission TRUs throughout the state. And this will significantly reduce greenhouse gas and eliminate criteria pollution emissions.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Graham Balch After Graham, will be Lacy Robertson, Ashley Remillard, and then Wayne Kotow.

Graham, please unmute yourself and begin.

GRAHAM BALCH: Hi. This is Graham Balch, the managing broker of Green Yachts. In the 1980s when I was 15, I helped the first newspaper in the U.S. display a logo and message about recycling. So why would a longtime environmentalist like me be voicing concern about this proposed funding plan? The answer is because there is a huge glaring red flag problem.

The largest sector of pollution in San Pedro basin was not mentioned once in the staff presentation, not once. This same sector, which globally represents the sixth largest country in terms of climate change emissions

was not mentioned once. This sector that is the largest source of pollution and emissions is the marine sector.

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It is woefully behind and requires dedicated zero-emission funding to fund technology development, provide project funding, and create equity. Regarding technology development, though legally mandated, the CEC does not have single solicitation for this sector right now, despite it being behind all other sectors in technology development.

Regarding project funding, the CARB staff didn't tell you this, but 95 percent of the Moyer funds for the marine sector, hundreds of millions of dollars over the next decade will be spent on combustion engine repowers that do nothing to address climate change, whereas their focus in every other sector is on zero-emission technology.

Regarding equity, the sportsfishing industry just mentioned the lack of equity funding. A small woman-owned business operating a ferry, that Teresa Bui of Pacific Environment mentioned, has to pay more and do more to go zero-emission in the marine sector than any of the big operators in the marine sector. How is that equitable?

I advocate that the Board create dedicated zero-emission marine funds just like they're doing in every other sector, so that we can help this marine sector

catch up and reduce our emissions and climate change emissions.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Lacy Robertson, please unmute and begin.

LACY ROBERTSON: Good morning. This is Lacy Robertson with Rush Enterprises. We are North America's largest commercial vehicle dealership group. Thank you for the opportunity to comment on the proposed funding plan.

First, I'd like to echo South Coast AQMD's recommendation to reinstate the Grants Advisory Committee.

The remainder of my comments today will focus on the proposed changes to HVIP and the Carl Moyer Program. I will start with HVIP. We are extremely concerned with the proposed fleet size limits and urge the Board to remove them from the plan. Large and mid-size fleets play a critical role in developing the market for zero-emission technologies and they will continue to accelerate the deployment of ZEVs if they have access to HVIP funding.

We understand the importance of small fleets having access to funds, so we recommend that staff consider creating a carve-out for mid-sized fleets. This would ensure that fleets above a hundred vehicles do not absorb a disproportionate amount of funds available, while

still allowing larger fleets to participate in the program.

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CARB has approved multiple case-by-case soft cap requests allowing several manufacturers to hold two to four times the manufacturer cap and allowed them to continue requesting vouchers. As a result, other OEMs have not been granted vouchers because funds ran out.

Allowing a few OEMs to get most of the fund, thereby blocking access to funds to other OEMs is unfair to the marketplace and hinders overall market growth. To solve this problem, we recommend that if an OEM has unredeemed vouchers that exceed the voucher term of 540 days, they will not be eligible for additional vouchers in excess of their soft cap. This would allow for every OEM to have greater opportunity to secure funds, while incentivizing OEMs to deliver ZEVs in a timely manner.

Now, I will shift to Carl Moyer. The proposed modifications before you are ineffective to fund on-road trucks. They're -- there's an immediate need for CARB to revisit the effectiveness of the Moyer program and we believe stakeholder participation is critical. Carl Moyer works for everything but on-road incentive funding. We need to fix this immediately so we can realize greater near-term emission reductions in our community.

We are hopeful the Board will consider these

recommendations and look forward to working with CARB staff to implement these important funding programs.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Ashley Remillard, you may unmute and begin.

ASHLEY REMILLARD: Good morning. My name is Ashley Remillard and I'm Vice President of Legal and Government Affairs at Hexagon Agility. We are a leading global provider of clean fuel solutions for medium- and heavy-duty commercial vehicles, offering natural gas storage and fuel systems, as well as Type 4 composite natural gas cylinders. Thank you for having us today.

We believe there is immediate need for CARB to revisit the effectiveness of the on-road portion of Carl Moyer. Unfortunately, the proposed modifications do not go far enough to fix the challenges that exist in the current program.

We are supportive of the proposal to open up the on-road components of the Carl Moyer Program to amendments and to bring those back to the Board in 2022. During that process, we encourage the Board to consider increasing the 50 percent cap for larger fleets, increasing the cost effectiveness threshold, removing the model year restriction, and approving the manufacturer's delay extension for all projects. We look forward to engaging

in the public stakeholder process to ensure that there is an effective, near-term emission incentive program that displaces diesel.

We encourage CARB to also consider a way to allow local air districts to use the 45 million budget allocation in the near term to allow for the deployment of heavy-duty low-NOx trucks in the most polluted communities of the State.

Carl Moyer works for everything but on-road incentive funding. We need to fix immediately, so that we can realize greater near-term emission reductions in our communities.

Thank you very much.

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BOARD CLERK ESTABROOK: Thank you.

Our next three speakers will be Shayda Azamian, Paul Dyson, and Tim Carmichael.

Shayda, you may unmute and begin.

see long-term clean air reality in our region.

SHAYDA AZAMIAN: Hello. Thank you. Hello, Chair Randolph and Board members. Really appreciate the time to speak with you today. My name is Shayda Azamian with the Leadership Counsel for Justice and Accountability. Leadership Counsel works with residents in the San Joaquin Valley, many who have been working their whole lives to

Today I would like to speak on -- speak briefly

on the ag burning item. We appreciate that acknowledgement that non-combustion alternatives must be prioritized above any other combustion alternatives in CARB's report. And before voting on the ag burning combustion alternative incentive proposal before you today, we ask that the CARB Board members here today clarify two things of staff for the public's benefit and incorporate these ideas into the proposal.

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Firstly, we would appreciate if the CARB Board would clarify with staff today what reporting will be required of growers that utilize these funds for combustion alternatives, a fund which was originally and importantly intended only for non-combustion alternatives. And we would insist that CARB track how much of this fund is allocated to combustion versus non-combustion alternatives, and that a significant majority of these limited funds go to the clean alternatives for which help is needed the most.

Additionally, as part of this reporting portion, we'd also urge there be a requirement of growers to document their own efforts to utilize non-combustion alternatives before it is determined that none of these clean alternatives are available to them as the specific grower.

This is essential to honoring the prioritization

of non-combustion alternatives documented in Figure 1 of CARB's report and to providing neighboring residents the assurance that grower is acting with their health and well-being in mind.

Secondly, we request that the CARB Board clarify with staff for the benefit of the public a key piece of language in the resolution and what it means. This language is, "non-stationary combustion alternatives to agricultural burning", which CARB staff is proposing to make eligible for incentives as a method of disposing of wired crops. So we're not sure what, "non-stationary combustion alternatives", is meant to include here and would appreciate that clarification.

Thank you so much.

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BOARD CLERK ESTABROOK: Thank you.

Paul Dyson, please unmute and begin.

PAUL DYSON: Good morning, Madam Chair and Board. Paul Dyson. I'm a veteran of 50 years in the railroad industry and I'm a resident of Burbank, California and I want to comment on the policy regarding locomotives. In the past year, this organization and the San Joaquin Air District gave over \$20 million to BNSF railway and Wabtec Corporation to do a three-month demonstration of a battery locomotive in the San Joaquin Valley, three months, \$20 million.

What has happened to this locomotive? Where is it now? What benefit has California got from this demonstration? Where are the California jobs? The answer is almost zero. The demonstration achieved about a 10 percent reduction in emissions, which was entirely predictable from a computer simulation. Those companies, one with 600 billion market capitalization and one with 17 billion market value could easily have paid for this themselves. Not only that, but through the tax code, they could have expensed this as a capital expense, greatly reducing the cost. I hope we don't do anymore of this sort of thing. We should be supporting California companies.

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Secondly, an earlier comment about replacing one fossil fuel burner with another. Through CARB and the other agencies, you've spent somewhere close to \$400 million on replacing diesel locomotives with other diesel locomotives. Yes, they're a bit cleaner, but it seems to have been overlooked that passenger locomotives have a different performance regime in Tier 4 to freight locomotives. And when they're idling at stations and going at slow speeds, they're actually producing as much NOx as the locomotives they replaced. This needs some further study on your part before these mistakes are repeated.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Tim Carmichael. After Tim will be Lindsay Battenberg, Ryan Kenny, and then Suzanne Hume.

Tim, please unmute and begin.

TIM CARMICHAEL: Good day. Can you hear me? BOARD CLERK ESTABROOK: Yes, we can.

TIM CARMICHAEL: Thank you. This is Tim
Carmichael, Government Affairs Office with the Southern
California Gas Company. I want to say hello to Chair
Randolph and members of the Board, and start by echoing
the comments of a few previous speakers, Matt Miyasato
with the South Coast Air District, Nicole Rice with the
Natural Gas Vehicle Coalition, and Ashley Remillard with
Hexagon. Thank you for all of their comments, because you
make my comments much briefer.

Our focus is on on-road heavy-duty and the Carl Moyer Program. As many have commented already, the tran -- transitioning older diesel vehicles off the road is really one of the most important actions this agency and the State can take to protect public health from air pollution. We greatly appreciate the positive comments from CARB staff in the opening presentation, including the proposed process for 2022, but we are concerned about the

length of that process and that it might delay getting funds out the door.

And then the last thing I'll say in closing is it's clear from the testimony today that many people are concerned about the on-road portion of the Carl Moyer Program. We look forward to working with CARB management to address those concerns and get them resolved as quickly as possible.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Lindsay, please unmute and begin.

Lindsay, I would suggest maybe trying to call back with a call-in number. I don't see a microphone connected on your end, so I'm unmuting you, but there's not -- I don't see a option for you to unmute. So if you could try calling back in at the call-in number, then I'll try to take your comment then.

Let's go to Ryan Kenny. You may unmute and begin.

RYAN KENNY: Yes. Thank you. Good afternoon,
Chair Randolph, members the Board. Thank you for your
time this morning. My name is Ryan Kenny with Clean
Energy. And I would also like to echo strong support for
the opening of the on-road portion of Carl Moyer. We
appreciate staff's interest in looking to do that. Of

course, having as much stakeholder participation is important. There was the idea floated earlier about convening the Investment Advisory Committee. And that would provide a really good opportunity for all stakeholders to give ideas and recommendations that on how to really modify effectively the on-road portion of Carl Moyer.

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Of course, urgency is of the essence with this. Having this back to a -- for a Board vote as soon as possible, preferably within a few months would be very important to really address the diesel issue in California. The really is not, in our view, an effective incentive program to displace diesel trucks in the near term. Carl Moyer is it, and effectively modifying it is imperative.

Capping diesel in the next five to ten years is different now than in the past. And these potential modifications and the recommendations that have been recommended by several stakeholders I think would lead to greater emission reductions in the near term, for black carbon, NOx reductions, and, of course, greenhouse gas emissions.

We'd also like to have some clarity on a slide in the presentation about \$45 million for low-NOx trucks that was allocated by the Legislature. And if this would

indeed be within the guidelines for consideration with the Investment Advisory Committee or could that money be actually pursued on its own outside of the guidelines for Carl Moyer. Carl Moyer works for everything but on-road incentive funding. We really need to fix this immediately, so we can realize greater gains for near-term emission reductions in our communities.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Okay Lindsay, let's try again. I see an option for you to unmute. Are you there?

LINDSAY BATTENBERG: Yes. Can you hear me?
BOARD CLERK ESTABROOK: Yes, we can.

LINDSAY BATTENBERG: Great. Thank you.

My name is Lindsay Battenberg and I'm speaking on behalf of Proterra. We are an EV technology company and manufacturer of electric transit vehicles. We're headquartered in the Bay Area with a manufacturing facility in L.A. County. I'd like to thank the Air Resources Board for their leadership and support on California's clean transportation industry.

Proterra supports the proposed heavy-duty and off-road investments included in the Low Carbon Transportation Funding plan. More specifically, we support the proposed 570 million for HVIP including the 70

million and 130 million dollar set-asides for transit and school bus. The funding for transit will help public fleets achieve compliance with the Innovative Clean Transit regulation and improve emissions from the public transit sector. The support for the zero-emission school buses will help our cash-strapped school districts transition their aging vehicle fleets and reduce exposure to harmful pollutants for our state's children.

Proterra also supports the proposed \$165 million allocation to the CORE Program, which will help accelerate the deployment of advanced technology in the off-road sector by providing a streamlined way for fleets to access funding that helps offset the incremental costs of this technology.

Thank you so much

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Suzanne Hume. After Suzanne will be Matthew Schrap, Bonnie Trowbridge, and then Meredith Alexander.

Suzanne, please unmute and begin.

SUZANNE HUME: Hello. And thank you, Chair
Randolph and CARB Board. My name is Suzanne Hume and I'm
the educational director and founder of
CleanEarth4Kids.org. Your work at CARB saves lives.
There's a high cost to pollution. Air pollution harms

children's brains, learning potential, development, and their future. Air pollution harms families, seniors, workers, and productivity. We must fund zero-emission technology and prioritize environmental justice.

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We're really excited about the clean air program for San Diego and the incentive programs for buybacks for gas-powered leaf blowers and lawn equipment. We are part of CQEL in San Diego to protect workers, children and the public from high levels of toxic cancer-causing emissions, such as benzene, formaldehyde, and fine particulate matter that comes from leaf blowers and lawn equipment. And we want to make sure that the funding goes to AB 617 communities of concern as stated by Tung Le of the San Diego Air Control Board, and thank everyone who has spoken today to protect clean air, children's health, and future, environmental justice, front-line communities, and families living next to sources of air pollution, freeways, highways, busy roads toxic chemicals and pesticides, and agricultural burning.

As the youth say, we need to stop burning stuff, stop burning fossil fuels, including natural gas, which is just methane gas, a climate warming gas that creates indoor and outdoor pollution. For our kids, their future, and our climate, we must stop burning fossil fuels diesel, biofuels, biomass.

And we echo the comments of Alan Abbs, we must stop putting more particulate matter into the air that harms lungs, especially with COVID.

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Your work at CARB saves lives. Thank you so much for all you do. Thank you from CleanEarth4Kids.org.

BOARD CLERK ESTABROOK: Thank you.

Matthew Schrap, you may unmute and begin.

MATTHEW SCHRAP: Good afternoon, Chair, Board members, and all the esteemed commenters today. My name is Matthew Schrap. I am the CEO of the Harbor Trucking Association. And I come here this afternoon to make comment in support of both the American Trucking Association's as well as the California Trucking Association's perspective on the misguided approach to limiting fleet size under HVIP.

America, this, in fact, is a needed incentive program for larger fleets who are more well capitalized to make the investments in not only the vehicles but in the infrastructure required to support them. If we limit the amount of large fleets that are able to take part in this, we will not have a robust secondary market, which is really where the small fleets will most benefit from.

Additionally, while we talk about innovative strategies for small e-Fleets. Just the terms that -- of

truck as a service or any innovative leasing programs fleet size will also preclude those from -- those that provide those services from participating in the HVIP Program.

Please, it is necessary that we take a step back and not allow these fleet size limitations to take place while we're in the middle of one of the most progressive requirements across -- in the world for that matter, for drayage trucks who are looking at an entry standard beginning in 2023.

I applaud staff for their hard work in trying to address some of these challenges. And while we understand that the HVIP Program is extremely important and oversubscribed many of the times, we still need to have a more progressive approach and that will require supporting large fleets again to help support the secondary market, which will really help the small fleets engage in drayage service.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Bonnie Trowbridge, you may unmute and begin.

BONNIE TROWBRIDGE: Thank you. And good afternoon, Chair Randolph and members of the Board. My name is Bonnie Trowbridge and I'm representing Zeem Solutions today. Zeem transforms the way small- and

medium-sized fleets operate by providing a single source solution for leasing, servicing, parking, and charging zero-emission commercial vehicles.

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I'm here today to express our strong support of the proposed funding plan for clean transportation initiatives with the proposed allocation of \$570 million for the HVIP Program, including the \$25 million set-aside for innovative small eFleets that will help address the unique needs of this traditionally underserved group that makes up a significant share of the medium- and heavy-duty fleet market.

Zeem's eFleet as a service model levels the playing field for small fleets and independent operators to adopt zero-emission vehicles now in a way that is cost effective and helps their business succeed, if we help resolve significant barriers that they face to adopting zero-emission vehicles, especially the lack of resources to navigate incentive programs like HVIP.

Creative financing models like eFleet as a service and other comprehensive leasing options that support small fleets have been challenging in HVIP in the past. We're looking forward to engaging with staff on an innovative small eFleets pilot program to support the success of small fleets and demonstrate the need to allocate additional funding for this program in the future

to accelerate small fleet accept -- small fleet participation in the race towards zero-emission vehicles.

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Thank you for the opportunity to today to provide comments. We also have provided a letter for you to read as well. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Meredith Alexander, please unmute and begin.

MEREDITH ALEXANDER: Good afternoon, Chair Randolph and members of the Board. Meredith Alexander here on behalf of CALSTART, particularly our board and our now over 300 members.

I know you already from my colleague Jimmy O'Dea on the heavy-duty elements of this proposal. And I'm here to speak to the light-duty and equity elements. So first on the CVRP, we, you know, spent a lot of time in the capitol working with our members and legislators to restore funding for the CVRP program without further limitations on eligibility. We think this is really critical to transforming the market and to Californians adopting ZEVs.

And we really wanted to encourage CARB today to consider waiting until Congress passes the Build Back Better Act, which could be imminent, to consider changes to the program, but obviously not to wait to spend the funds, which, you know, have been needed for quite some

time.

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And also, we wanted to express our strong support for the eBike component of the CVRP program. This is exciting. We wanted to highlight that e-bikes are probably the most emissions-efficient mode of transportation.

And then finally, on the Clean Mobility Options
Program, excited to see additional funds going into this
program, where we know they will have direct benefits to
these communities, as the recent awards have to
communities like Fresno and Chula Vista adopting new
electric mobility options that are designed to meet the
needs of their community. We think this has really great
support across the policymaking sphere and is a model that
we hope the rest of the country will also follow to
improve private equity in transportation.

Thank you so much for your consideration of my comments.

BOARD CLERK ESTABROOK: Thank you.

Our next speakers will be Sherrie Merrow, Daniel Mabe, Sam Appel, and then Kevin Hamilton, and those will be the remaining speakers for this item.

Sherrie, please unmute yourself and begin.

SHERRIE MERROW: Good afternoon, Chair Randolph,
Board members and staff. Thank you for the opportunity to

comment on needed changes to the Carl Moyer Program. I am Sherrie Merrow, the Director of State Government Affairs for NGVAmerica, the national trade association dedicated to the decarbonization of the transportation sector through the increased use of gaseous fuels, including renewable, and conventional natural gas, and eventually hydrogen.

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Medium- and heavy-duty renewable natural gas powered trucks and buses are on our roads today. And as CARB data shows, the average carbon intensity of renewable CNG sold in California in the second quarter of 2021 was minus 35.87, making renewable natural gas the lowest of any in-use motor fuel.

Large national fleets like Amazon, UPS, Waste Management, and many fleets and transit systems in California are transitioning their heavy-duty vehicles to RNG-fueled cabs, and box, and delivery trucks, in addition to their last mile EV investments.

As indicated today, there is an immediate need for CARB to revisit the effectiveness of the on-road portion of Carl Moyer. Stakeholder participation in this process would be highly beneficial. There is no current effective near-term emissions incentive program in California that displaces diesel. Tackling diesel in the next five to 10 years is different now than in the past

and requires changes.

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Carl Moyer works for everything but on-road vehicles. With the already discussed changes being made, we can realize greater near-term emission reductions in our communities.

Thank you for this time.

BOARD CLERK ESTABROOK: Thank you.

Daniel Mabe, please unmute and begin.

DANIEL MABE: Okay. Good morning, Chair
Randolph, Board members. Dan Mabe with the American Green
Zone Alliance, also known as AGZA.

First, we want to support your funding plan and we do applaud the California Air Resources Board for addressing clean technologies for the lawn and garden sector. I grew up actually doing this line of work with the man of the house, who was a high-volume gardener. Spent many summers and weekends doing this line of work with and around gas tools

In regards to the administering of funds for the Lawn and Garden Program, we are encouraged to know CARB is including air district implementation coordination. We look forward to understanding the details of this development. The air districts have well-organized programs in place, which have been transformative and run efficiently.

Finally, AGZA would like consideration to be given for workforce training for the grounds maintenance industry, as we usher this along, as has been considered for the EV programs.

Thank you very much.

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BOARD CLERK ESTABROOK: Thank you.

Our final speaker will be Kevin Hamilton.

Kevin, please unmute and begin.

KEVIN HAMILTON: Hi. Can you hear me now?

BOARD CLERK ESTABROOK: Yes, we can.

KEVIN HAMILTON: Hello. Can you hear me?

Oh, yes, we can. Hello. Great.

BOARD CLERK ESTABROOK: Yes, we can.

KEVIN HAMILTON: So this is Kevin Hamilton at the Central California Asthma Collaborative and the San Joaquin Valley Clean Vehicle Empowerment Collaborative CVEC. We have several recommendations, but the primary one is that we are in support of CARB approving all of the funding plan as it is as quickly as possible.

With regard to CVRP, we see that transition and we agree whether it -- the name is irrelevant to us, but we need that funding to move to a standard rebate for LMI DAC populations.

We need to streamline the EV incentive programs and simplify applications for buyers and vouchers for

dealers. Ensure sufficient EV incentives are available for folks in the -- below 300 percent FPL and the 300 to 400 percent FPL groups. We can't have these incentives running out in the middle of the program.

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We need to increase accountability and ensure incentives go to people who really need them. So we've advocated for quite a while now a needs assessment as a filtering device to determine, you know, what's the status of the person who's receiving it and do they actually need it.

We also want to say that we support in CC4A our colleagues call that the Board direct staff at air districts to put into these grant agreements a prohibition on treating CC4 awards as taxable. That's ridiculous in our opinion. With regard to HVIP, we strongly support draft funding plans focused on small fleets and increase funding for microfleets in disadvantaged communities, and an HVIP set-aside for small eFleets. Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

And I'm sorry, I did overlook we have one more commenter for this item, Steven Douglas.

You may unmute and begin.

STEVEN DOUGLAS: Great. Thank you. I'm Steve
Douglas with the Alliance for Automotive Innovation
representing car companies that produce over 95 percent of

the new vehicles in California.

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We submitted written comments, so you should have those. We support much of what's in the funding plan, including all the programs that address priority communities, such as the increased CVRP rebate for LMI communities and the Clean Cars 4 All.

However, we don't support other changes to the CVRP that dramatically complicate and reduce the effectiveness of the program that led to the most successful ZEV market in the U.S.

Like CalETC and Eileen Tutt we were surprised by the changes in the final proposal. So where we are we at today? Today, the ZEV market of about 10 percent is largely built on affluent, high tech, early adopters. However, over the next three to five years, we have to grow this market to about 40 percent. And that's going to require the expansion beyond the affluent and into the mainstream, where the rebate is far more important.

In fact, the CVRP survey data suggests that 57 percent of buyers would not have purchased a ZEV, but for the rebate.

The proposed funding plan reduces the income cap not once but twice, reduces the MSRP cap, divides small and large vehicles, it reduces the rebate amount, and it eliminates plug-in hybrid electric vehicles, even though

the data shows that low-income buyers choose plug-in hybrid electric vehicles at a higher rate than the more affluent Californians.

These changes dramatically complicate the program and it reduces it effect -- its effectiveness at the very time we need it most. Again, we request that the staff hold additional discussions. We would agree with Meredith that changing the program before we know what happens with the Build Back Better is premature. So we would like to have more discussions with the staff.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Chair, that concludes the commenters.

CHAIR RANDOLPH: Okay. Thank you. So we do need to give our court reporter a break and it's almost 12:30, so I think we will take a 45-minute lunch break and come back at 1:05, and have Board discussion on this item.

(Off record: 12:21 p.m.)

AFTERNOON SESSION

(Thereupon a lunch break was taken.)

(Off record: 1:07 p.m.)

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CHAIR RANDOLPH: Okay. Welcome back to the Air Resources Board meeting. So the clerk called to my attention that there were a few commenters at the end of the public comment period for 21-12-4, who raised their hands and were not called on, so I'm going to ask the clerk to go ahead and call on those four individuals and they will have up to two minutes to make their comments.

So, Clerk, go ahead.

BOARD CLERK ESTABROOK: Thank you.

Dave Cook, I see you that also raised your hand again. And so I will unmute, activate your microphone, and you can unmute and begin.

DAVID COOK: Hello. Can you hear me?
BOARD CLERK ESTABROOK: Yes, we can.

DAVID COOK: Good morning, Chair Randolph and Board members. My name is David Cook and I work at a small California technology company that develops and demonstrates locomotive modernization retrofits. We currently have two zero-emissions battery switcher locomotive projects ongoing in the Los Angeles area.

Withe Air Board's leadership, there has been a half century of progress to lower emissions from mobile

sources in many applications ranging from cleaner automobiles in the 1970s up through zero-emission battery buses becoming the new normal today.

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But the State has spent hundreds of millions of dollars over the past few decades. And, at this time, less than 10 percent of the criteria emissions are coming from locomotives certified to Tier 4 emission standards. And also, the Tier 4 locomotive emission standards are decades behind what is required of trucks.

The locomotives we're referring to in this comment period that we're working on and proposing are industrial in yard-switching locomotives that spend all of their time sorting railcars at railyards in urban disadvantaged areas impacted by high pollution.

RPS has teamed up with a switching locomotive OEM, and together we have proposed to ARB staff that the CORE Program under this funding plan being discussed should include a category for zero-emissions locomotives for both industrial and yard-switching applications.

Locomotives are unique in that 50-year old locomotives are just as functional as brand new locomotives in railyard switching service and zero-emissions pilot locomotives for this application can be put into pilot service with current technologies now. Also, leasing advanced locomotives in the CORE Program

could accelerate the pilot demonstration of lower emissions equipment in this application that as I'm discussing is decades behind.

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We further request the CORE Program keep the manufacturer purchase open for this category as this will be the first year.

And I'll submit additional written -- BOARD CLERK ESTABROOK: Thank you.

DAVID COOK: -- details --

BOARD CLERK ESTABROOK: Thank you. That concludes your time.

Our next speaker will be Wayne Kotow. Wayne, please unmute yourself and begin your comments.

WAYNE KOTOW: Good afternoon, Chair Randolph,
Board and Staff. Wayne Kotow, Executive Director with
Coastal Conservation Association of California. While
we're enthusiastic over the proposed funding plan, we are,
however, disappointed that it does not include funding for
the commercial passenger fishing vessel pilot technologies
and incentives for the owners to update their vessels. We
need you to provide help for them to meet the proposed
regulation changes that do not exist and don't have enough
volume with less than 200 vessels to prioritize their
needs with the engine manufacturers, with all of the other
sectors taking priority. This is setting them up to

failure and it hurts the communities of California.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Will Barrett. Will, you may unmute yourself and begin.

WILL BARRETT: Hi. Thank you very much. I'm
Will Barrett with the American Lung Association. I
appreciate you taking me after the break. Very much
appreciate the opportunity to speak today on this critical
plan.

This plan and the Energy Commission's plan adopted earlier this week really do represent historic investments in healthy air for all Californians. The Lung Association urges you to adopt the staff proposal today to bring these benefits online as soon as possible. I sit on the Energy Commission's advisory panel on their plan and wanted to really note the importance of that plan that adopted this week, which directed over half of the investments to lower income and disadvantaged communities.

So in that spirit, we strongly support CARB proposing to direct 60 percent of investment to achieve health benefits in low income and disadvantaged communities. We think this is critical. We do support the equity focused proposals in the light-duty incentive programs, including CVRP and the equity investments, as

well as the suite of healthier mobility option at schools and elsewhere. And also wanted to echo the request to clarify that the Clean Cars 4 All Program should really not create a tax issue for low-income Californians who take advantage of it.

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We support the proposed phasing of the HVIP Program to smaller fleets to really ensure that these fleets are prioritized for support, while maintaining flexibility in the program overall. The Energy Commission just approved nearly 700 million in medium— and heavy—duty infrastructure. That's a major or complement to these proposals.

On the small off-road engine equipment, we really just wanted to echo the calls for strong outreach for this program and ensuring a smooth distribution of the funding. And then in closing really wanting to just note the Lung Association urges you to move this plan forward without delay and then really turn your attention quickly to the important calendar of regulations coming up before you, including commercial harbor craft today, SORE, ACC II, ACF and others that will put zero-emission vehicles out into the public, so that we experience those clean air benefits as quickly as possible.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Tom Jordan, please unmute and begin your comments.

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TOM JORDAN: Good afternoon and thank you for taking my comments. First of all, I want to thank ARB staff for developing this historic spending plan, which we were -- are definitely supportive of. I do have a few comments however that I think could improve the recommendation that's before you today.

As you're all aware, the valley faces significant air quality challenges and we're also home to 20 of the 30 most disadvantaged communities in the State. Sixty-seven percent of the valley census tracts fall under AB 535 and 1550 as priority communities for funding. Given our demographics, programs like Clean Cars 4 All are critical for EV deployment and for the State to meet its EV goals throughout the state.

Historical spending on EV deployment has been concentrated in the more affluent urban parts of the state. This wasn't by design necessarily, but it does have to do with demographics. CVRP, the largest and longest funding program for EV deployment, about 10 times the amount of money that was -- has been claimed by the valley has been claimed in the Bay Area. The Bay Area has received about 300 million in CVRP vouchers, South Coast about 400 million, and the valley about 30 million.

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We see Clean Cars 4 All as a way to start to 1 close some of those funding gaps, particularly given the 2 valley's demographics. The valley was really a pioneer in 3 the development of the program that became Clean Cars 4 4 All. And over the years, 81 percent of our funding has 5 gotten to residents who live in disadvantaged communities. 6 7 Ninety-one percent of our funding has gotten to residents 8 that are 225 percent or greater below the federal poverty level and we have always expend the allocations we've 9 received. We've made changes to our program to allow it 10 to scale and we would respectfully request that a 11 significant portion of the reserve be allocated to the 12 valley's program up front. 13 Thank you for the opportunity to comment. 14 BOARD CLERK ESTABROOK: 15 Thank you. 16 apologies for those that I overlooked. 17 Chair, that concludes the commenters. CHAIR RANDOLPH: Thank you. 18 19 Staff, are there any issues you would like to raise in response to the comments before I close the 20 record on this item? 21

Okay. Let's move to Board discussion. For those

EXECUTIVE OFFICER COREY: No additional comments,

Thank you.

CHAIR RANDOLPH: All right.

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Chair.

Board members who are on Zoom, if you want to participate in the discussion, please feel free to click the raise-hand function and let us know you would like to speak. And let's start -- I'm going to start to my right. Did any Board members here want to speak?

Board Member Pacheco-Werner.

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BOARD MEMBER PACHECO-WERNER: Thank you, Chair.

Thank you -- thank you so much to staff for this bold

plan. I want to make a couple of comments on equity and

how we -- how we think about the allocation of resources

based on equity, because we have to think about the

historic and current racism in the way that our cities and

our counties, urban and rural communities, have been built

that really do keep that vision that we're working towards

around zero emissions further away for some than others.

And I think that this funding plan should reflect that

current reality and should think about how we ensure those

that are -- that are most disproportionately ad -
disadvantaged are being prioritized for this measurable

change that we are anticipating with this funding.

And so I do want to say that I support the comments about how to streamline the application process, to make it as low literacy and as low barrier as possible to achieve the outcomes that we're doing. I also really support thinking through how we ensure that we're thinking

about those rural communities as the targets of some of these programs, and even -- you know, when I think about the Clean Cars 4 All, even as early as last week in the weeknight events in the rural communities in the San Joaquin Valley, there were: -- in weeknight events during COVID, there were over 300 people last week that showed up with interest to participate in this program. And I think we have to ensure that this funding is being able to reach people in as low barrier as possible for those that actually need it.

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And I think that, you know, definitely as Tom noted in the San Joaquin Valley, there is a strong effort to ensure that those go -- those funds go to the right people. And I hope that as we open that up, we will -- we will make that a North Star and actually an evaluation requirement for how this money is really being spent, because I don't think that opening it up low barrier to get as many applicants as possible is the right -- is the right thing. I think opening it up, but ensuring that it's being reached to those who actually need the funds should be the North Star, and should be the evaluation metric that we should be looking at as success for the program, but also thinking about the unintended consequences of opening it up without further funds and the -- and always thinking that the endpoint how do we

create something more equitable, but that also doesn't harm people in the long run.

And so giving an expectation that there will be funds everywhere and there -- and if there's -- if that doesn't get delivered, what is our back-up plan to make sure that people don't feel left out or left in the dust, you know, waiting for something that was promised that we didn't deliver on.

And I know that staff have worked so hard to improve all of these programs and just really thank you for that. As we think about equity and we think about that zero-emission goal, we must keep rural communities, low-literacy communities in mind.

Thank you.

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CHAIR RANDOLPH: Thank you.

Dr. Sperling.

BOARD MEMBER SPERLING: Yes. And I support all those ideas. Let me kind of give a science perspective on this sticking in my lane here. So here we are -- okay. First of all, CARB is founded on science. That is what makes us special. That is why we have so much credibility. That is why the Legislature gives us so much money to allocate. And, you know, yesterday, we -- or today, we did the Haagen-Smit awards, you know, just another reminder

So I just have a few thoughts here. Okay. I have two that -- well, one that no one has mentioned, but I'll bring it up, and that is - except indirectly - we have all these new programs, and new types of initiatives we're doing, and new funding programs and demonstration programs we have. And I don't see that we're setting money aside to evaluate which of them are working, which are not working, lessons learned. You know, I see there's the clean -- you know, clean mobility programs, the off-road incentives. There were all these demonstration projects. Somehow, it seems like, you know, making sure we're investing our money wisely and especially looking to the future. You know, that's probably a programmatic thing. I mean, I'm not sure how that's handled. know, I mean, it can be built into every program. think we need to be thinking along those lines more.

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Cost effectiveness. So here's one -- I should have talked to staff beforehand, but I got caught by surprise. This idea of raising -- and it's only for the Carl Moyer Program, as I understand it, but raising the cost effectiveness ceiling. It's really high. I mean, those numbers -- it's already high. I mean, I've been involved in these kinds of studies and research over the years, and it's already -- the number that's being used is already high. And now it's been proposed higher. And I'm

just kind of curious if there's an explanation. I know -I mean, if it's just because these are new innovative
projects or technologies, then, you know, that shouldn't
be treated the same way as a cost effectiveness metric
used for program -- other programs or other investments.

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So if there's a simple explanation for that, I'd be interested. I did kind of look at -- up some research papers from the past and none of them have NOx cost effectiveness numbers anywhere near what we're using. And I worry about it, because even though it's just for Carl Moyer, it could -- does this mean it becomes a precedent, you know, for other investments that we make in other programs?

there's a lot of ways of thinking about this. So, you know, the staff is trying to, you know, make the money go as far as possible, and I understand that, but I do sympathize with what, you know, Eileen Tutt and some of the others are saying that, you know, you keep making these changes and it makes it more confusing. The CVRP --you know, I told them when they called me, I said, you know, if I was emperor, I would throw the whole thing out and start over from scratch, you know, in how we provide incentives. We're not doing it very effectively or very efficiently. And, you know, there's lots of ideas, but it

involves the Legislature and it's more complicated. And we work with what we've got. So okay, for here, I'll go on.

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But with the CVRP, I think we do need to be hesitant about keeping -- changing the rules. It already is not relevant. You know, I mean, it's already not being utilized well. You know, when you have a program where it's not a point of purchase, you know, the research shows it loses half to two-thirds of its value right away, if it's not at point of purchase, but we have to do it at point of purchase, because now we have all these, you know, means testing going on, and so it gets complicated. So I know I don't have the answer that if we keep the current structure how to make it point of purchase. There was a demonstration program -- an experiment in San Diego, and I just heard offhand that it wasn't real successful. I'd be -- you know, I'd want to make sure that's really a correct assessment.

You know, the demonstration program was to find out if you could get people means tested beforehand and when they walk in, you know, they get the point of purchase rebate, which is the way it should be. You know, the Clean Fuel Reward, you know, works that way for us. The federal government is even worse with tax -- using tax credits, but that's another story as well. Although, I do

sympathize with the idea that maybe we ought to find out what the Feds do, you know, before we make a final decision or at least for future years.

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And I do have one specific one. I do disagree with taking out PHEVs, plug-in hybrids. I think that the research is starting to show that the first 50 or 60 percent of the BEVs is probably going to be relatively easy. But when we get to the last 20 or 30 percent, people living in apartment buildings, people having you --know people, just ideologically opposed, we're going to have a -- run into a lot of problems getting to that hundred percent. And I think we need to keep PHEVs in the mix, because I think that it's going to play an important -- not a huge role, but an important role, if we really want to get to a -- you know, and people that lived in disadvantaged communities, you know, we're hearing from them - I think someone testified to that effect - that PHEVs are really crucial for them.

You know, it's partly we get to second and third vehicle -- if you have three vehicles, it's easy to have, you know, one or two BEVs, but if your only vehicle -- you only have one vehicle and you don't have good charging available -- so anyway.

And just one little thought about the ag burning issue, and that is one of the biggest challenges for us in

decarbonization is going to be aviation fuels, because we need liquid, and probably shipping. And we need liquid fuels that are low or zero carbon. And some of that ag waste, I know, you know, it's expensive gathering it and there's been issues on the economics of it, but I sure hope that we can keep that on the table as an option, that they can -- we can have facilities that would convert it into liquid fuel for use, because, you know, it is -- it becomes a net -- you know, less than zero carbon fuel when you use the waste like that.

And, you know, the same argument is going to be made with forest waste and so on. And it's a tricky one, so I'm just saying, you know, let's keep it on the table and not foreclose it. It could become important in the future.

Thank you.

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CHAIR RANDOLPH: Thank you.

Mr. Corey, did you want to respond to any of the questions that Dr. Sperling raised?

EXECUTIVE OFFICER COREY: Yes, Chair. Very briefly and then I'll ask also briefly for Dr. Vergis to cover the question about cost effectiveness and PHEVs.

The point Dr. Sperling made about metrics, which is really an important one, there are a range of equity-focused programs that really have emerged from the public process

we've gone over through the last year and really beyond that in terms of the fact that a low-emission vehicle, a zero-emission vehicle isn't the only response to enhanced mobility, enhanced access in communities. And those concepts, ideas emerge from that level of engagement.

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But as you noted, these are really new programs. Some of them are experiments, I mean, frankly, and the data and the metric elements in terms of how to monitor and assess effectiveness, what works, what doesn't work, where adjustment is warranted down the road, a few different means by which to do that.

One of the grant agreements that we're putting in place and the kind of metrics that need to be reported as part of those receiving those grants, the other is a contract in play -- that we've put in place in terms of university, to also evaluate the data that's coming from these various programs. So those are just key, key elements as well our response and work with the -- with respect to our response to the State Auditor's work. So that's continuing to play itself out and will be really important. So I really appreciate the observation. I think it's correct and right on.

To the CVRP point, and I think you recognize this and I think many on the Board did a well, it's a three-year appropriation, \$515 million. A number of, you

know, budget bills in the past, budget language, some real challenges, right? Some success. What is the success?

We're seeing a lot more EVs produced, an uptick. Great.

Great story, but trying to surgically direct those dollars even more so to low and medium income folks. We're working through the implementation of that program and clearly also trying to operate within legislative direction and operate within our means, realizing that given the rapid uptake I think that we're going to continue to see on EVs, it's going to require ongoing assessments and reports to you all in terms of how it's going and potential adjustments over the -- over a period of time.

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So it's a fair observation. The adjustments that you saw are intent to be responsive to the direction we received and obviously to keep you all posted throughout implementation. And with that, I'm going to briefly ask Syd to comment on the cost effectiveness on Moyer, because that went through a public process as well, as well as the PHEV element.

MSCD DIVISION CHIEF VERGIS: Yes. Thank you, Mr. Corey. Chair and members, so on cost effectiveness from Moyer, definitely hear you. One of the things we've been seeking to do is really provide that balance. What we've seen is that higher amounts are really needed to encourage

people to choose these kinds of technologies, not only choose these technologies, but also scrap a vehicle in exchange for this program.

What we're really looking to do is make sure that -- and asking to increase the cost effectiveness for trucks is really asking you to help ensure that we get those accelerated reductions for the 0.02 and zero-emission truck engines.

One of the things that's really changed over time with respect to our legislative direction on Moyer has been that the Legislature has also modified statute to allow you, the Board, to establish cost effectiveness limits, really based on cost of technology. So, yes, we are asking to increase cost effectiveness today, specifically targeted at a narrow sector of truck technologies.

CHAIR RANDOLPH: Okay. Thank you.

Board Member De La Torre had a comment and then I'll go over to the other side of the -- oh, sorry, Dr. Eisenhut -- Board Member Eisenhut, sorry.

There's so many doctors.

(Laughter.)

BOARD MEMBER EISENHUT: Thank you for the promotion.

(Laughter.)

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BOARD MEMBER EISENHUT: I think I'd first like to just acknowledge the place that we're in, the Mary D. Nichols Building, which as all of you know was dedicated yesterday and creates a future pathway -- not just a place for us to meet, but a future pathway for the work that we do. And there were -- and the health improvements and a reduction of climate impacts that we will achieve.

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And as I toured the building yesterday, guided by Vice Chair Berg, the point was made in -- by one of our -- one of our co-tour guides that you can't regulate what you can't -- what you don't measure. And this building is all, I think in no small part, about that measurement. And I bring this up, because I want to -- I just want to add my support, and staff has responded, my strong support to Dr. Sperling -- Professor Sperling's comments about the necessary metrics for evaluation of the programs that we're acting on today. And I speak -- I speak to these programs for the -- I endorse the programs. I will support the programs. And I look forward to the feedback that we get, the metrics that are necessary for us to evaluate how we've -- what we've done.

I also would like to -- it's -- in a way, it's a blessing and a curse following my colleagues to the right, because they said what I wanted to say. I'd like to affiliate myself strongly with the comments made by Dr.

Pacheco-Werner and her comments about equity.

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I have two very narrowly focused questions for staff. The first I think of counsel and there -- and i'll use my abbreviations, but there are CVRP 1099s, which were referenced by a number of commenters. And I'm assuming that this gets into federal tax law, but I'd like to hear that clarified by counsel.

And I also -- one of our commenters, and I didn't -- my notes don't reflect his name, but he -- his comments were focused on the marine sector. And as he was commenting, I was watching staff, and it appeared that staff was interested in -- was prepared to offer interested comments in response to that comment. So I just want to open the door, if that -- if I read that correctly, I want to open that door. So those are my comments. Thank you, Chair.

CHIEF COUNSEL PETER: Thanks for the question,
Mr. Eisenhut. So I'll address the 1099, which you're
correct, is the tax implications of this. And this is an
important policy issue, because, you know, it's what's the
value to the people receiving the credit. And so if it's
obviously -- and there's also a uniformity issue, if it's
being treated differently by, you know, different
districts, then that's also not fair. So what we did was
when this -- several years ago actually, we started

working with the Attorney General's office about this issue and got some initial advice from them.

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But as though we're much experts on air quality law, we're not an expert on tax law, and CARB cannot give tax advice. We would actually not be a party to the transaction. The money comes from the districts to the recipients. What we have been doing is working with the Attorney General's office to talk with outside tax counsel to talk with the districts' outside tax counsel and explore some options So we're very actively involved in that.

Typically, what you do is you get a letter from the IRS making a determination, and that would give us some, you know, equity issues. There's some things in the report that talks about the value of these -- of these programs, which I think would be useful for the IRS to look at, you know, kind of what the purpose of it is. But there's different kinds of incentives that come from different states to their -- to their citizens. And so it's not as easy to unwind as you would think, but we are in the process right now of moving in that direction to get some clarification on that.

CHAIR RANDOLPH: Can I briefly add something before we go to the next question, which is my understanding is that different districts have sort of

reached different interpretations about these issues. And so we have Board members from across the spectrum, in terms of the district's interpretation. So I would encourage those members of boards whose districts have taken perhaps a slightly more conservative interpretation to perhaps kind of dive into that issue and maybe have some -- convene some conversations on this topic, because I think it's a -- I think it's a really important topic and I think we need some consistency and clarity on it.

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CHIEF COUNSEL PETER: And just one follow-up on that. You're exactly right, Chair Randolph, that there are different interpretations, but there is no clear determination from the IRS and their value -- and their opinion is what counts. We want to give the right information to them and then, you know, people are trying to give the best advice to their own different districts. But you're right, you're exactly right. There's -- people have reached different conclusions. Meanwhile, of course, as you know, the law doesn't stay static and it's changed actually in the last year in terms of other related cases that come on.

So it's a complicated issue. We're, you know, embracing it and trying to move to a speedy resolution.

CHAIR RANDOLPH: Great. Thanks.

Okay. Dr. Vergis.

MSCD DIVISION CHIEF VERGIS: Well, thank you for the opportunity. So to clarify on marine vessel funding, marine vessels have been and continue to be eligible under the Carl Moyer funding pot. They could also be funded as part of our demonstration program. And if that technology becomes commercially available, manufacturers can be eligible in the CORE Program as well.

So thank you.

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CHAIR RANDOLPH: Thank you.

Okay. Board Member De La Torre.

BOARD MEMBER DE LA TORRE: Thank you.

I wanted to just speak on CVRP and Clean Cars 4

All. The -- I also wanted to be supportive of the comments about including plug-in hybrids. For the Central Valley, plug-in hybrids are a very, very important component of what they're doing there. And I want to make sure that we revisit that in future iterations.

I also want to make clear at the outset I'm supportive of this. We have to move ahead, so that we can start having an impact with these dollars in -- throughout the state.

So with CVRP, \$550 million is going to go fast. We've had these discussions over the years, and the money always goes very, very fast. The program is oversubscribed and we're limited by the dollars that we

So acknowledging that, I did have a conversation with a legislator who was concerned about communication with the Legislature, and the budget committees, and the relevant policy committees. So I just want to make sure that on a going-forward basis, we are engaging that staff, you know, even through our public processing -- engaging them to be part of the public process. Obviously, we can't, you know, reach out to Committee staff on every regulatory item. If we do, otherwise we'd be doing nothing else. So I understand that, but certainly sending an invitation to public processes for regulations or, in this case, spending decisions, you know, we need to make sure that they have a seat at the table when we're making these decisions. Obviously, also with our two ex officio members, you know, we always want to make sure we're communicating with the legislator -- Legislature.

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Related to that, I would ask that we have a status report on where we're at on CVRP in May of this year -- early May, before the May revise comes out, so that it can inform the Legislature of where things are at and, you know, maybe they add some money to the pot as a result of the statistics that we're able to share. So I would ask for a May report for this next year and maybe on an ongoing basis.

Clean Cars 4 All, I was going to mention the 1099

issue. I am absolutely convinced that the public benefit there -- and I'm not a tax lawyer, but the public benefit there is tremendous. And it is a significant disincentive to lower income folks who could get walloped with the tax liability that the 1099 would represent. So I really believe that -- and I'm familiar with the conversations Ellen mentioned with the Attorney General's office. I'm very supportive of that. We need to have a blanket policy statewide. And I strongly believe a 1099 should not be required for the Clean Cars 4 All Program.

Thank you.

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CHAIR RANDOLPH: Thank you.

Board Member Hurt.

BOARD MEMBER HURT: Thank you, Chair.

So where do I begin? This is a really expansive funding plan. First off, thank the staff for the presentation. And I appreciate that we're thinking about how to improve the incentive programs. It's really our lifeline to clean air, improved air quality, and our climate goals. I can quickly state that as it relates to the ag burning issue, I support staff's recommendation. It think innovation is the key and R&D investment needs to happen and work in tandem. We need to be bold in trying alternatives. When I was at COP26, I was exposed to different products and processes around the world that

people were trying to pursue. So I hope we gather with those folks and put our minds together.

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And to Dr. Sperling's comment about ag waste, that was one of the topics that they discussed, what -- how can we do double duty with the burning and then put it into needed fuel.

As it relates to the CHIRP, the Climate Heat
Impact Response Program, I think this really reiterates
the importance of microgrids. And I hope that we do our
job investing in community resilient centers. I think
that will be really important when it comes to mitigation.
And then also tracking, hopefully not too many steps
backwards, we're working by implementing these different
programs.

So I know I'm a bit -- a newer member, and I'm learning and analyzing all these programs, but I have to say that I am a little concerned, and I look forward to staff painting a bigger and clearer picture of how all these incentive programs are working together and in harmony, and that we really are reaching those who are really in need. And by not just telling me that it does, but providing examples and statements of equity, but showing me in the numbers and the demographics on who -- who is receiving this and who's not receiving the help they need in the funding.

I think a thorough analysis, to Dr. Sperling's point, needs to happen with this suite of incentive programs. I question whether they're working in harmony. I want to think well that the staff has thought about all those pieces and they work together in the puzzle, but I have question marks, especially when I talk to some of the other air districts, and some of the concerns that they still have, even though we are trying to work together.

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I also just want to highlight, you know, we have a generous budget from the Legislature and the Governor, and we have unprecedented amounts of money to fund clean air incentive programs. And so the way I look at this, we have one bite at the apple and we've got to get it right starting here at the very -- at the start. And so I feel like an analysis needs to happen, and I'd like to see that sooner than later. So I just want to underline that.

There was talks about the 1099, our district -our air district is one of those that requires that. And
I know, in our case, it's a legal consideration. And I
agree that there are equity issues wrapped in that. That
legal consideration is around federal tax liability, but I
want everyone to know that I am working thinking and
thinking closely about how to improve that space, because
we want to get the funds to those who need it the most.

I'm also aware that Senator Becker had SB 771

trying to get rid of the 1099 opportunity or requirement. It didn't get out of the Senate, so maybe it will come back again in the next legislative period. We will see.

All in all though, I really appreciate all of the work that's been put into this. I again am concerned about the equity pieces, and us not just saying that we're going to do equity work, but showing me how that equity is being breached. I have not seen it in numbers, demographics. And so I am deeply concerned. And I look forward to learning more from all of you on how we are truly being equitable in these incentive programs. That's all for now.

Thank you.

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CHAIR RANDOLPH: Thank you.

Supervisor Fletcher.

BOARD MEMBER FLETCHER: Thank you.

I'll be brief. I don't want to repeat a number of the comments that have already been made around accountability and tracking. I just want to point out two things. One, in San Diego, we're finally getting it together on Clean Cars 4 All, and I'm real appreciative of seeing that in here. As we move forward with that, we are not requiring 1099s. We've done our analysis and we don't think that they're necessary. Obviously, solidifying that, so it's a statewide policy would be better, but as a

district, we're starting out in what I think is the right position, but fully supportive of efforts to get absolute certainty surrounding that.

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And then the second thing is we've looked at a number of things. We know a lot of these programs need more funding. We know they quickly run out. We know it's not enough to meet the need. I think we've got to think as a body and then as individuals who want to advocate for things this appearing to be a good year to try and go fight for funding for things, but you probably want to hit the ground in January with what it is you want, where you within the money to come from, and what you think it ought to go to and finding legislative sponsors.

And so I would just encourage us to the extent we want to go try and get additional funding for things that are priorities to move rapidly to try and identify those priorities, projects, issues and get a coalition behind them, but that's it. Fully supportive of the overall effort and really appreciate all the other Board members' comments and thoughts.

CHAIR RANDOLPH: Okay. Thank you. Any additional Board member comment.

Board Member Takvorian. Oh, sorry. Okay. So Board Member Takvorian, then Board Member Riordan, and then Vice Chair Berg.

BOARD MEMBER TAKVORIAN: Okay. Thank you so much. We were going to have that -- a fancy hand raising system, I thought. And so poor Chair Randolph just still has to do this thing with her neck, so I apologize to you, but we'll try to do better.

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So, yes, I want to add my appreciation and my support for the funding plan. I think it's really very important. I think it's wide ranging. I -- having heard this for several years, I do think that staff and the community are really listening to a lot of the comments that have been made over the years, and that I see that some of that evaluative dialogue is being baked into the plan. So I think that that's an important thing to raise.

That said, I absolutely agree with Board Member

Hurt and Sperling's comments about how do we look at it in
a more outcome and metric based manner? And I think that
really relates to -- excuse me -- how we -- what we expect
the outcomes to be.

And I think it has to do too with some of the comments that we've heard about, you know, selling out the program in nine minutes is, in my mind, not the goal, right? Getting the resources to the people who need it the most is the goal. And so — or should be the goal. And so how do we arrange a program that actually does that? And so I just think we have to think about our

metrics and about what our desired outcomes are. So I absolutely support the concept of better evaluation, but I do want to acknowledge that I think -- I've seen the program change over the years. And I think having a 60 percent to priority communities is remarkable.

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I mean, I remember fighting about 15 percent, and about 25 percent, and about 35 percent. So honestly, you know, maybe that's the benefit of living longer or something, I don't know.

But that's to me the only thing. But I certainly -- I see it. I think it's happening. I think it's changing. And so having said that, again we have to be sure it's going -- it's truly going to those communities and truly benefiting them.

So I do agree with the equity comments by Board Member Pacheco-Werner. And in my view, the CVRP income levels, while I appreciate the phasing down, are still way too high. We're talking \$300,000. And I understand that it's coming down, some, but \$300,000 for a household is not anywhere near low income, in the -- I don't know, in my community. So I think that we're still really not hitting at the folks that really need the help and that's just one example of it.

And again, related to outcomes, new cars are still out of range for many people. And so if they're out

of range, then what are we doing to assist folks to purchase the used cars? And I don't mean just financing assistance. Like how do we provide incentives for those folks, in the same way that we do with new cars? I mean there's nothing that special about new cars really. So why can't we do that kind of an incentive program. I think for used cars as well and perhaps that's something that the Legislature could begin to take a look at.

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I'm very appreciative of Clean Cars 4 All finally coming to San Diego. And I want to thank Board Member Fletcher and the San Diego Air Pollution Control District for finally taking the charge on that. I think it's -- I think it's exciting and something that we really need.

I agree with Member De La Torre about the 1099 issue. This should be a statewide standard. I don't understand why we should be having districts make this determination and I appreciate Ellen's comment on that and I'm guessing she would like a statewide standard as well.

So the changes to HVIP, I think, are very important. I appreciate -- and again, I think this reflects changes. The focus on small fleets and the owner operators, I think, is a welcome innovation. And I think that is the staff hearing what EJ communities have been talking about for a long time. It's those single owners and independent operators in our communities that are our

neighbors that really need this help.

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And so they're not going to be in that first 10 minutes, if that's what happens. We need a robust outreach to them. It's a different kind of outreach than maybe any of us have ever done before. You know, how do we find those truckers, how do we get them engaged, how do we help them fill out the application, and really work with them. Changing from a first-come first-served model to a more focused and intentional process is critical.

And, you know, I agree in part with the overall sentiments from the Port of San Diego. I think we need to -- we need to open it up and allow for a more diverse way to get into the process and get into the program.

I'll say that -- and I said this to staff, and I just want to say I think that staff has done an amazing job with this program and with many others. I just want to say out loud that with this large infusion of funds, and I know you know this, staff -- we need to have more staff. We need to have more resources. We really need to ensure that we've got -- staff has the support that they need to make this happen, because more money just doesn't take care of itself. It's more work.

So I really want to acknowledge that. And I appreciate that staff is reaching out to community-based organizations. I think those are great partners, but I

also -- again, I still think it's more work for all of you. So I want to figure out how we can support that.

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And last, I have concerns about the CHIRP Program. I think this is increased pollution, especially in environmental justice communities. And I'm -- I look forward to figuring out new ways to mitigate those -- that pollution. But I think it really is a downside of what I don't think are emergencies. I think this is -- this is all going to be or is pretty normal at this point. And so we really need to think about it that way. So overall though, it's a great plan and it's really exciting to see this go forward. So thank you so much.

CHAIR RANDOLPH: Board Member Riordan.

BOARD MEMBER RIORDAN: Thank you, Madam Chair.

To the staff, I want to add my admiration for an excellent report. And I certainly appreciate your thoughtfulness.

And to follow along with Dr. Sperling, I really believe analysis is very important ultimately to see what is working, how we can improve it, and what we need to discord. There's no problem, in my mind, of once you have made a determination that something is not working, let's discarded it, let's pick up, and work on something that's more effective.

Now, here's my question. My question is just clarifying, and speaking from a perspective of an air

pollution control district, there was on the part of the CAPCOA and I think also the Bay Area, just what we are talking about with -- whether we are going to administer these credit vouchers, or equipment vouchers, or are we going to work with our districts who have, in many cases, already programs going. And let me -- I don't know who to direct the question to, Mr. Corey, but maybe somebody can give me an answer.

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EXECUTIVE OFFICER COREY: And let Syd to add to it. I think it may be a broader question, but part of it, I think, is about the Small Off-Road Equipment Incentive Program

BOARD MEMBER RIORDAN: Exactly, yes.

EXECUTIVE OFFICER COREY: And you're correct that we looked at running those dollars through CORE, but in collaboration with the air districts. In fact, we're working with the air districts right now on a -- how that partnership could look like from an Administration standpoint, kind of tapping into the experience that many of them have had running zero-emission lawn mower programs and other related.

So we're working through the mechanics. I don't know -- we're kind of working through what that exactly looks like. Some districts have those programs, some do not. We're trying to learn from that experience and

figure out the best mechanism from an overall implementation standpoint.

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BOARD MEMBER RIORDAN: And I would encourage you to continue to do that, because I think some districts do have some excellent programs and they're already functioning. And I think that we just need to build on that cooperation and have standards. I don't mean that we shouldn't set standards, but then turn it over to our districts to administer, because they know the areas, and they know where the equipment is needed, and also the people — the outreach to some of these people who are particularly maybe not in tune with some of these programs. They can reach out to them and encourage them to come in and make that exchange.

Thank you. Okay.

CHAIR RANDOLPH: Thank you.

Vice Chair Berg.

VICE CHAIR BERG: Thank you very much. I really appreciate all my fellow Board members, because I've been crossing off --

(Laughter.)

VICE CHAIR BERG: -- issues and I don't feel the need other than to say really great comments and I'm very supportive. So a couple of things, one on the CVRP. I really would recommend that. And I am going to be

supportive and vote for the funding plan. But let's decide where we need to go and do it, not have these step downs. If we look at the 515 million and you divide it by 3, it's 171 million we have sold out of that level of funding in multiple years.

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So we know that when we're getting every citizen into electric vehicles, we do not have enough funding no matter what you set the level at. So I appreciated the comments that maybe an overall plan looking at it differently stepping back and how we are going to look at these outcomes. And I'd like to speak about that in just a few minutes.

I do also really do want to support my -- support fellow Board members on the hybrids. I am concerned about that for all the reasons that were stated. But I'd like to jump to Carl Moyer. We heard several requests and appreciation for opening up Carl Moyer on the on-road as well as streamlining and making the program easier to -- for all parties from districts and to those using it. And we also heard a request to maybe reengage the stakeholders as we have done in the past. And I would be supportive of that. We have done that on three different occasions. And the two that I was involved in really bringing all the stakeholders -- and we talk about all the stakeholders for my fellow Board members that are new, we were talking

about not only CAPCOA members, but also users of the program as well as NGOs all together. We had 50 people regularly attending meetings the last time we put this together, and it is -- along with our staff.

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So it's really effective at being able to understand our differences, build consensus where we can, and when we do come back to the Board, then there's just a greater synergy around what we can do. And so I absolutely would support that, if that's the desire of the Chair.

You know when we talk about these plans, it's really difficult to have everything but the kitchen sink in one plan. It's hard to think about it. How do you —how do you move from innovating and getting companies to invest and to push forward versus equity. Two very, very different outcomes. Two very different groups of needs. And so as a Board member, what are you asking me to prioritize?

Both. But it's hard when we have it in front of us as one package. So I think it would really be worthwhile, Mr. Corey, if we were to take the Board comments about outcomes and analyzing, but put them in their respective outcome buckets, so that under our innovation and our early adopters, when we talk about small businesses, small businesses cannot afford to be

early adopters. I can attest to that. In the -- in the Truck and Bus Rule, six of my trucks came up for lease and I decided to go into the 2010 right out the gate, because I was going to be an early adopter. One got recalled for being a lemon. It was down so much. Three of them spent a double digit amount of time in being repaired, because it was early.

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We need companies to go through that pain to get the next generations out. So I think the outcomes have to be who are the companies that can afford and -- to be part of these, and we're going to incentivize them, because we want them to go through that hurdle. And then how are we going to have funding actually to implement and get the rest of us adopting? Now, what can be helpful is infrastructure is infrastructure. And we need that infrastructure in place for regardless of what it is your time to adopt.

So I think if we could look at this, from an innovative perspective, and how we need to go through these generations of technology quickly, we've got to figure out what doesn't work and we've got to get it fixed, because mainstream cannot be working with technology that doesn't work. They won't tolerate it at any level. They can't. And the lower income and EJ communities can tolerate it less, because they have so

many things that they have to deal with every single day.

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And so I think we do need to be thoughtful. And then if we had our equity, because being left behind, we have a -- maybe once in multiple generations opportunity not to leave communities behind and maybe we can actually get caught up on some things.

And so how are we going to do that? What is the outcome for that? What is the measurement for that? And so that's really what -- let me see if I have any -- I -- you know, boy, Madam Chair, whatever I can do also to help on the staffing needs, okay, and resources. You know as clearly as anybody we need to have those. And doing this analytical work is time intensive. And to do it right is time intensive.

So I really appreciated Board Member Takvorian for bringing up -- that up, because that couldn't be more true. And so I think, other than the low NOx follow-up programs, whatever we can do to be open to what technology we've already invested in and should follow up on, I hope staff will be able to be open to that, and -- because it sounds like there's still exciting things going on.

And so with that, staff, it was a yeoman's job. Awesome work, and thank you so much.

CHAIR RANDOLPH: All right. Thank you. Senator Leyva.

SENATOR LEYVA: Thank you, Madam Chair. Well, I have to say it's just such an honor to be here and be a part of this Board and have the opportunity to help all of us move forward. Hearing yesterday from everyone about what CARB has done over all the years is really remarkable. And I think that we're at a point where we can continue to do remarkable things. I have a couple comments and a couple questions.

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Staff, thank you. I don't know all of you yet, but I appreciate everything you do. Thank you for the briefings that you give me to help bring me up to speed. I'm sure as I go along, I'll have even more questions.

You know, I said at the last meeting that I think we need to be bold. And I'm going to say that again, because we're probably going to have another record budget this year in the State of California. And a lot of the times when we have a record budget, all we can do with it is one-time funding. So what do we do with that one-time funding? How do we make sure these oversubscribed programs we put the money there?

One of my questions is -- or kind of a comment question, the oversubscribed programs, have we ever kind of put them -- ranked them in order of which ones are most oversubscribed and does that mean if it's the most oversubscribed, it's the most used, is it the most

beneficial to the community to the environment. So just something to think about.

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And I think about Board Member Takvorian what you said, nine minutes. Oh, my gosh, a program being oversubscribed and sold out, so to speak, in nine minutes. To me, that's one where maybe we need more funding. And I am very excited to be someone who can help vote on that and be a part of that.

Equity. As the Chair of Senate Education, I look at everything through an equity lens, every piece of legislation that comes to me. And I'm just learning about the 1099 issue and I'm a little confused as to why some counties think that they don't have to do it and others do think they have to do it. So -- and I agree, we're not tax -- you're not a tax attorney, but we should find someone who can tell us why some counties think we should do it and we don't think they should do it. I think a 1099 is a terrible idea and it's an equity issue.

So my actual question is, this is an area I'm very unfamiliar with and it's about the wire-grown crops. And these -- it is very difficult, from what I understand, for these to be chipped. Is wire -- are wire-grown crops still being used? Is there another technology or is this an old technology, so we don't have to worry about that and we're kind Of phasing it out or do we need a different

technology, so that we can use the chipping program on that?

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And then one last comment, if -- and if this is not the meeting we're going to discuss this in. I think it's next month. But I hope some of you saw the article in the Los Angeles Times, "California has a new battle plan against environmental justice and the nation is watching". It came out yesterday. It's an excellent article and it talks about where I live in the 20th Senate District, physicians call it, "Diesel Death Zones". I don't think it gets much more clearer than that that we have a lot of work still to do.

So thank you, everyone, for what you do. I truly am honored to be a part of this and try and be helpful in solutions. So I guess my real only question is about the wire-grown crops.

EXECUTIVE OFFICER COREY: Thanks, Senator. I'm going to call on Michael Benjamin, a Division Chief, to give a little bit background context of deeply embedded wire in --

CHAIR RANDOLPH: Yeah. Board Member Eisenhut wanted to speak to that.

EXECUTIVE OFFICER COREY: Oh, I'm sorry.

BOARD MEMBER EISENHUT: Thanks, Senator, for the question. The -- I'll try and summarize this. Those

crops were probably planted 20, 30, 40 years ago. And there is -- there was a cultural technique -- I won't go into too much, but the canes of the vines were trellised and wrapped around wires. And as they grew older, they -- the wire was embedded in the vine itself. And that technique is no longer used in today's planting, but those vineyards are still with us and they're reaching the end of their economic life.

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And so when we discussed this previously when we took the action to end open ag burning, we knew that those would be with us. They're reaching -- as I said, they're reaching the end of their life. Many of them are being -- and I can't remember the acreage. That's why I'm fumbling, but they're a decreasing percentage of ag burning.

And the issue is with that embedded wire, if you chip those vines, then you end up with the wires still in the vince. And if you chip it and disperse it, as you would do with an orchard, you end up with millions of little nails strewn about the -- over the acreage.

There -- there are -- there is an effort to engage in the technology of chipping and using magnets to pull the wires out of the -- of the cellulose debris, they're only about 60 to 70 percent effective. And so you still have those wires that are -- that are -- would be

dispersed back.

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The curtain burners that the Legislature invited us to evaluate, there's some discrepancy in the evaluation of those, but the consistency is that they generally are expected to reduce emissions over open ag burning by about 80 percent.

And this is a transitional kind of -- obviously, by December of '24, it will all be over. But this -- this technology, the curtain burner, is intended to bridge that gap to that time period.

SENATOR LEYVA: That was very helpful. Thank you.

I mostly just wanted to make sure, we weren't still doing that practice, so that at some point, we would be done with it. That was very helpful.

BOARD MEMBER EISENHUT: At some point, we're out, yes.

SENATOR LEYVA: Yes, very good. Thank you so much

CHAIR RANDOLPH: Thank you. And before I call on the next Board member, your question reminded me of one of the comments that someone made about requesting the reporting from applicants who want funding for combustion alternatives to show that they made an effort to utilize the non-combustion alternative. So I would encourage the

district and its program administering the funds to include a provision that would -- that would gather that information and request that showing from the growers.

Okay. Supervisor Serna.

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BOARD MEMBER SERNA: Great. Thank you, Chair.

First, I want to add my thanks to staff for doing tremendous work on this plan. And it still takes some getting used to to see resolutions that adjoin our actions that are measured in the dozens of pages. In the world of county governance, we -- our resolutions aren't nearly as detailed in many instances, but I did carefully read the resolution that goes with this action. And I noted on page six, there's reference to a response to SB 150, in particular, the interest and charge to reduce VMT.

What I noted though was that there's plenty here that references trying to expand transportation choice, but there's really not much in the way of referencing better land use planning. And I'm just wondering is it because the -- of the nature of the legislation that's referenced in this particular whereas, that we don't go there? Because it seems to me that any time we are going to, as an agency, reference our charge and responsibility to do what we can, to encourage the reduction of VMT, we should be necessarily incorporating into our -- whether they be resolutions, plans, or other documents, a

reference to working towards more efficient land-use planning as well.

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And so I don't know if that -- if staff wants to respond to that or not. I issue it sort of as a question and a suggestion.

CHAIR RANDOLPH: Can we get Craig Segall to answer that?

DEPUTY EXECUTIVE OFFICER SEGALL: Sure. Thanks, Supervisor. So both the report referenced in that whereas, so both the Climate Action Plan for Transportation Incentives and the SB 150 report actually focus both on transportation options and better land-use planning, as do some of the incentives programs within the funding plan.

So I think the short version is wholehearted agreement, that is the intent of that passage, and they obviously go together as we all know, since better land use planning supports better transportation options and vice versa. So thank you for that.

BOARD MEMBER SERNA: Great. Thank you.

CHAIR RANDOLPH: Okay. Thank you.

All right. Assembly Member Garcia had a comment and he is unable to deliver it himself, so I am going to briefly deliver it and then I think we have one more Board member comment.

He says, "I'm happy to see that in line with SB 170, the clean off-road equipment voucher is being appropriated within an additional \$30 million in incentives for small landscaping businesses. I particularly support today's efforts, because I know there's public health impacts, although there's more that we need to support on this front. While I am pleased to see this incentive moving quickly through an existing program, I want to add a few comments that I have after some discussions with Assemblymember colleagues.

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"It is essential that wrapping landscaping into the CORE Program is coupled with substantial outreach in order to provide small decentralized landscaping businesses, particularly those Latino small business owners, a chance to access the voucher when compared to larger businesses and big commercial landscape programs who have an easier time drawing down these funds on a first-come first-served basis.

"Coordinating with current air districts who have been running successful lawn and garden exchange programs or partnering with community-based organizations to conduct outreach in relevant languages can make the difference for ensuring meaningful access to the program, particularly in communities like mine.

"Finally, CARB also needs to prioritize that

there were..." -- "...that there are checks in place to ensure that the businesses benefiting from the programs are small businesses, largely from low-income communities, communities facing air quality impacts, and who typically face high barriers in adopting new zero-emission equipment".

So thank you to Assemblymember Garcia for those comments.

Board Member Kracov.

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BOARD MEMBER KRACOV: Yes, and thank you, Chair. And don't have much to add being the last one to speak I've heard from a lot of stakeholders though, here. Chair, with proposals to tweak the Carl Moyer Program to streamline, improve its effectiveness. It was surprising to here in the South Coast letter, that it has funded only 64 heavy-duty truck replacements with Moyer. I didn't understand that before. I heard about the scrappage rules, the concepts of adding leasing proposals in. very supportive of staff's commitment to starting a public process, I think, in Q1 or Q2 of next year to address these multiple issues in a public forum. And I do also support the idea of a Board subcommittee or advisory committee chair to assist these efforts. I personally would be willing to participate. So I don't know if staff wants to respond to that advisory committee concept.

know we've done it before, what the Chair's thoughts are.

Thank you.

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CHAIR RANDOLPH: Okay. Thank you. Yeah, I do think that there is value in figuring out a process where we can pull stakeholders with different perspectives together to kind of go through some of these thorny issues. So we will definitely kind of circle with staff and talk about what sort of the best way to kind of structure some kind of process like that and how that would kind of overlay with a public process, right?

So we will -- we'll put our heads together and think about the best way to do that, recognizing that it has been successful in the past.

Okay. I don't think I have much to add from my fellow Board member comments. I just really -- I wanted to note a couple of quick things. The incentive funding for the agricultural burning program does specifically limit stationary sources. So I think -- you know, I thought folks made some good points, but it's not really something where we have flexibility.

And then secondly, on the CHIRP Program, we didn't actually need -- we didn't actually use that this year. We did not have any events that required that funding. And it is -- you know, it's unclear whether or not there will be another declaration next year. And so

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we will see how that unfolds going forward. I think we just wanted to make sure to have the rules in place in the event it was necessary.
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And given the level of work going on to rollout additional resources and additional capacity for high heat events, I'm optimistic that we may have put rules in place that we may never need to use, which would be a positive thing. So with that, is there a motion to approve Resolution Number 21-24?

BOARD MEMBER RIORDAN: I would so move, Chair.

BOARD MEMBER PACHECO-WERNER: I'll second.

CHAIR RANDOLPH: All right. Clerk, will you

please call the roll.

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BOARD CLERK ESTABROOK: Yes. Dr. Balmes?

BOARD MEMBER BALMES: Yes.

16 BOARD CLERK ESTABROOK: Mr. De La Torre?

MEMBER DE LA TORRE: Yes

18 BOARD CLERK ESTABROOK: Mr. Eisenhut?

BOARD MEMBER EISENHUT: Yes.

20 BOARD CLERK ESTABROOK: Supervisor Fletcher?

BOARD MEMBER FLETCHER: Fletcher, yes.

BOARD CLERK ESTABROOK: Was the De La Torre, did

23 | I hear a yes?

BOARD MEMBER DE LA TORRE: Yes.

BOARD CLERK ESTABROOK: Ms. Hurt?

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BOARD MEMBER HURT: Aye.
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             BOARD CLERK ESTABROOK: Mr. Kracov?
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             BOARD MEMBER KRACOV: Yes.
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             BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?
             BOARD MEMBER PACHECO-WERNER: Yes.
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             BOARD CLERK ESTABROOK: Mrs. Riordan?
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             BOARD MEMBER RIORDAN: Aye.
             BOARD CLERK ESTABROOK: Supervisor Serna?
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             BOARD MEMBER SERNA: Aye.
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             BOARD CLERK ESTABROOK: Professor Sperling?
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             BOARD MEMBER SPERLING: Aye, but with the
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   condition that staff does think about that PHEV deletion a
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    little bit more. Thank you -- from the CVRP program.
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             BOARD CLERK ESTABROOK: Ms. Takvorian?
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             BOARD MEMBER TAKVORIAN: Aye, but we didn't -- I
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    forgot to comment on that, but okay, it's not in the --
    it's just your comment, right? Are you -- yes, got it.
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    Okay. Thank you.
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             BOARD CLERK ESTABROOK: Vice Chair Berg?
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             VICE CHAIR BERG: Aye.
             BOARD CLERK ESTABROOK: Chair Randolph?
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             CHAIR RANDOLPH: Yes.
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             BOARD CLERK ESTABROOK: Madam Chair, the motion
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   passes.
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             CHAIR RANDOLPH: All right. Thank you.
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Okay. Our next item on the agenda is Item number 12 -- 21-12-5, the draft final Cap-and-Trade auction proceeds fourth investment plan. If you wish to comment on this item, please click the raise-hand button or dial star nine. We will call on you when we get to the public comment portion of this item.

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As we are all aware, the climate crisis is already here impacting the lives of Californians and people around the nation and world. California remains committed to combating climate change on multiple fronts and has goals across all sectors of the economy that are driving progress. California climate investment programs support a wide array of projects across the state to reduce greenhouse gas emissions, improve public health, provide economic benefits and support climate resiliency, with a core focus of on providing benefits to disadvantaged communities and low-income households and working directly with communities to build partnerships and respond to community needs. In fact, over 50 percent of the implemented California climate investment funds are preside -- providing benefits to these priority populations.

California climate investments, funded through the State's share of Cap-and-Trade auction proceeds play an important role in the State's approach to tackling

climate change by demonstrating new technologies and accelerating greenhouse gas reduction. The fourth investment plan provides guidance to the Legislature on key priorities for California climate investments over the coming years.

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One of the core elements of this investment plan is to identify funding recommendations and best practices around equity and addressing environmental justice. I want to underscore, and this is very important, this document is not a CARB plan. It represents the collective work of the administration to establish investment priorities over the coming years that support our interconnected goals.

As such, it is informational item intended to provide an opportunity for the public and the Board to share comments and provide input on the plan before the Department of Finance finalizes it. The Board will not be taking formal action to approve the plan, but we will be considering a procedural resolution that reflects the fact that the Board has met the statutory requirements for this investment plan, supports the recommendations, and provides direction to staff on next steps.

So following this Board hearing, the Department of Finance will finalize the plan, based on input from the public, and transmit it to the Legislature in January.

Mr. Corey, would you please introduce the item? EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

As you noted, the statute calls for the development of a three-year investment plan to guide the investments of the Cap-and-Trade auction proceeds. There are provisions in the statute around what the investment plan needs to include, along with requirements for CARB to conduct two public workshops and a Board hearing to take public comment on and discuss the plan.

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Today, as you noted, the Board will hear a presentation on the fourth iteration of this document, which builds on the prior three investment plans and years of implementation of California climate investments.

Staff worked with the Department of Finance, the Governor's office, California Environmental Protection Agency, the California Public Utilities Commission, the Climate Action Team, and many other agencies to develop the document you'll be hearing about today. And as you noted, the plan represents the collective thinking of the administration on how to strategically deploy climate funding in a way that drives progress towards our climate goals, while focusing benefits on our priority communities. The recommendations build off of relevant State planning efforts and years of program implementation.

In addition to coordination within state government, staff conducted a public process to hear from external stakeholders on funding opportunities and lessons learned from their experiences with incentive programs. Through public workshops, written feedback on a draft released for public comment, and individual meetings, staff obtained a wide array of public input on priorities for California climate investments and other climate programs in California. The plan considers this input in its recommendations and staff will present on the key themes heard through the public engagement process.

And also, as you noted, the Board is not being asked to take action on the plan itself. After today's discussion, staff will work with the Department of Finance to develop a final version for transmittal to the Legislature.

With that, I'll ask Anna Scodel of the Sustainable Transportation and Community -- Communities Division to give the staff presentation.

Anna.

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(Thereupon a slide presentation.)

STCD STAFF AIR POLLUTION SPECIALIST SCODEL:

Thank you, Richard. Good afternoon, Chair Randolph, and members of the board. I'll be presenting today on the Cap-and-Trade auction proceeds fourth investment plan,

which as you've heard is a Department of Finance document designed to guide the investment of the Greenhouse Gas Reduction Fund, also known as the GGRF, over the next three fiscal years.

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Before we move into the presentation, I want to be clear about the distinction between this investment plan and the funding plan that the Board just approved. The funding plan governs how money that has already been appropriated to CARB will be spent on specific programs. To contrast, the investment plan is a forward-looking document to help guide future appropriations from the GGRF, and it does not include specific programmatic appropriations.

Also, unlike the funding plan you just heard, the investment plan covers potential investment opportunities across the State agencies and is not focused solely on CARB programs.

So in the presentation today, I'll start with the some background on the California Climate Investments

Program, the budget development process, and requirements for the investment plan, including CARB's role. I'll then discuss the public process used to develop the fourth investment plan, provide an overview of the key recommendations, and go over the next steps.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL:

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California Climate Investments refers to the suite of programs funded through the State's share of auction proceeds from the Cap-and-Trade Program, which are deposited into the GGRF. As part of the annual budget process, the Legislature appropriates GGRF dollars to State agencies to administer programs that facilitate greenhouse gas reductions, and deliver a variety of economic, public health, and environmental benefits, with a particular focus on providing benefits to disadvantaged and low-income communities.

Over 20 State agencies are implementing these programs covering virtually every sector of the economy. These programs support projects like building affordable housing, producing renewable energy, expanding public transit, supporting the market for zero-emission vehicles through outreach and incentives, advancing sustainable agriculture and healthy forests, supporting recycling and food recovery and much more.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: The statute establishes a robust framework for implementation of California Climate Investments Programs. This includes requirements that programs facilitate greenhouse gas emission reductions and, where appropriate, maximize other

economic, environmental, and public health benefits, foster job creation, complement air quality improvement efforts, direct investments towards disadvantaged communities and low-income communities and households, which we collectively refer to as priority populations, provide opportunities for communities to participate and benefit from these programs, and lessen the impacts of climate change.

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The statute also establishes a variety of investment priorities and includes reporting requirements to track progress on these investments.

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mentioned, California Climate Investments Programs receive funding from the Legislature through the annual budget process. One of the resources to guide the funding decisions through that annual process is the investment plan that we're here to discuss today. The statute requires the Department of Finance to submit a plan to the Legislature every three years and establishes specific requirements for what that investment plan needs to include, such as the identification of the State's climate goals, recommendations for priority investments, and recommendations for metrics to track progress.

These requirements, combined with the existing

framework and priorities for California climate investments contained in statute, provide clear direction for how to approach the investment plan.

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The statute also identifies requirements for CARB to conduct public outreach and coordinate with State agencies on the development of the plan, including the Climate Action Team and the California Public Utilities Commission.

CARB works closely with Finance on developing this document and leads the public process and interagency coordination to compile a plan that represents the collective thinking of the administration and considers public input.

While the investment plan identifies funding priorities and opportunities, it does not make appropriations or include recommended funding amounts. Inclusion in the investment plan does not guarantee funding and omission does not preclude funding. Rather than making these specific budgetary recommendations, the investment plan provides a framework for thinking about funding decisions through the annual budget process.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: In developing the fourth investment plan, we have years of California Climate Investments implementation to draw from

to understand priorities for this funding looking forward. This includes lessons learned from State agencies implementing climate incentive programs, years of engagement and feedback from stakeholders, and the extensive data that agencies have reported on the benefits from California Climate Investments Programs.

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We reviewed various State planning documents to understand investment needs and worked directly with our sister agencies and external stakeholders engaged in California Climate Investments to understand implementation challenges and learn about priorities moving forward.

Building on all of these lessons learned gave us the opportunity in the fourth investment plan to highlight how the GGRF can help implement State climate goals over the next three fiscal years. On this slide, we have a snapshot of the key points in the process we've followed to develop the fourth investment plan that we're discussing today.

We formally kicked off this effort with a public workshop in February to obtain early public input on priorities for climate investments. After that workshop, we considered the input we received and worked with our State and external partners to develop draft funding priorities for where investments are needed to address

climate change.

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The administration released a draft investment plan for public comment on August 19th, and in September, we hosted a second public workshop where we presented an overview of the draft plan. The September workshop drew over 230 participants and included a panel of State agency representatives and community partners, who discussed opportunities within the State's climate funding portfolio to advance equity, support interagency coordination, and foster job creation.

In late October, we released a draft final version of the investment plan that considers the feedback we heard from our workshops and the written public comment we received. Today's hearing represents an important opportunity for the Board and the public to weigh in on investment priorities. After today, CARB staff will work with the Department of Finance to consider Board direction and additional public input.

The Department of Finance will finalize the document and submit it to the Legislature in January concurrent with the Governor's proposed budget for the next fiscal year. And while the board will not be approving or rejecting the investment plan, the Board will consider a resolution that expresses support for the plan.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: I'll now take a few minutes to further discuss the analytical process the plan follows to develop recommendations starting with the identification of State climate goals.

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Identifying the State's climate goals is a statutory requirement for the investment plan and establishes an overarching policy framework for developing funding recommendations. And as the climate crisis worsens, California con -- California continues to accelerate our efforts to mitigate climate change while building resilience to climate impacts.

The State has climate goals and targets across sectors and these elements set the stage for the areas of focus that the Legislature considers during the budget development process. This includes goals to drastically reduce greenhouse gas emissions by 2030, achieve carbon neutrality by no later than mid-century, build towards a zero-emission transportation system, reduce vehicle miles traveled, reduce energy use and transition to renewable energy sources, sustainably manage our natural and working lands in support of these goals, and slash emissions of short-lived climate pollutants, like methane and hydrofluorocarbons.

Now, achieving these goals requires a combination of strategies and coordination between all levels of

government, the public, and the private sector. Incentive programs play a key role in helping to deploy new technologies, reduce barriers to adoption to support market transformation, provide resources for communities to participate in climate action, and create models for other states and jurisdictions around the world.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: The next steps towards developing funding recommendations in the plan is the identification of potential investment types for consideration that are consistent with those climate goals. States agencies have completed or are actively engaged in a variety of planning and research efforts and public processes to identify the types of technologies, practices, and policies that California will need to meet these ambitious goals.

To identify potential funding opportunities to consider in the investment plan, we look to these efforts to understand where investments were needed. Efforts like the California Natural Resources Agency's Natural and Working Lands Climate Smart Strategy, the Zero-Emission Vehicle Market Development Strategy from the Governor's Office of Business and Economic Development, the California Workforce Development Board's Jobs and Climate Action Plan, and, of course, CARB's research on achieving

carbon neutrality in California, to name just a few. --000--

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL:

While there are many investment types that will be needed to achieve State climate goals, the purpose of the investment plan is to identify the specific funding opportunities that are best suited for the GGRF. After developing the set of potential investment types, the next step was to identify a set of guiding principles to help prioritize among those potential investment types.

The plan uses five overarching guiding principles for prioritizing investments, along with a suite of quantitative and qualitative metrics to evaluate each potential investment type with respect to the principles.

The first guiding principle is to support implementation of the State climate goals. We already highlighted State climate goals as an overarching policy framework for the plan, and the list of investment types we developed using the process described on the previous slide are all supportive of this guiding principle. We're reiterating this concept here, because the plan looks at specific metrics to help evaluate potential investment types for their ability to meet these climate goals with a particular focus on prioritizing investments that can support multiple State climate goals simultaneously.

The second guiding principle is to advance equity and environmental justice. We know that too many California communities continue to face heightened risk and increased sensitivity to climate change. In many cases, these same communities have fewer resources to cope with, adapt to, or recover from climate impacts. And, all too often, these disparate impacts are the result of government policies that have led to disproportionate burdens on many Californians, especially communities of color and California Native American tribes.

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There are several tools in the toolkit that the State can use to address equity and environmental justice through climate incentive programs, including with respect to who receives funding and benefits, and the process agencies use to developed and implement programs.

While the specifics will vary across programs, the plan considers opportunities to broadly advance equity and environmental justice through targeting more funding to priority populations and other underserved groups; recognizing the importance of focusing on community needs; providing communities with the resources that they need to participate in and lead projects; considering how funding programs can directly center and foster community leadership, participation, and decision-making; and improving evaluation across various equity-driven metrics

to support better tracking of outcomes.

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The third guiding principle is to improve public health. Many climate mitigation and resilience strategies directly provide important public health benefits. To understand how investments can support public health improvements, the plan looks at a variety of potential public health benefits, including improved air quality, reduced impacts from extreme heat, mental and physical health benefits from access to the outdoors and physical activity, and social determinants of health like employment and social cohesion.

The fourth guiding principle is to support a climate-resilient and prosperous economic future. This includes both the near-term actions to provide economic benefits, while supporting longer-term strategies to support a just transition to a low carbon future.

Key metrics for this principle include the potential for investments to provide savings through lower transportation or energy costs, whether investments provide direct jobs, and whether investments increase resilience to climate impacts like drought or wildfires.

The final guiding principle is one that was added in direct response to public input we received, and that is the concept of fostering interagency coordination.

There are several reasons to look at opportunities for

even stronger coordination.

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With a large number of agencies implementing environmental incentive programs, including within the California Investments framework and beyond, improved interagency coordination and can make it easier for potential grantees to identify related funding opportunities and help agencies integrate multi-sectoral strategies into projects to deliver on multiple State goals simultaneously.

The plan looks at each potential investment type to identify if there are opportunities for agencies to work together more closely on programs.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: With this process in mind, I will now turn to the six specific recommendations the investment plan makes, providing a brief overview of each one.

The first recommendation is around what kinds of emissions-reducing projects should be prioritized, with specific recommendations for priority investments in sustainable transportation and communities; low-carbon energy, buildings, and industry; natural and working lands; livestock; and waste diversion. In each of these sectors, the plan recommends funding for projects that reduce greenhouse gas emissions and support carbon

neutrality while delivering key co-benefits.

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In support of our equity goals, the plan identifies opportunities to develop these projects in ways that align with community needs, prioritize funding for priority populations and other underserved communities to help ensure that benefits accrue where they are most needed and minimize potential negative impacts. The vast majority of the recommended project types here are already being implemented through existing California Climate Investments programs.

There are a few emerging opportunities that are new in this investment plan, including an explicit focus on building electrification, incorporating advanced back-up power to support grid resilience, and strategies to address enteric fermentation to achieve additional methane reductions from the livestock sector.

In complement to the first funding recommendation for specific project types, the second recommendation focuses on funding designed to advance equity, environmental justice, and community participation across the portfolio. We know that all too often the complexity of grant programs, a lack of resources, or other challenges can limit the ability of priority populations, local governments, school districts, California Native American tribes, and other groups to apply for,

participate in, and lead funding efforts.

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To help address this barrier to achieving more equitable outcomes from our funding programs, this recommendation covers activities like capacity building and technical assistance, plan development, flexible plan implementation, and outreach related to awareness and education, all of which are important to provide communities with the resources they need to participate, center community voices, and develop projects that are responsive to community needs.

In addition to funding for these activities, there are opportunities to further support community participation through complementary strategies, for example, through approaches to enable meeting participation, like hosting meeting at times convenient for community members and providing stipends for participation.

There are also approaches to reducing administrative barriers, such as extending program time frame or reducing the amount of funding that grantees need to provide up front. The State can explore expanded opportunities to address these barriers and incorporate important practices like these into a broader set of programs. These investments and the complementary strategies can help level the playing field to enable

community-based organizations and other entities to meaningfully participate in State climate programs and build local partnerships that can sustain progress over time.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: The third recommendation is to direct funding towards high-quality jobs and high road workforce development. This includes investing in existing workforce development programs and expanding workforce development efforts across more investment types particularly in sectors where there are opportunities for the investments to create or support pathways to high road jobs.

Another way that climate incentive programs can support high quality employment opportunities is by incorporating job quality and job access measures across more investment types, setting minimum expectations for grantees of these programs.

The fourth recommendation is not recommending funding for any specific activity, but rather identifying opportunities for investments across sectors to support multiple state goals simultaneously.

For example, the plan identifies opportunities to integrate nature-based solutions into infrastructure and planning investments, opportunities like planting trees

along bikeways or sidewalks, or integrating green wastewater management strategy into housing projects.

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There are also opportunities to advance zero-emission technologies through a variety of investments, such as using electric appliances as a component of energy efficiency retrofits, incorporating lower-emitting refrigerants into projects that involve re -- that involve refrigeration or air conditioning, and using zero-emission vehicles and equipment wherever possible.

Integrating cross-cutting strategies like these can help maximize the benefits from any individual project.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: The last two funding recommendations are looking at opportunities to help ensure that implementation of California Climate Investments programs across the portfolio continues to support the guiding principles and deliver additional benefits.

The fifth funding recommendation in the plan is to support policy-relevant research and program evaluation tied to emissions-reducing projects. Research investments are important to help identify emerging emissions reduction strategies, assess unintended consequences from

investments, and estimate additional benefits.

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Coupling research activities with emissions-reducing projects helps make sure that they provide valuable policy-relevant insight along with tangible on-the-ground benefits.

Program evaluation is equally important and can help the State understand the specific impacts and effectiveness of individual programs. This is important to helping programs adjust to ensure the best use of State incentives dollars.

The last funding recommendation is around advancing support for priority populations and other underserved communities. Deliberately focusing resources on specific populations is an important tool for advancing our equity goals, and minimum investment targets are one way to make sure that happens. The plan recommends that the State explore opportunities to increase the portfolio-wide priority population target, which is currently set at 35 percent. This would help continue to ensure resources are directly benefiting priority populations.

The plan also recommends exploring investment minimums beyond the priority population definitions, in cases where the existing definitions may not fully address the equity goals of a given program. For example, the

State has identified socially disadvantaged farmers as a priority group for climate smart agricultural investments. There may be opportunities to expand investment targets for this group or other populations outside of the existing definitions.

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addition to funding recommendations, the investment plan recommends metrics to track progress. The first element here is a recognition that California Climate Investments programs already collect extensive information on program implementation, much of which was used to inform the recommendations in this fourth investment plan.

Maintaining these existing foundational metrics helps track progress across a range of important factors over time. There are, however, opportunities to build on this foundation. As California continues its efforts to improve racial and social equity, address environmental justice, promote public health and resilience, and support high quality jobs and a just transition, there are opportunities to enhance the data that administering agencies collect and report on.

The plan recommends the State explore additional metrics in these areas as appropriate -- as appropriate, such as public health data; demographic data, including

race, ethnicity, gender identity, and socioeconomic status; job quality metrics; and project-level equity metrics, such as specific measures of socioeconomic benefits from program or evaluating how financially accessible programs are for people or groups of different income levels. The goal here is to help us understand whether programs are meeting their objectives, who is benefiting from programs, and how we can improve implementation.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: I'd like to share briefly a few high-level messages we heard from public input that are reflected in the plan. As I mentioned previously, CARB hosted two public workshops to help obtain public input on the investment plan and also worked with a variety of stakeholders to understand their priorities.

The word cloud you see here is in response to a question we asked at our September workshop about what participants value most when it comes to climate funding. As you can see, equity and reductions were two themes that really stood out.

We also had a written comment period for the draft plan. So I'll highlight a few consistent themes that emerged across these two workshops and the written

public comment. Commenters want the State to focus on emission reductions, equity, jobs, multi-benefit projects, and interagency coordination. Commenters are supportive of a variety of investment types, but especially zero-emission technology, nature-based solutions, and community-focused projects.

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In addition to public comments of what kinds of projects should be funded, we also heard comments around how programs are designed and implemented, especially with respect to reaching priority populations and other underserved groups. This covers areas like financial accessibility of programs and grant timelines to enable under-resourced organizations, California Native American tribes, low-income populations, and other groups to plan for and participate in programs.

One other area of feedback was on the need to avoid negative impacts from projects. These are all comments that align with the recommendations included in the plan. However, there were certain areas of public input where the plan does not fully incorporate recommendations from commenters.

There were some areas where the public comments were outside the scope of the plan, such as requests for funding for specific technologies, suggested modifications to individual programs or recommendations for specific

funding amounts for certain programs. We have shared these comments with relevant agencies and the Department of Finance, but the investment plan is focused on high-level funding priorities and not individual technologies or programs. And the plan does not appropriate funding or include specific funding amounts.

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In a few cases, commenters recommended the removal of certain funding priorities or recommended the prioritization of project types that were prioritized in the draft plan. And in some cases, we received competing views on these project types.

In several of these instances, the plan identifies other funding sources or other programs outside of the California Climate Investments portfolio that may be available for the project types that the plan itself does not prioritize.

Overall, however, we heard a great deal of support for the recommendations included in the plan and we made some revisions from the draft to the draft final version we're discussing today to address comments where appropriate.

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STCD STAFF AIR POLLUTION SPECIALIST SCODEL: With that overview of the contents of the plan, I'll now turn quickly to cover the next steps in the process. While the

Board does not take action on the plan itself, there is a resolution before the Board that affirms that the investment plan has developed -- has been developed in accordance with statute, recognizes the many stakeholders involved in developing the investment plan, supports the plan's priorities, and directs staff to continue collaborating with the Department of Finance and other State agencies to implement practices and strategies identified in the plan.

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In terms of next steps on the document itself, as I mentioned earlier, CARB staff will work with the Department of Finance after this Board meeting to consider additional revisions based on Board direction and public input. The Department of Finance will then finalize the document and submit it to the Legislature concurrent with the Governor's proposed budget in January.

So that concludes the staff presentation, but before I hand it back to you, Chair Randolph, we're pleased to have California -- the California Secretary for Environmental Protection, Jared Blumenfeld here with us to provide some testimony on the investment plan on behalf of the Climate Action Team.

So I'll hand it over to you, Jared.

CALEPA SECRETARY BLUMENFELD: Thanks, Anna.

Good afternoon, Chair Randolph and members of the

Board. I really appreciate you having me today. And it was really great to be with all of you in Riverside, amazing event, amazing building that you're in today. It really just inspired me to think about kind of the legacy of CARB, and institutions, and California. And it really made me proud to be part of State government yesterday and today as you immediately jump into action. So thank you for that.

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As Anna said, I'm representing the Climate Action Team, which is an interagency group of State leaders that worked together on implementing the State's climate policies. And as many of you, Davina was talking about, but also the Chair, we had the opportunity to be in Glasgow just two weeks ago. And kind of there's two things that really struck me there. One is the urgency around what we're doing, and then secondly is really the opportunity that California has for continued leadership.

And as we think about the work that we do and particularly the investment in Cap-and-Trade auction proceed really is an important tool to help accelerate our progress to ensure the state's climate programs benefit our most vulnerable populations. And as many of you said in the last agenda item, that focus on equity really is at the key core of what we're doing. And I personally don't believe that we can solve climate change without solving

the equity issue. I don't think one is a secondary issue to the other, like let's make our climate programs more equitable, so that, you know, we can have better programs. I genuinely believe we won't solve our climate issues unless we deal with the equity, and that includes a whole host of issues from health, housing, education, and the massive income inequality gap that we have in our -- in our state.

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So as an administration, we recognize it must be a core focus on achieving these more equitable outcomes and advancing our environmental justice goals across the climate portfolio. And this, I think, is -- we kind of touched on yesterday a little bit in some of the speeches, but really is an issue that can't just be paid lip service to. You know, we have to make sure that if we're saying we care about these, that in the metrics -- and you can all look on the California Energy Commission page that shows number of vehicles sold and we're at the hundred -- at the million EVs sold in the state, where they're being sold, who they're being sold to needs to fundamentally change because the majority of low-income Californians and Californians of color don't see themselves in the work that we're doing enough.

Some don't see themselves in it at all. It feels like a very elite, very out-of-touch issue, climate

change. And we need to bring that front and center into what we're doing. And I think that really means identifying opportunities to increase support for priority populations as Anna was talking about through these targeted investments, providing everything from technical assistance and capacity building and supporting approaches that center on community voices and leadership. And those are all key recommendations in the investment plan.

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Another core component of the investment plan and a hallmark of our climate work is interagency coordination, all of government, and new Senior Climate Advisor to the Governor, Lauren Sanchez, who worked at CARB and then CalEPA really focus on making this about, you know, what is it that all the agencies are doing from housing, to health, to DGS. So really this is part of that effort.

So we know it's going to take approaches that are both intersectional and cross cutting looking at how we deal with building electrification, transportation emissions, accelerating our climate smart management of natural and working lands. And you all recognize this as Board members, but we can't do this in a vacuum. So this investment plan embodies this concept of cross-sectoral strategies and coordination within an agency -- interagency process. It involved multiple presentations

to the interagency group throughout the past year and focused one-on-one meetings with programs that are all brought into these recommendations.

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Specifically, the plan highlights opportunities for State agencies to collaborate on outreach and solicitations and streamlining the application processes, integrating zero-emission technologies and nature-based solutions across project types, expanding workforce development and job access, measures which is really key. People want to see their future and see that the opportunities for reducing emissions don't just go, as they did in Silicon Valley, to a very few, but that it's spread across the entire economy, aligning investments to advance multiple climate, public health, environmental, and economic goals simultaneously.

I'm super proud of the work that's been done by your team, because I think the fourth climate investment plan really does bring together the expertise of our State partners and reflects what we've been hearing, which is to incorporate the lessons learned throughout the years of implementation of California Climate Investment programs.

And as we move towards finalizing the plan and look towards implementation, we really need, I think, to think about what we can each do to push the plan as we are developing it and talking to Jen, and Anna, and the team.

You know, we have this plan, but in each of the conversations I think we have with the Legislature, with the public, reinforcing kind of these are the measures that we need to be held accountable to, this is kind of the guiding roadmap for what we're doing in this area.

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And then just before I turn it back to Chair
Randolph, I want to thank you all in your earlier comments
for the goal of supporting staff. I often feel -- I get
to oversee a number of boards, departments, and offices,
and CARB is both the one that is, I think, often put in
the best spotlight, but held to a level of accountability
that often doesn't make sense to me.

Like, they -- we need broad parameters of what the staff are doing and also to many of the comments that you mentioned earlier. We also need to make sure with workload analyses and other things that we really have the staff to do the work. It feels like at every turn, and I'm -- and I know the Governor is also sometimes responsible for this, whenever there's something that we need to do, let's put it in the Scoping Plan, let's CARB -- let's ask CARB to do this work.

So I think we really need to make sure that -- and I'm committed to doing this and working with you, that CARB has the resources, has the latitude to do the work that it needs to do, because people are under enormous,

enormous personal pressure. At this time, I think there's a singular sense of responsibility that CARB employees feel and is real, bringing it all the way back to CARB -- to the COP in Glasgow, people are looking to your Board, to the staff, to really solve many issues that are the world's responsibility, but have been put on CARB's shoulder.

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So I'm very proud of this plan. And as Anna said, you'll, you know, be furthering the agenda by bringing it to the Governor's office. And it will hopefully help inform Jan 10 and budgets for years to come.

So back to you, Chair Randolph, and appreciate the opportunity to speak with you today.

CHAIR RANDOLPH: Thank you, Secretary Blumenfeld. We really appreciate those comments.

So now we will hear from the public on this item. And I will ask the Board Clerk to call the commenter and they will have two minutes each to comment.

BOARD CLERK ESTABROOK: Thank you, Chair. We currently have eight commenters with their hands raised at this time. If you would like to speak on this item, please raised your hand in Zoom or dial star nine, if you're on the phone.

Our first three speakers will be Eileen Tutt, Tim

Sasseen, and Scott Hedderich.

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Eileen, please unmute yourself and begin.

Eileen, are you there?

Okay. I'll come back to you.

Let's move on to Sim -- Tim Sasseen.

Sasseen, market Development Manager for the U.S. Ballard Power System. We're very pleased and honored to be a part of the zero-emissions story for California, as we have been for the past 25 years. And Cap-and-Trade has really enabled a lot of the programs that have helped us to put clean technology into the field. And it's not lost on us how this dynamic affects California. It's laudable that the Cap-and-Trade auction proceeds are so intensely directed towards disadvantaged communities, which is great. We should think about disadvantaged communities and their residents today, but we should also look over the horizon to the future.

We assume we're going to be successful and that CARB's efforts will be successful. And when they are, a lot of the factors that make the communities affordable, that disadvantaged and underrepresented people live in, are, in fact, pollution that we're cleaning up. Once we clean up these communities, those communities will see a change in gentrification, in real estate values. Being a

resident of San Diego acutely aware of the difficulties that increasing rents and increasing real estate prices are pushing onto the working class of California.

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And as many aspects of clean energy are intertangled with things like water and equity, they're also entangled with problems with real estate. And if we are successful and we don't change the way that real estate and the rental market works in California, we may achieve the opposite of what we seek to do. As the regions where people live in, that they're dealing with pollution become cleaned up, they become forced out to less livable areas. And those areas are handed over to the investor class.

So I commend CARB for your work today and for what you intend to do with the Cap-and-Trade. And I strongly encourage reaching out to find ways to address this very critical problem, so that what you seek to achieve can be achieved.

Thank you very much for your attention.

BOARD CLERK ESTABROOK: Thank you.

Scott Hedderich, you may unmute and begin.

SCOTT HEDDERICH: Hi. I can be super brief, as I should be in the queue for the harbor craft rule and not this, although clearly having a plan for how to use thd Cap-and-Trade proceeds is extremely important.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speakers will be Julia Levin, Sharon Sand, and Christopher Chavez.

Julia, you can unmute yourself and begin.

JULIA LEVIN: Good afternoon. Julia Levin with the Bioenergy Association of California.

I wanted to follow up on something that Secretary Blumenfeld said about the messages coming out of the Glasgow climate conference. I think one of the biggest messages from the conference was about the urgency of reducing methane and other short-lived climate pollutants, since those are really the only measures that begin to cool the climate right away or even in the next few decades. So it is critical that we prioritize reductions if short-lived climate pollutants.

And that is especially important in the areas of diverted organic waste in converting dairy, and agricultural, and forest waste to energy and in reducing diesel emissions, all of which are sources of methane and black carbon emissions.

On the prior agenda item, several Board members asked for more metrics. And I would say in the area of cap-and-trade investments, the Air Board has done a great job providing those metrics, in terms of both the

effectiveness and the cost effectiveness of different cap-and-trade investments over the last several years. By far, the most effective investments and the most cost effective investments have been the ones in short-lived climate pollutant reductions. So both the science and the metrics really point to the need to prioritize these.

Above all, we urge you to increase the focus on diverted organic waste. SB 1383 requires a 75 percent diversion from landfills in just the next three years. So increasing investment in that area will help local governments to meet that requirement.

We also urge you to expand the focus in the transportation chapter, which doesn't even mention short-lived climate pollutants, and that's partly because it's focused exclusively on zero-emission vehicles. We've got to prioritize getting diesel off the record and replacing it with vehicles that can run on carbon-negative biogas. In that way, you reduce black carbon emissions from diesel and black carbon or methane from organic waste.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Sharon Sand, you can unmute and begin.

SHARON SAND: Hello. Chair Randolph, CARB Board members, and staff thank you for taking my comments. My

name is Sharon Sand. And I'm with The Trust for Public Land.

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In terms of urban greening and equity, we'd like to emphasize the importance of immediate and bold investments in green school yards, especially in disadvantaged communities. Children are increasingly kept from playing at recess and launch or even going outside due to extreme heat. This is exponentially worse when playgrounds are covered in asphalt, and have no shade. Children's health, exercise needs, and ability to focus, and excel in school, and have a healthy future can have a big difference.

Relatively small investments can make big impacts for school children when shading, trees, and other natural elements are incorporated into their -- into their school yards. These also can make a great impact for the surrounding communities.

Thank you for taking my comments.

BOARD CLERK ESTABROOK: Thank you.

Christopher Chavez, you may unmute and begin.

CHRISTOPHER CHAVEZ: Yes. Hello. This is

Christopher Chavez Deputy Policy Director at Coalition for

Clean Air. Just a few comments for today's items on the

funding plan.

First, we do want to encourage CARB to continue

focusing in on equity. And I think, for example, the funding plan that was just passed -- I should say investment for this one, the -- for the funding plan that was just passed, you have that 60 percent minimum investment. We would love to see -- or would like to see a similar commitment in this funding plan as well.

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We appreciate the plan recognizing the need to build community capacity. That's one of the biggest challenges facing California's climate investments and implementation in those climate investments. There's a lot of community organizations that are willing and able to participate and take leadership of these projects, but they need help and capacity in getting it done.

Of course, we always want to see a maximization of co-benefits, while the investment plant is focused on greenhouse gas emissions, we need to make sure that we're addressing other air pollutants well, such as smog forming criteria air pollutants, as well as air toxics. Air toxics are a major concern for frontline communities especially.

For example, I live in -- near the Port of Long Beach near the freeways and diesel particulate matter is always a persistent concern. As we've seen with the shipping backlog NOx emissions are up by 20 tons per day, diesel DPM is up by 0.5 tons per day. So we need to use

our investments in the strong -- in the most effective way possible.

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We appreciate the elevation of active transportation, transit, and shared mobility in the plan, and would encourage CARB to -- and the air districts to accelerate the deployment of zero-emission back-up power for buildings. The public safety shutoffs obviously are a big concern. I know part of this is addressed in CHIRP, but as the plan -- the investment plan moves forward, including that as part of it is important.

Thank you very much for your time BOARD CLERK ESTABROOK: Thank you.

Our final two speakers with hands raised for this item, are Teresa Bui and phone number that's listed as call-in user 2.

Teresa, you may unmute and begin.

TERESA BUI: Thank you so much. Hi there. My name is Teresa. I'm with the environmental non-profit group called Pacific Environment and we are in support of the demonstration of zero-emission for marine vessels under sustainable transportation and community plan. It meets all the co-benefits, including greenhouse gas reduction, job creation, air quality, and help to reduce impacts to port communities. It meets the State goals, the Governor's Executive Order on climate, and it helps to

advance State regulation, including CARB's ocean-going vessels at berth regulation and the commercial harbor craft rule.

And as the State looks towards economic recovery after the fallout of COVID-19, we think that continued investment in developing zero-emission technologies and infrastructure in the maritime sector will help provide opportunities for reliable in-state jobs while also achieving our climate goals.

Thank you for your time.

BOARD CLERK ESTABROOK: Thank you.

Call-in user 2.

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RANJI GEORGE: Hello. My name is Ranji George. Can you hear me?

BOARD CLERK ESTABROOK: Yes, we can.

RANJI GEORGE: Thank you.

I worked in the Technology Advancement Office on fuel cells, batteries, and technology, and natural gas technologies at South Coast, so I have a technology background. I just have a concern with the greenhouse gases. There was no mention whether any funding will be given for battery recycling. Unfortunately, the agencies -- all the major agencies, ARB, kind of muted on the very serious nature of battery waste that's coming up the pipeline, and who will be -- who will be

disadvantaged? It will be the disadvantaged communities we are trying to help.

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So I urge the greenhouse gas funding we use to advance battery recycling and have a minimal environmental footprint on that. Europe is moving that way and I urge you to do that right away without delay before it's too late.

Number two, I have a question on cost effectiveness. I understand Carl Moyer has a cost effective calculation. I don't know to what extent greenhouse gas funds have it. But just to answer Dr. Sperling's comment on cost effectiveness, one of the unfortunate outcomes of using cost effectiveness, even though there were — they had some sincere intentions, is that it favors fossil fuels, existing fuels, because they have infrastructure in place. And so the cost effectiveness is lower than new technologies, like batteries and hydrogen fuel cells, in particular where infrastructure have to built.

When you add all that, the cost effectiveness goes all over the roof. So it's -- I appreciate ARB staff. I've been lobbying for several months in last year, and some part of this year in several meetings to remove this cost effective, because it's suffocating funding into the newer technologies, which is more cost

effective in the short run. I mean, in the medium term and long term.

Technologies like natural gas may be needed where there's no other technologies, but as we move to other technologies, I urge you to set aside sub -- big -- substantial funds to encourage that.

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BOARD CLERK ESTABROOK: Thank you. Thank you. That concludes your time.

We have one more speaker Joseph Kleitman. Were you hoping to make a comment on this item.

JOSEPH KLEITMAN: I will wait for the next item.

BOARD CLERK ESTABROOK: Okay. Thank you.

Chair, that concludes the commenters.

Okay. Thank you very much.

CHAIR RANDOLPH: Okay. I will now close the record on this item and we'll move to Board discussion.

Do any Board members have --

Okay. We'll start with Dr. Balmes.

BOARD MEMBER BALMES: Thank you, Chair.

So, you know, I note, you know, on slide eight, the guiding principles and evaluate metrics involve both advancing equity and environmental justice, improving public health, I'm totally supportive of that. But I do have the opportunity to work with graduate students at UC

Berkeley and the School of Public Health. And one of my graduate students actually did a internship with OEHHA, our sister agency, CalEPA, to evaluate sort of the equity of our climate change investments. And they're not equitably distributed throughout the state.

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You know, even satisfying criteria outlined in funding guidelines, the lack of targeted funding -- I'm reading from a report, the census tracts with the highest burden of pollution and socioeconomic disparities continues to result in unequal benefits across the state.

And I'll just give you an example. Well, I'll just say that they use CalEnviroScreen to determine the most impacted communities. And, you know, in fact, some of the -- in areas, the investments really go disproportionately to communities that aren't that impacted in the first place. And then there's other areas in the state where, you know, impacted communities are, in fact, getting appropriate funds.

I want to say that in this analysis, the San Joaquin Valley did pretty well. And, you know, of course, it's needed there. And, you know, something that really upset me was that there was a lack of data about the reduction of emissions and exposures through our -- you know, with our climate investments, and especially about diesel, which is one of the most important emissions with

regard to both environmental justice, equity, and public health. She couldn't analyze diesel emission impacts of climate investments, because there just wasn't enough data.

So I guess my point here is that I think we need to do better in terms of the accountability, the metrics for improving health and equity with regard to climate investments. You know, we're -- I'm very proud that this investments. You know, we're -- I'm very proud that this is an evidence-based agency. And these climate investments really have to make a difference in terms of equity and public health. So I just encourage us, as an agency, to do a better job at evaluating where these monies go.

Thank you.

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CHAIR RANDOLPH: Thank you.

Dr. Pacheco-Werner.

BOARD MEMBER PACHECO-WERNER: Thank you.

Supporting Dr. Balmes' comments. And I will take it one step even back, and, you know, appreciate Secretary Blumenfeld being here, because when I asked staff about, well, what does equity actually mean in this plan? There's not one definition, because every agency has a different definition of equity. How could we even measure something when we don't even have a common definition of

what it is.

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And that's really concerning to me, because we need to be as intentional as possible. We have tools available to us. We do not need to go, you know, terribly far and deep into the weeds to find a definition. CalEnviroScreen. It's a great tool. It's a great starting point. And, for me, it feels like when we just put equity somewhere and we don't even have a common definition of it. That is going to create disproportionate harm down the road. And I'm not being inflammatory about this. I think when we don't know who we're targeting and we don't commit together to spending our money together in the same way, we're not going to reach who we need to reach and really maximize all of the different opportunities of all of the different funding streams to make the changes that are needed.

So I would ask for this group of different agencies to at least have a basis of what does equity actually mean, so we can start from there. And then definitely support Dr. Balmes in terms of our own agency thinking about, you know, how -- what are the metrics used. But we at least, among all of us, need some sort of common definition.

Thank you.

CHAIR RANDOLPH: Okay. Dr. Sperling.

BOARD MEMBER SPERLING: Just a quick thought and that is something that I think could be added to this plan, stepping back even a few steps back. And that is under -- there was these foundational requirements, the idea that kind of, in a sense, strategies. One that was not mentioned anywhere is unlocking private investment, because none of this is going to happen without private investment. And that private investment is to achieve goals of jobs, equity, climate, health. There has to be money unlocked.

And, you know, and that's -- it can be in the form of demonstration projects, and incentives, and R&D, all kind of things that are here anyway, but it might be a -- given that we really need to get the business community engaged here, it might be something to, you know, highlight. Thank you.

CHAIR RANDOLPH: Thank you.

Other Board Members?

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Okay. I think those -- I think those are great points. I think this is a very challenging process, because ultimately we're sort of providing this input to the Department of Finance as they kind of move this forward, but I think, you know, there are opportunities for the Climate Action Team, as Secretary Blumenfeld mentioned, to sort of convene State agencies and really

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kind of have a deep sort of conversation about how different agencies are seeing equity as they're serving different populations, and trying to address different needs, and seeing if we can articulate some consistent goals moving forward with these investments. So I think those are some excellent points.
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Okay. So I guess we do need to take a vote on providing this guidance, correct, Executive Officer Corey?

EXECUTIVE OFFICER COREY: That's correct.

There's a resolution for you.

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CHAIR RANDOLPH: Okay. Great. All right. So we have Resolution number 21-25. Do I have a motion and a second?

VICE CHAIR BERG: So moved.

BOARD MEMBER SPERLING: I move or second, whatever, wherever I fall into the process.

17 CHAIR RANDOLPH: Okay. Clerk, can you please 18 call the roll.

BOARD CLERK ESTABROOK: Dr. Balmes?

BOARD MEMBER BALMES: Yes.

BOARD CLERK ESTABROOK: Mr. De La Torre?

BOARD MEMBER DE LA TORRE: Yes.

BOARD CLERK ESTABROOK: Mr. Eisenhut?

BOARD MEMBER EISENHUT: Yes.

BOARD CLERK ESTABROOK: Supervisor Fletcher?

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BOARD MEMBER FLETCHER: Fletcher, aye.
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             BOARD CLERK ESTABROOK: Senator Florez?
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             Ms. Hurt?
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             BOARD MEMBER HURT: Aye.
             BOARD CLERK ESTABROOK: Mr. Kracov?
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             BOARD MEMBER KRACOV: Yes.
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             BOARD CLERK ESTABROOK: Dr. Pacheco-Werner?
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             BOARD MEMBER PACHECO-WERNER: Yes.
             BOARD CLERK ESTABROOK: Mrs. Riordan?
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             BOARD MEMBER RIORDAN: Aye.
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             BOARD CLERK ESTABROOK: Supervisor Serna?
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             BOARD MEMBER SERNA:
                                 Aye.
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             BOARD CLERK ESTABROOK: Professor Sperling?
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             BOARD MEMBER SPERLING: Aye.
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             BOARD CLERK ESTABROOK: Ms. Takvorian?
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             BOARD MEMBER TAKVORIAN: Aye.
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             BOARD CLERK ESTABROOK: Vice Chair Berg?
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             VICE CHAIR BERG:
                               Aye.
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             BOARD CLERK ESTABROOK: Chair Randolph?
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             CHAIR RANDOLPH: Yes.
             BOARD CLERK ESTABROOK: And can I just confirm
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   who the first was for that --
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             VICE CHAIR BERG: Berg. Berg moved. Thank you.
             BOARD CLERK ESTABROOK: Thank you. The motion
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    passes.
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CHAIR RANDOLPH: Thank you.

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Okay. The last item on today's agenda is Item number 21-12-6, proposed amendments to the Commercial Harbor Craft Regulation. If you wish to comment on this item, please click the raise hand button or dial star nine now. We will call on you when we get to the public comment portion of this item.

Today, the Board will hear staff's proposal for expanding emissions requirements to commercial harbor craft operating in regulated California waters. The proposed amendments would build on the current Commercial Harbor Craft Regulation by expanding the requirements to additional vessel types and proposing more stringent engine performance standards for in-use vessels. As the Board knows, we have very ambitious obligations not only at the State level through requirements to reduce toxic air pollution -- pollutants and greenhouse gases, but through our Federal Clean Air Act requirement to meet air quality attainment standards.

To attain these health-based standards, we must reduce oxides of nitrogen in the South Coast Air Basin by 45 percent by 2023, and additional 55 percent by 2031, and an additional 70 percent by 2037. The Commercial Harbor Craft Regulation is one of the critical actions vital to meeting our toxic health exposure, greenhouse gas, and

federal Clean Air Act requirements.

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Further reducing emissions from commercial harbor craft would provided -- would provide much needed emissions reductions and public health benefit to communities surrounding the internal and coastal waters where harbor craft are concentrated. This is the first of two Board hearings for the proposed amendment.

Mr. Corey, would you please introduce the item.

EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

In 2008, the Board approved the Commercial Harbor Craft
Regulation, which reduces emissions from diesel engines on
commercial harbor craft. The regulation was amended in
2010 to include additional vessel categories. In 2017,
the Board directed staff to provide concepts to control
pollution from large freight facilities, including
seaports.

In response to the Board direction and projected public health benefits, staff has developed the proposed amendments for your consideration. The proposed amendments we're presenting to you today further expand in-use requirements for commercial harbor craft to more vessel categories, creates more stringent performance standards for diesel engines, introduces mandates and incentives for zero-emission harbor craft, and provide requirements for facilities to provide supporting

infrastructure and increased reporting to CARB.

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The proposed amendments reduce emissions of criteria pollutants and toxic air contaminants in communities near seaports, marinas, and harbors, where residents are often disproportionately exposed to air pollution.

Many of these communities are AB 617 selected communities, and are recognized as disadvantaged due in part to impacts from marine-related air pollution.

Reducing harbor craft related emission helps to reduce the cumulative exposure to toxic emissions, as well as helps California meet federal clean air standards.

That being said, we acknowledge and recognize that what is proposed will be challenging for some California businesses, especially small businesses. As such, we are proposing various avenues for extension requests for fleets that experience financial and technical challenges in meeting the requirements. In some cases, the extensions being proposed could extend out to 2034 to provide more time for compliance.

I'll now ask Melissa Houchin of the Transportation and Toxics Division to give the staff presentation.

Melissa.

(Thereupon a slide presentation.)

Mr. Corey. And good afternoon, Chair Randolph and members of the Board. Today, I will be going over staff's proposed amendments to the Commercial Harbor Craft Regulation. We have identified potential impacts in the environmental analysis prepared for this rulemaking, so this is the first of two Board hearings on this item. Staff plans to return with a final proposal for Board consideration early next year.

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TTD AIR RESOURCES ENGINEER HOUCHIN: Let's start with what are commercial harbor craft. Commercial harbor craft include vessels that are not subject to the requirements for ocean-going vessels, such as the new At Berth Regulation that was adopted last year. Recreational vessels are also not subject, unless they engage in commercial activity.

Harbor craft operations are diverse. And for this regulatory effort, staff has classified over 3,100 vessels that operate in the state into 18 categories. These vessels are typically diesel fueled and can operate throughout the state. Although activity is concentrated near seaports, marinas and harbors, the impacts of emissions from commercial harbor craft are felt over 50 miles inland.

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TTD AIR RESOURCES ENGINEER HOUCHIN: The current Commercial Harbor Craft Regulation was adopted in 2008 and amended in 2010, which has reduced diesel particulate matter and other emissions in regions throughout the state. It established requirements for the vessel owner or operator to accelerate turnover to Tier 2 or 3 standards by the end of 2022 for select vessel categories, which include ferry, tugboat, excursion, crew and supply, barge, and dredge vessels.

Tier 4 engines or clean air controls are currently required for ferries built after 2009 that carry 75 passengers or more. The regulation also requires vessel owners and operators to use CARB ultra low sulfur diesel fuel, the same fuel as on-road vehicles, measure operating hours, and report engine and vessel information.

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TTD AIR RESOURCES ENGINEER HOUCHIN: Although the current regulation has helped, there is still more that must be done. As you know, we have several air quality standards, targets, and goals to meet over the next 30 years. In addition, Executive Order N-79-20 signed by the Governor last year sets a goal for all off-road equipment in the state to be zero emission by 2035 where feasible. The proposed amendments we are discussing today work to

support all of our toxic, air quality, and climate requirements.

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absence of the proposed amendments, we are projecting that commercial harbor craft would emit 165 tons per year of diesel particulate matter, or DPM, and 15.1 tons per day of oxides of nitrogen, or NOx, in 2023. This figure shows the breakdown of diesel particulate matter emissions by vessel category.

For simplicity, we have grouped some of the categories, but it is critical that each of the 3,100 plus vessels that operate across the state reduces their emissions. Omitting requirements for any single category could undercut the overall reductions from harbor craft.

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TTD AIR RESOURCES ENGINEER HOUCHIN: CARB staff recognizes the investment that owners and operators have made to comply with the current regulation and local air district funding that has been used to achieve additional emission reductions. As a result of these efforts, many vessels now operate with Tier 2 engines. Nevertheless, a Tier 2 engine still emits 162 times the level of five-year old school bus engine. In the real world, the difference is likely even larger, because harbor craft can be

equipped with multiple engines.

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TTD AIR RESOURCES ENGINEER HOUCHIN: As mentioned earlier, harbor craft operations are concentrated near seaports, harbors, and marinas, which are often near disadvantaged communities and areas of high population density. However, as shown in this heat map, vessel activity occurs statewide along the entire coastline.

As such, the proposed amendments consider the need for statewide emission reductions from vessels operating everywhere to protect all communities.

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in to the South Coast Air Basin to show the extent of cancer risk impacts from harbor craft activity. This figures shows there are disadvantaged communities both near the coast and up to 50 miles inland that are burdened by toxic diesel emissions.

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get into the proposal itself, I want to take a minute to talk about the public process staff undertook to get here today. The development of these amendments began in 2018. We have had five public workshops, over 400 meetings, released draft concepts and materials, and completed a

feasibility study for cleaner combustion controls with the California Maritime Academy.

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Meetings included site visits, working groups, and community engagement. We received and considered input from the public such as the photo of the smoking vessel shown in this slide. Draft materials included regulatory concepts, draft cost analyses, emissions impacts, and two drafts of regulatory language.

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TTD AIR RESOURCES ENGINEER HOUCHIN: Now, we will move on to the proposal. In support of Executive Order N-79-20, zero-emission requirements were a top priority of the proposal and are established where feasible including in 2025 new excursion vessels must be zero-emission capable, and in 2026 all short-run ferries must transition to full zero emissions.

Although the zero-emission technology to meet these duty cycles is available today, the proposal allows a few years of lead time for vessels and zero-emission power systems to be designed. In addition, support infrastructure for charging or fueling vessels could require between two or three years to be planned, permitted, and installed. We also estimate that over 100 vessels will be operating with zero-emission capability by the 2030s.

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TTD AIR RESOURCES ENGINEER HOUCHIN: In our proposal, we include two options to allow and encourage zero-emission operations through alternative controls, which will be discussed later in this presentation.

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The proposed amendments would also require the use of renewable diesel, or R99, beginning in 2023. R99 is a drop-in replacement for fossil-derived ultra low sulfur diesel fuel, typically called CARB diesel. This means \$99 meets the same ASTM D975 specifications as standard CARB diesel. It produces lower criteria pollutant and greenhouse gas emissions. In addition to renewable diesel the amendments would require the use of shore power at dock to limit engine idling to 15 minutes.

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TTD AIR RESOURCES ENGINEER HOUCHIN: Where not currently feasible to transition to zero emission, CARB staff proposes cleaner combustion requirements. The categories in the left column are subject to the regulation already in place, and as a reminder, are required to turnover to Tier 2 or 3 standards, but there are a variety of other harbor craft that have significant emission contributions and have had no requirements to upgrade engines.

The vessels on the right are new vessel

categories we are proposing to add, including all commercial vessels, work boats, pilot, research, sportfishing, commercial fishing, all barges, engines under 50 horsepower, and all vessels regardless of fuel type.

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TTD AIR RESOURCES ENGINEER HOUCHIN: To achieve the greatest emission reductions and public health benefits, the proposed amendments would not only require the cleanest U.S. EPA certified engine available, but also the use of a diesel particulate filter, or DPF.

The proposal also requires that Tier 4 engines must be purchased if they are certified for the size and duty cycle of an engine. The PM standards require by the proposed amendments would harmonize with the newest on-road engine standards. As of today, there are 22 models of Tier 4 engines certified and DPFs are a proven technology that have been in use in off-road and on-road vehicles for many years.

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TTD AIR RESOURCES ENGINEER HOUCHIN: This graphic shows the compliance dates for each category and potential extensions available. Compliance dates, shown in green, depend on the vessel type, engine tier, and engine model year with dirtier engines having earlier compliance dates.

The blue bars show possible compliance extension periods if vessel replacement is required.

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For most vessels, the financial hardship and feasibility extension can be granted for up to six year careers or up until 2034. For sportfishing vessels, ferries, and excursion vessels with compliance dates in 2024 or earlier, the financial hardship and feasibility extension can be granted for up to eight years, due to economic considerations for passenger-carrying vessels that may have experienced ridership changes in 2020

Note that commercial fishing vessels are required to upgrade Tier 1 and older engines to Tier 3, which is a feasible modification on virtually all in-use vessels and therefore no compliance extensions for feasibility are necessary.

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TTD AIR RESOURCES ENGINEER HOUCHIN: The dark squares mark when vessel replacement may be required after the financial hardship and feasibility extensions expire. Most financial hardship and feasibility extensions expire December 31st, 2034 which is shown by the vertical black line at the right end of the figure. These compliance extensions provide opportunities for fleets dealing with technical or financial difficulties additional time to comply, in some cases, up to 13 years from now.

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amendments include a compliance option called the,
"Alternative Control of Emissions Plan", or ACE Plan.
This is a plan created by an operator that will result in equivalent emission reductions as following the model year compliance schedule outlined in the previous slide. The application would need to be submitted between January 1st, 2023 and December 31st, 2025.

The plan would need to show equivalent emission reductions from a harbor craft fleet's operations between January 1st, 2023 through December 31st, 2034, and must receive CARB approval with a public process review.

The proposed amendments also include a zero-emission and advanced technology credit, or ZEAT credit, to incentivize the adoption of zero-emission.

An operator deploying a zero-emission or zero-emission capable vessel would receive additional compliance time for another vessel in the fleet. Three years for a zero-emission capable vessel, and seven years for a full zero-emission vessel.

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TTD AIR RESOURCES ENGINEER HOUCHIN: The proposed amendments include other additional requirements to increase reporting and compliance. Vessels must be

labeled following the format shown on the slide. The labels must have a green background, black letters, and comply with requirements for location and size of the label.

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Engines must meet smoke opacity limits to ensure emission control systems are properly maintained. Vessel owners would be subject to annual compliance fees per vessel and per main engine in the fleet and both vessel and facility owners and operators would be subject to additional reporting requirements.

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also proposing that vessels with a home base in or adjacent to disadvantaged communities have additional stringency under the proposed amendments. Disadvantaged communities would be identified as the highest scoring 25 percent of census tracts from CalEnviroScreen. Vessels with a home base in or adjacent to disadvantaged communities would have more stringent low-use thresholds.

The proposed amendments also requires the demonstration of no increased impacts on disadvantaged communities from alternative compliance plans or zero-emission credits. The proposal requires that the additional compliance time given to diesel-powered vessels must not operate in these communities.

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TTD AIR RESOURCES ENGINEER HOUCHIN: These figures show the estimated emissions in 2035 with and without the implementation of the proposed amendments with diesel PM emissions on the left in tons per year, and NOx emissions on the right in tons per day. Statewide the proposed amendments would result in an 89 percent reduction in diesel PM emissions and a 54 percent reduction in NOx emissions in 2035.

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are the San Francisco Bay Area and South Coast air basins, which were study areas selected to evaluate potential cancer risks and health impacts from harbor craft emissions. The maps on the slide show cancer risk in the absence of the proposed amendments in the year 2038. The gray shaded areas represent disadvantaged communities near the seaports, and the different colored areas represent cancer risk in chances per million, yellow being only one chance per million ranging up to the dark blue color near the ports of Los Angeles and Long Beach representing over 900 chances per million.

These charts show the large area surrounding the seaports where cancer risk is detected with elevated levels of cancer risk shown, and the disadvantaged

communities that are affected.

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The next slide shows the reductions in cancer risk the proposed amendments would have on these two air basins.

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TTD AIR RESOURCES ENGINEER HOUCHIN: As you can see, the area of impact and cancer risk levels are drastically decreased. The proposed amendments reduce cancer risk to over 22 million residents, reduce the population-weighted cancer risk from greater than 10 to only one chance per million, and they eliminate cancer risk of greater than 100 chances per million in the two study areas.

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TTD AIR RESOURCES ENGINEER HOUCHIN: The benefits of the proposal would result in an estimated 531 avoided premature deaths, 161 avoided hospital admissions, and 236 avoided emergency room visits. The estimated monetary value of the health benefits reaches over \$5 billion, while the costs are estimated at \$2 billion.

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TTD AIR RESOURCES ENGINEER HOUCHIN: The cost of compliance assumed no incentive funding is used, although some may be available to operators through programs such as the Carl Moyer Program, Volkswagen Mitigation Trust,

and Proposition 1B goods movement.

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Incentive funding opportunities will still exist after the adoption of the amendments. However, as with all regulations, there are not enough incentive funds to help pay for all fleets to meet compliance. Staff will continue to monitor funding opportunities and update the incentive fact sheet accordingly to help keep fleets informed.

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also proposing a fee structure to recover the costs of implementation and enforcement of the amendments through fees paid per vessel and per main engine. The fees are 25 percent lower for fleets operating only one vessel and 50 percent higher for low-use compliant engines, due to the additional staff time required to review demonstrations and applications for low-use engines.

If an operator fails to pay the compliance fees by the due date, they would be subject to a late fee per each unpaid vessel and each unpaid engine.

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TTD AIR RESOURCES ENGINEER HOUCHIN: CARB staff conducted analysis on the potential cost increase passed to consumers resulting from the cost of compliance for certain vessel categories as shown here.

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TTD AIR RESOURCES ENGINEER HOUCHIN: CARB staff received over 3,200 comments on the proposed amendments. The next two slides summarize -- slides summarize the most common comments and CARB staff's responses to each concern.

We received many comments in support of more stringency and more ambitious zero-emission requirements. As mentioned earlier in the presentation, staff has included pathways for broad zero-emission adoption in the proposal, as well as incentives such as the zero-emission credits to maximize zero-emission adoption where operationally feasible.

We also received comments with concern about lack of availability, performance, safety of engines and aftertreatment devices, and fuel requirements.

We have identified 22 models of Tier 4 engines certified today and the use of engines plus aftertreatment devices is proven technology already in use in other sectors.

Extensions are available if, among other criteria being met, engines do not fit or are not available by compliance dates. All proposals are designed to maximize emission reductions to the extent technically and fiscally feasible.

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TTD AIR RESOURCES ENGINEER HOUCHIN: We have received comments with concern over the cost of compliance, and on the other hand, we've received requests to eliminate or shorten compliance extensions to increase near-term emission benefits and meet near-term air quality targets.

Incentive funding may be available for early compliance. And vessels with the greatest emission have earlier compliance dates as they are prioritized for near-term emission reductions. Additionally, compliance extensions of up six to eight years provide additional time that may be necessary for vessel owners to increase costs and save for new vessels.

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TTD AIR RESOURCES ENGINEER HOUCHIN: In accordance with California Environmental Quality Act, or CEQA, guidelines, staff prepared a Draft Supplemental Environmental Analysis for the proposed amendments and released it for public comment. We will present the Final Supplemental Environmental Analysis and written response to comments received to the Board at a second Board hearing planned for the first quarter of 2022.

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TTD AIR RESOURCES ENGINEER HOUCHIN: CARB staff

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recommend returning to the Board with the final proposal for adoption in early 2022.
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Thank you for your time. We'd be happy to answer any questions.

CHAIR RANDOLPH: All right. Thank you.

So we need to take a 10-minute technical break, and then we will be back with public comment for this item. So we will be back in 10 minutes.

(Off record: 3:47 p.m.)

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(Thereupon a recess was taken.)

(On record: 3:57 p.m.)

CHAIR RANDOLPH: All right, we are back from our break. Thank you very much.

Okay. We have quite a bit of speakers on this item, so the time limit on this item will be one minute and 30 seconds. So we will have a clock, a one minute and 30 second clock for the speakers.

So, Board Clerk, can you go ahead and call the first few commenters

BOARD CLERK ESTABROOK: Yes, thank you.

The first few commenters are going to be Joseph Kleitman, Andrea Lueker, and Steven Taft.

Joseph you may unmute and begin.

Joseph, are you there?

JOSEPH KLEITMAN: Yes. I'm trying to be. Have

you got me?

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BOARD CLERK ESTABROOK: Okay, we can hear you. Yep.

JOSEPH KLEITMAN: Okay. Thank you.

First of all, I just want to thank everybody for their endurance over a long day. I've had to do this like you and appreciate the time you are all putting in. I have sent in comments that speak to my feelings that this is premature. We have over 3,200 comments for a vessel fleet of 3,100 boats. That tells me something.

I think you should be very careful when you start to impact negatively the livelihood of so many coastal residents that depend on this fleet of harbor vessels for their livelihoods. It's families. It's folks. It's people. And be very, very careful, because the kinds of changes that are being proposed honestly don't have very many good solutions. They need much more time. And as I mentioned, as you were looking at the budgeting priorities earlier, I haven't seen a lot of investment going towards this particular problem. And I think you need to get that in place. Those incentives need to be realized in the real world, where they can help people come up with good solutions. You've got a group of vessel operators who want to be compliant and are strictly just, just restricted by the limitation of options.

So please be very careful --

BOARD CLERK ESTABROOK: Thank you.

JOSEPH KLEITMAN: -- as you proceed. I think there's no hurry.

Thank you.

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BOARD CLERK ESTABROOK: Thank you. Andrea Lueker, please unmute and begin.

ANDREA LUEKER: Great. Can are you able to hear me?

BOARD CLERK ESTABROOK: Yes.

ANDREA LUEKER: Perfect. Andrea Lueker. I'm the President of the California Association of Harbor Masters and Port Captains. Our association is in its 73rd year. Our membership includes over 70 harbors, ports, and marinas in California, as well as a number of marine-related businesses. We are concerned about the proposed Commercial Harbor Craft Regulations. Those concerns were summarized in two joint letters written and sent to you, one dated October 28th and one dated November 3rd and those letters were with a number of other similar agencies.

Should the proposed regulations be approved, it will likely be impossible for many sportfishing and whale watching businesses to continue to operate and devastating economically to harbors, ports and marinas where they do

operate. Additionally, these vessels provide an opportunity for hundreds of thousands of the public to enjoy fishing and being on the open ocean.

Our ask today is to direct your staff to reengage -- key, key, reengage with the harbor, port, and marina groups, boat construction firms, the United States Coast Guard, and other groups as applicable to mutually develop effective, economic, and feasible amended regulations. Thank you for the opportunity to speak. It's been a long day and our association looks forward to continuing dialogue with you on this issue.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Steven Taft. After Steven will be Michael Geller, Jamie Diamond, and Sam Wilson.

Steven, you may unmute and begin.

STEVEN TAFT: Hi. My name is Steven Taft. I'm a third generation commercial passenger sportfishing vessel owner, like my father and grandfather before him. I provide affordable ocean access through sport fishing ecotourism trips from San Diego. Our family has transported hundreds of thousands of passengers throughout the years.

As a business owner, I want the Board to

recognize I do support emissions and reductions. We have participated in the Carl Moyer Program. My concerns with this rule as written are many. However, most notably, I wish to highlight the following. Fitment. Current technologies, such as bulky exhaust filters, simply will not fit in our vessels. Exhaust aftertreatment systems and filters have yet to be certified for, or used, or have been proven to safe in a passenger-carrying environment.

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The extension process is confusing and expensive. CARB staff assessment of vessel replacement costs are nowhere near realistic and cannot be supported with our tight margins. We would not be able to afford to build a new vessel based on the realistic quote provided by a shipyard or even the unrealistic quote that CARB staff proposed.

Our fleet, my business, caters to those who cannot afford vessel ownership in a lower economic demographic. Those in lower economic communities or on fixed incomes will no longer be able to afford fishing on our vessels or ecotourism, thus effectively ending our family business along with almost every other family-owned commercial passenger fishing vessel businesses.

Thank you very much for your time.

BOARD CLERK ESTABROOK: Thank you.

Michael Geller, please unmute and begin.

MICHAEL GELLER: Yes. Hello. Good afternoon,
Chair Randolph and members of the Board, My name is
Michael Geller. I'm Deputy Director for the Manufacturers
of Emission Controls Association. MECA represents
manufacturers of combustion and electric technologies that
reduce both criteria and greenhouse gas emissions from all
mobile sources. Our members include companies that
manufacture engine and exhaust system components, like SCR
DPF technologies, for both new and existing engines that
can reduce NOx and PM emissions from harbor craft. MECA
supports CARB's commercial harbor craft proposal and we
support -- or appreciate staff's hard work in developing
this rule, including meetings with MECA and other
stakeholders.

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Given we have submitted written comments, I'd just like to highlight a few points related to this regulation. Technology such as SCRs, DPS, and DOCs, or diesel oxidation catalysts, are widely available today. They've been installed on millions of highway and off-road engines since 2007. Proper application engineering over the past 20 years has resulted in the successful installation of these technologies on a variety of marine engines today.

That being said, marine engines applications pose unique operating environments. Each marine vessel has

different engine and space constraints requiring customized aftertreatment solutions, similar to stationary engine retrofits. Thus, we urge CARB to consider potential flexibilities during verification of these retrofits. For example, additional in-use testing as well as on-board monitoring and reporting could be used to confirm that retrofits are performing as verified rather requiring significant up-front testing.

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Furthermore, similar to stationary source compliance, emission controls like DPFs can be periodically checked by a simple opacity stack test.

To conclude, we thank you for your efforts and our industry continues to innovate and commercialize these technologies. Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Jamie Diamond, you may unmute and begin.

JAMIE DIAMOND: Good afternoon, Chair Randolph.

My name is Jamie Diamond. My husband Captain Jason and I are on the Board of Directors for the Sportfishing

Association of California and I'm an elected school board member in Carpinteria. Jason and I, along with our three young children, own two sportfishing vessels, which has taken hundreds of thousands of people out on day trips from Santa Barbara since 1996.

We partner with local, State, and federal

agencies for fisheries research projects, and most importantly, we partner with the Santa Barbara Maritime Museum facilitating floating marine labs to Santa Barbara County Title 1 school third and fourth grade students, providing most of them with their first ocean interaction as part of the social justice programs that our industry provides and was noted in the Fish and Game Commission letter.

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The proposed CARB regulations will have drastic, negative impacts on our businesses, our communities, and these programs. For passenger carrying vessels, we cannot change anything on our boats without Coast Guard oversight and approval. DPF is not possible here. CARB has stated they're aware and we will just have to replace all the vessels in the fleet with steel. Why? Because the proposed equipment runs too hot, it isn't safe for use in wood or fiberglass, and the expansion and contraction will break welds on aluminum boats. The DPFs are notorious for clogging under operating conditions.

For a truck, pull over, get out, wait for tow, no big deal. If that were to happen on a passenger vessel, it would leave us dead in the water. What if that happened mid-shipping channel crossing with weather picking up, near the shore, entering and exiting harbor mouths, the crew would only have seconds to fix the

problem to avoid a disaster. You can't safely fly a tech out to a vessel to work on your system for two hours and get it operational like you can a farm tractor.

It would be irresponsible to adopt these proposed regulations. The lives of our passengers and crew members are at stake here. Please err on the side of caution, put CPFVs back in with commercial fishing vessels, continuing our access to grant money to upgrade to the best available and safe engines. This is how you preserve our affordable ocean access --

BOARD CLERK ESTABROOK: Thank you. That concludes your time. Thank you.

JAMIE DIAMOND: -- as to how best to plan a path to 2045.

BOARD CLERK ESTABROOK: Thank you.

Sam Wilson.

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SAM WILSON: Hi. Good afternoon, everybody.

Thanks so much for the opportunity to comment. My name is Sam Wilson and I'm a Senior Vehicles Analyst with the Union of Concerned Scientists.

UCS supports the Board's efforts to reduce emissions from harbor craft, but we do have several high level recommendations to effect a more successful regulation. These include requiring annual technology reviews, given the ongoing rapid development of

zero-emissions technologies, and required 100 percent transition to zero-emissions for -- vessels for all ferries, tugboats, dredges, and barges by 2035, where feasible, in line with the Governor's Executive Order 79-20.

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Emissions from harbor craft are currently one of the primary cancer risks for Californians living close to major ports. The proposal -- the proposed rule would reduce cancer risks and other negative health outcomes for millions of Californians resulting in hundreds of fewer premature deaths, hospital visits, respiratory illnesses, and over \$5 billion in health-related savings.

This is particularly impactful for those communities living close to ports, which already bear a disproportionate exposure to cumulative air toxins.

Zero-emissions technologies are available and ready today. And UCS suggests that CARB consider and expand incentives and funding for small businesses -- small business vessel operators to transition quickly and equitably to a clean transportation future.

California has a rich history of adopting effective regulations that spur innovation while reducing toxic air pollution. We encourage the Board to continue this history and adopt a strong, public-health focused regulation to further expand existing zero-emissions

vehicles technologies -- vessels technologies, excuse me, affecting more equitable access to clean and healthy air and significantly reducing exposure to cancer-causing pollution for millions of Californians.

Thanks so much and -- for your hard work on this draft and we welcome your questions offline.

Thanks.

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BOARD CLERK ESTABROOK: Our next three speakers will be Gary Brennan, William Wilkerson, and Jibiana Jakpor. And I apologize in advance if I mispronounce any of your names.

Gary, you may unmute and begin.

GARY BRENNAN: Good afternoon, Chairman Randolph and members of the Board. My name is Gary Brennan. I'm the President of the San Diego County Wildlife Federation representing 20,000 San Diego country residents.

We oppose the proposed CARB regulations for installing interior -- non -- well, little existing Tier 4 engines for commercial and passenger vessels. As stated in numerous reports, is engines don't really exist for smaller commercial passenger fishing vessels. Engines once designed and made available due to their size and configuration will present stability concerns due to the placement of new and larger engines in a tight engine room with most vessel.

Your modifications to the existing fleet does not -- has not been vetted or approved by the U.S. Coast Guard, the licensing and regulatory body for all private and commercial vessels at sea. Passenger fees are already to the point where fishing offshore on these vessels is out of reach for most underprivileged communities with price increases due to the Tier 4 engine modifications passed on to the passenger vessels, sometimes with five to six million dollars in cost.

The future leads to the demise of the sportfishing, whale watching, scuba diving fleets. The Federation urges the Air Resources Board to take a step back and further review the impacts to the state's sportfishing communities and others, and at least postpone regulations till the Coast Guard has had a chance to vet the newer regulations, the engine manufacturers to design and build reliable Tier 4 marine engine placements. So thank you very much for your time.

BOARD CLERK ESTABROOK: Thank you.

William Wilkerson.

Are you there?

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WILLIAM WILKERSON: Hi. My name is William Wilkerson, a minority owner of the -- of Malihini out of H&M Landing.

Our industry is in danger of losing not only our

livelihoods as small businesses owners, but the potential learning opportunities of countless children, especially the underserved communities of San Diego County, some of -- some of whom may not get a chance to experience the joys of learning about sea life or fishing in the Pacific Ocean.

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I run a full-day sportfishing charter and educational school trips for multiple school districts in San Diego County and fish in international waters. A new metal vessel build would cost me anywhere from 4.6 to 6.6 million dollars. That ticket price would go up 97 to 201 percent. My demographic won't support that. And at the end, we eliminate them from their shared resource. Our biggest impact is -- as an industry, is economic and social economic one, to be -- to be potentially shut down due to regulations disproportionately affecting our operators with regulations requiring we upgrade to systems not yet available for our vessels and not tested for safety while at sea.

Today, I ask the commercial passenger boats are regulated the same as commercial fishing boats, those who fish for market. However, CARB staff wants to remove 174 of those vessels, 10 percent of the harbor crafts, and impose an impossible standard.

BOARD CLERK ESTABROOK: Thank you.

WILLIAM WILKERSON: The CARB Board --

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BOARD CLERK ESTABROOK: Our next speaker will be Jibiana Jakpor. After Jibiana, we will have Martin Froger Silva, and Regina Hsu, and Teresa Bui.

WILLIAM WILKERSON: They cut me off.

BOARD CLERK ESTABROOK: Jibiana, you may unmute and begin.

JIBIANA JAKPOR: Hello. My name is Jibiana

Jakpor. I'm a high school student from Riverside who

likes breathing clean air. Thank you, CARB staff, for

these proposed amendments. Saving even one life is a big

deal, but you project that these amendments will save 531

lives between 2023 and 2038, so this rule is saving our

lives. Some folks are more concerned about saving our

boats. Well, fortunately, our boats will be fine. This

rule isn't getting rid of boats. It's just making them

cleaner.

Our state has taken many steps to reduce the pollution from our cars and our zero-emissions cars are great. They're getting more and more affordable, and they work just as well and are better for our health. The proposed amendments for boats will be just like that, our maritime economy will prosper and so will our community's health.

Board Members, please support these amendments to

ensure our continued progress towards cleaner air.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Martin Froger Silva, you can unmute and begin.

MARTIN FROGER SILVA: Can you hear me?

Okay. Good afternoon Chair Randolph, Board members, and CARB staff. My name is Martin Froger Silva and I am a student at the Scripps Institution of Oceanography In La Jolla and I've been a coastal California resident for five years.

The statement I make today reflects my own personal views. I'm here today to voice my support for the proposed amendments of the Commercial Harbor Craft Regulation being considered today.

As the staff presentation demonstrated, (inaudible) that repeated exposure to air toxics emitted by harbor craft, such as PM2.5 and nitrogen oxides increase asthma, cardiovascular issues, cancer risk, and premature death in both coastal and inland communities. Reducing emissions from harbor craft will improve the state's air quality, reduce air pollution related to cancer death -- and deaths, and save the state billions of dollars in related losses, as well reduce unequal exposure to air toxics, especially among disadvantaged communities.

This is a win for everyone, including harbor

craft owners, operators, and their customers who are directly exposed to these harmful pollutants. In addition to the direct health benefits related to air pollution, these amendments will help California lower its greenhouse gas emissions, which contribute to global warming, and accelerate climate change.

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Given how our state is on the frontlines of the climate emergency, reducing greenhouse emissions everywhere should be one of our top priorities, especially since climate change has led to increased wildfires in recent years and also released dangerously high levels of PM2.5 particles further harming Californians.

Given CARB's mission and long history of protecting the public from the harmful effects of air pollution and fighting climate change, the proposed amendments should be passed to ensure that all Californians can breathe easier.

Thank you and have a good weekend.

BOARD CLERK ESTABROOK: Thank you. Regina Hsu.

REGINA HSU: Chair Randolph and members of the Board, thank you for the opportunity to comment. My name is Regina Hsu and I'm an attorney with Earthjustice.

We support CARB adopting a strong commercial harbor craft rule as soon as possible. The rule will save over 500 lives and bring much needed health benefits to

port communities bearing the brunt of pollution caused by the ongoing shipping crisis.

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CARB's recent reports on ships at anchor at the Port of LA and Long Beach show that increased activity at the ports means we may not see the important health benefits from the At Berth Rule CARB passed last year. We need agencies like CARB to act now on this port pollution crisis, and this rule is an important step in that direction.

We strongly support the zero-emission requirements for short-run ferries and new excursion vessels. But this isn't enough for polluted areas like the South Coast and San Joaquin Valley. We echo the Union of Concerned Scientists suggestion for CARB to include an annual technology review. And we also recommend that CARB explore using contingency measures to set more zero-emission targets for harbor craft like tugs in areas that can't afford more NOx and diesel pollution.

This approach will also help chart a necessary path to getting harbor craft to a hundred percent zero emissions by 2035. The Board should also reject efforts to delay or weaken the rule. Tier 3 engines pollute 3.5 times more NOx emissions than Tier 4 and we can't have this additional pollution in places like the South Coast.

Please prioritize public health and move forward

with this rule. Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Teresa Bui. After Teresa, will be Lisa Lavelle, Karen Jakpor, and Michael Fleming.

Teresa, you may unmute and begin.

TERESA BUI: Thank you. Hi. This is Teresa Bui with Pacific Environment again. We're a nonprofit and we have a consultative status at the International Maritime Organization, which sets shipping laws. Thank you to staff on the hard work on this rule. This rule will help save lives, and improve public health. And we are particularly supportive of the expanded vessel categories and the zero-emission requirements on short-run ferries and excursion vessels.

However, we still think that the rule misses the opportunity to embrace electrification solutions for this sector and to set clear market signals. We are in a decade of climate emergency. We're seeing longer wildfire season or droughts, and this rule will only achieve an eight percent reduction in greenhouse gas. So we're urging you to push for a stronger rule by requiring a hundred percent zero-emission to transition for tugboats, ferries, barges, and dredges by 2035 and to direct State investments to support the successful transition,

especially for smaller businesses. This will help save lives, create green jobs, and advance environmental justice.

And you have received letters from ship design builders and battery producers, such as Navtech and ABB Marine that says it is feasible to get to zero emission by 2035. And if CARB is not able to add more zero-emission vessels, we ask that the Board direct staff to use -- explore using contingency measures to achieve more zero emissions in harbor craft. And to do a technology, we review every year instead of three years to further strengthen the rule. Thank you so much.

CHAIR RANDOLPH: Clerk, I just wanted to ask if anyone is planning on commenting and has not yet raised their hand or dialed star nine to get into the queue, to please go ahead and do that now and we'll close the queue at 4:25.

Thank you.

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BOARD CLERK ESTABROOK: Thank you. Our next speaker will be Karen Jakpor. Karen, I have activated your microphone you can unmute yourself and begin.

DR. KAREN JAKPOR: My name is Dr. Karen Jakpor and I support a stronger harbor craft rule. I'm from Riverside and I'm a physician volunteer with American Lung Association I also the point of view of a patient who has

been hospitalize countless times with severe asthma. We should always remember that air pollution kills when we are considering regulation. It's not too much burden to save lives and prevent illness. And this rule includes grace periods and includes incentive funding.

Cleaning up the air in every way we can really does matter. We cannot focus only on cars and trucks and give boats a pass. One sportfishing boat produces the equivalent exhaust of 162 diesel school buses. CARB's proposed rule would have over \$5 billion of public health benefits from 2023 to 2038. And it would prevent over 531 premature deaths.

Boats are important. I support the proposed amendment and I would encourage CARB to expand requirements for zero-emission technologies to a broader range of vessels for 100 percent zero-emissions harbor boats by 2035.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Lisa Lavelle.

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LISA LAVELLE: Thank you. Lisa Lavelle, city council member for the City of Avalon on Catalina Island. I ultimately support the Commission's goal in getting to a 100 percent zero-emission economy and would like to just discuss the challenges with doing that in the timeline set

forth. The additional cost and the inability to retrofit passenger service that is the primary life-line for our 4,000 residents on this island to get to and from their doctors offices, schools, and other meetings on the mainland would be a massive challenge for us to overcome.

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The companies that do this service are public companies, and therefore -- excuse me private companies and therefore could not pursue public funds. And we're unable to pursue those public funds on their behalf to be able to make these retrofits happen in the time proposed.

I would ask that you look at an option that allows us to, as we've done already, be a head of the curve in terms of getting to the tiers that you're asking us to be at and be able to receive extensions until the timeline allows for us to have those companies purchase the suitable ferries that would allow us to continue service. This will help both our local economy and our local citizens be able to maintain their connection to the mainland.

I thank you all for your work, your service, and your time, and wish you well.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Michael Fleming. After Michael Fleming. After Michael will be Barry McCooey, Frank Rescino, and Wayne Kotow.

Michael, you may unmute and begin.

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MICHAEL FLEMING: Thank you very much. My name is Mike Fleming. I'm from Orange. I'm a recreational fisherman. I regularly -- I regularly take my 10-year grandson with me on passenger fishing vessels from various docks from Ventura to San Diego. I'm retired and I'm on a fixed income. On average, one-third of the fishermen who are on the boats that I go on are in my age group, which is 60 to 80 years old. If passenger fishing vessels need to be replaced, the cost of a fishing ticket will be increased so much, I, along with tens of thousands of other people, will not be able to continue to fish. We'll be priced out.

This requirement is not only unfair. It will ruin the recreational fishing industry. There must be another way to extend compliance or exclude passenger fishing vessels further. To ruin or cripple an industry of mostly family businesses, some of up to 80 years old, will destroy jobs and ancillary businesses as well. I saw nothing on the report regarding the incoming cargo ships in Long Beach, San Francisco, and San Diego, military Coast Guard, and other security ships that use these fuels. All of these ships put millions of tons of matter into the air.

If fishing Passenger vessels are required, all

ships should be required as well. I thank you for your time and hope you will take my comments under consideration. Have a nice weekend.

BOARD CLERK ESTABROOK: Thank you.

Barry McCooey.

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BARRY MCCOOEY: Thank you very much, Madam Chair, CARB, Board, and staff. I'm Barry McCooey. And I'd like to introduce M&H Engineering, and our range of certified EPA Tier 4 marine engines that comply with the proposed CARB regulations below 600 kilowatts. Our engines reduce CO2 by 30 percent, particulate matter 97 percent, and NOx by 96 percent compared to a Tier 1 engine.

I've read through the 3,265 comments submitted for and against the proposal. I'd like to speak directly to the family owner operators of sportfishing, whale watching, small ferry operators. I hear you. I understand your concerns about this proposal, but there is a lot of bad, poor, and misinformation being put out amongst your groups on this technology. M&H Engineering will meet your needs and allow you to continue operating your vessel as you do today. I'll break it down simply into three Ps.

Power. Today, we have engines from 75 horsepower to 425 horsepower with much better torque curves that you're used to. We'll be working on a range of engines

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from 500 to 900 horsepower next year. These engines have all got the shielding and thermal temperatures that you're used to work to with the Tier 2, Tier 3 marine engines.

Package. This is where the misinformation regarding the size and weights of the Tier 4 marine engines is. Our engines have good power-to-weight ratio that are compact, integrated, fuel efficient, and highly liable. They're very similar to the engines --

BOARD CLERK ESTABROOK: Thank you. Thank you.

Our next speaker will be Frank Rescino.

Frank, you may unmute yourself and begin.

Frank, are you there?

FRANK RESCINO: I'm unmuting. Can you hear me

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BOARD CLERK ESTABROOK: Yes, we can.

FRANK RESCINO: Okay. My name is Frank Rescino.

17 I have the Lovely Martha Sportfishing. I'm a

third-generation fishing -- fisherman. My family has been

in business since 1908, that's 113 years. I don't know

20 why I'm the only prob -- person that has a problem with

your 162 buses. I looked at the data that you used. You

used a Tier 2 800-horsepower engine at full power against

the 375 power four tier bus engine.

When we're fishing with our boats, the average

25 boat in the San Francisco Bay Area has a 400-horsepower

engine. That knocks you down to 80 buses right there. We run our engines while fishing at 10 percent power. Now, we're down to a lot less buses. We only run at 50 percent power max. Your 162-bus theory is just way blown out of proportion. We are not a ship. We are not a tug. We are not a dredge.

We don't -- I have -- I have the most modern engine you could buy. I have a Tier 3. I upgrade all the time. There's no money for these Tier 4s yet. There's no money for a new boat. My boat is paid for. Are you going to give me \$2 million, so my son and my grandson can be forth and fifth generation?

I'm sorry I'm a little upset about this, but your numbers are entirely off. We are not an 800-horsepower boat and you've got to look at it again.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Wayne Kotow. After Wayne, we will have Troy Sears, Fred Main, and Raquel Maronde.

Wayne, you may unmute and begin.

WAYNE KOTOW: Good afternoon, Chair Randolph,
Board, and staff. Wayne Kotow with Coastal Conservation
Association of California representing the millions of
anglers who depend on our sportfishing fleet for our
access to our precious resources.

We want to emphasize the importance of the sportfishing and whale watching fleets provide to our communities and tourism. This is the main access for the majority of the people to experience our oceans. But even more, our fleet provides the platforms for much of the marin science being used for MPA reviews, biodiversity, ecotourism, and stock enhancements.

They also are the access benefiting our veterans, handicapped, and most importantly our kids. This fleet is the only way our underserved communities will have access as mandated in the 30 by 30 Coastal Access For All Plan, which is access for education, transportation, and recreation.

We are just asking for our -- for safe and realistic regulations that are achievable as we all work towards our zero-emission goals.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Troy Sears, you may unmute and begin.

TROY SEARS: Hello. My name is Troy Sears and I an owner and op -- and founder of Next Level Sailing. We operate Whale watching and other excursions in San Diego from 141-foot sailing schooner. Best I can tell, we carry more passengers in the state of California using wind as our primary propulsion.

When the proposed regulations were released, I was expecting to find a place for wind and sailing vessels, a 5,000-year old technology. So I was very disappointed to see that sailing and wind are not included in the regulation as a zero-emission hybrid option. To be clear, the world "wind" does not exist in the regulation and that is disappointing and confusing, because the vessels in our state operated using wind as a hybrid, it would immediately reduce emissions from harbor craft by over 90 percent.

So simply put, I'm asking CARB to include wind and sailing in the proposed regulations as a propulsion source and a zero-emission hybrid option.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

And as the Chair mention, the list to sign up is now closed.

And so now let's move on to Fred Main. You may unmute yourself and begin.

FRED MAIN: Madam Chair, members of the Air Resources Board. Fred Main on behalf of the Chamber of Commerce Alliance of Ventura, Santa Barbara, and San Luis Obispo counties representing 11 local chambers in the three-county coastal area. And I'm appearing today to oppose the current version of the Commercial Harbor Craft

Regulation.

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The three coastal counties, sportfishing, whale watching, and cruises are an important part of the tourist economy in all three counties, and we're very concerned that the regulation of the sportfishing vessels in the current regulation will have a very detrimental effect on that tourist economy.

We endorsed the sportfishing industry's proposal asking the Board to direct staff to reconsider the regulation and include the sportfishing vessels, along with the rest of the commercial fishing fleet.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Raquel Maronde. After Raquel will be Douglas Shaftel, Jorge Daniel Taillant, and then Paul Strasser.

Raquel, you may unmute and begin.

RAQUEL MARONDE: Chair Randolph and members of the California Air Resources Board. My name is Raquel Maronde and I'm a graduate student at Scripps Institution of Oceanography. I'm here representing myself and the statements expressed are of my own opinion.

Initially, I came here today in support of the proposed amendments, if changes were made to better support small business passenger vessels. However, upon

hearing from staff members earlier today and further analysis of funding opportunities for small business passenger vessels, I am in full support for the proposed amendments.

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As a student at Scripps Institution of
Oceanography, you may assume our support stems from the
technological innovations and push for less emissions. I
support this, of course, but I am more deeply concerned
about the health of ports and surrounding communities. I
am sure many of you know of someone or have personally
battled with cancer. It has plagued my life as I watch my
mother suffer four different cancers at four different
stages in her life.

DPM, as you know, represents 70 percent of total known cancer risk. The proposed amendments have the potential to reduce DPM emissions by 89 percent from the current regulation and this matters, especially for the disadvantaged communities living within 50 miles of ports and marine emission areas that they historically are at a greater risk for air pollution, exposure to carcinogens, and other compounding health concerns.

The proposed amendments will save lives and 5.25 billion in health care costs. I think there is great promise with these amendments and I appreciate CARB for their extensive research into the environmental, health,

and economic impacts of the amendment. Thank you for considering the harmful effects and reduction of carcinogenic DPM. You have my support and thank you for the opportunity to comment.

BOARD CLERK ESTABROOK: Thank you.

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Douglas Shaftel, you may unmute and begin.

DOUGLAS SHAFTEL: Chair and members of the Board, my name is Doug Shaftel and I live in San Diego, where I'm a graduate student at Scripps Institution Oceanography. I make this comment solely in my personal capacity.

While I favor adopting more stringent technology standards, I ask that CARB directly address two concerns raised about the CPFV's transition. One, that there are potentially duplicative compliance costs to meet zero emission goals, and two, that there may be inadequate funding to support compliance.

Before adopting a final rule, CARB should address CDFW's comment that by requiring an intermediate technology standard before eventually adopting a zero emissions standard, CARB may be imposing duplicative compliance costs. There's a significant possibility that the same health objective can be achieved by, for example, going directly to zero emissions, but over a slightly longer time frame to avoid disruptions to the CPFV fleet. I believe it should be considered.

Further, although the Carl Moyer Program does appear to provide funding for marine vessels that are retrofitting, it is unclear whether it would provide funding for new vessel purchases when such retrofits are infeasible. Hopefully CARB can work with the Legislature to provide additional funding support for small businesses that lack the resources to achieve compliance.

We as a society must act without further delay to address disparate health outcomes caused by air pollution emitted from marine vessels, These disadvantaged communities are composed of our families, friends, neighbors, and community members who suffer disproportionate harm for pollutants emitted from marine industries.

I applaud and support CARB's leadership in this issue and thank the Board, and especially its staff, for all the work they've done on this important regulation.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Jorge Daniel Taillant, you may unmute and begin.

JORGE DANIEL TAILLANT: Yes. Daniel Taillant from the Center for Human Rights and Environment. We commend Governor Newsom's call to California agencies to propose further reductions of GHG emissions and ensure that we -- that we reduce emissions faster.

The IPCC tells us in their last report issues just over two months ago that reducing short-lived climate pollutants, like black carbon and methane, quickly and aggressively is the only pathway to keep global warming to 1.5 C.

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It was great to see California climate leadership, including Chair Randolph in Glasgow offering the California experience to the world, and the world is watching, which is why this is so important. Urgency is the key message from Glasgow as Jared Blumenfeld said moments ago. This is why it is so important that the commercial harbor craft regulations aim for 100 percent zero emissions by 2035, requiring only 14 percent of harbor crafts to meet this target and only achieving eight percent reduction in GHG simply falls far too short.

The shipping industry must do its part in lowering GHG emissions and CARB can lead the way. We know that AB 617 communities near port areas are the most affected by poor air quality suffering severe respiratory and other health problems. Living near a dirty port can shorten your life expectancy by nearly a decade.

We've heard the health benefits from the presentation earlier today, but doing 100 percent zero emissions by 2035 will be much better multi-fold even. It will also help promote environmental justice and climate

equity. This is the moment for CARB to help clean the air for port communities. A strong zero-emission harbor craft regulation is simply the right way to go.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Paul Strasser. After
Paul will be Kelly Baughman, Jared Davis, and then William
Barrett.

Paul, you may unmute and begin.

Are you there?

PAUL STRASSER: Hello. Hello, can you hear me?

BOARD CLERK ESTABROOK: Hi, we can hear you.

PAUL STRASSER: Yeah. Can you hear me?

BOARD CLERK ESTABROOK: Yes. We can hear you.

Yes, we can hear you.

PAUL STRASSER: Very good. Good afternoon. My name is Paul Strasser. I've owned and operated commercial fishing vessels for over 38 years. For decades, the boat owners have already transitioned from a Tier 0 to now the Tier 3 engines thanks to taking advantage of the Carl Moyer Program. CARB staff have been telling the media that the basis of this proposal regulation is that one commercial passenger boat generates as many emissions as 162 buses.

This analogy is not supported by facts. CARB is

comparing the emissions of two boat engines at full throttle to a single bus operating at 20 miles an hour. Bus engines are smaller and less horsepower than the engines used on our boats. Passenger boats do not run full throttle all the time. They're trolling. They're slow down. They're anchored most of time -- a majority of the time.

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The Tier 4 engines are not available for boats, only buses and trucks. The major engine manufacturers like Caterpillar, Cummins, John Deere, Scania, Mitsubishi are not planning on building a Tier 4 engine for the California market. This comparison disregards the facts that most of our boats are -- already have Tier 3 engines, due to the Carl Moyer Program. And even without this proposal, our passenger boats in due time would be -- would eventually transition to a Tier 4 engine using Carl Moyer funding.

When school buses are upgraded, they use a hundred percent taxpayer money. CARB is not offering this to buy owner a new boat. What the regulation does do, it denies the boat owner access to the Carl Moyer --

BOARD CLERK ESTABROOK: Thank you.

PAUL STRASSER: -- funding program for Tier 4 engines.

BOARD CLERK ESTABROOK: Thank you.

Our next Speaker is Kelly Baughman. Kelly, you can unmute yourself and begin.

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KELLY BAUGHMAN: Hi, Can you hear me?
BOARD CLERK ESTABROOK: Yes.

KELLY BAUGHMAN: Perfect. Thank you.

My name is Kelly Baughman and I am the Director of Environment for Crowley Maritime Corporation, the largest operator of U.S. flagged commercial vessels.

Madam Chair, members of the Board, thank you for the opportunity to speak with you today. Crowley has served call for 130 years and we share CARB's mission of reducing the harmful effects of air and climate pollution for the safety of all Californians.

The proposed regulation fails to address the unique nature of articulated tug barges as recognized by this Board in Resolution 20-22, and in doing so ignores their vital role in providing safe and efficient bulk liquid transportation along the U.S West Coast. ATVs operate in a manner identical to ocean-going vessels and require more flexible alternative compliance pathways than those included in the proposed regulation to meet our shared goal of cost effective and impactful emissions reductions in California's most sensitive airsheds.

We have communicated with CARB staff, including ATVs and the CHC inventory and potential violation of CEQA

may have the unintended commercial consequence of shifting this trade to less environmentally friendly modes. This will likely result in a net increase in emissions for California port communities, the opposite of what this rule aims to achieve.

Accordingly, we at Crowley urge CARB to again set our ATVs as distinct from harbor craft and to work with industry to develop and implement broader and more innovative alternative compliance pathways.

Thank you. Have a great weekend.

BOARD CLERK ESTABROOK: Thank you.

William Barrett.

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Oh, I'm sorry Jared Davis. You may unmute and begin. We'll come back to, Will.

JARED DAVIS: Yes. Hi. My name is Jared Davis.

I am Board Member on Golden Gate Fishermen's Association,
as well as Golden State Salmon Association. I also have a
long-running contract with a conservation-based nonprofit
organization offering ecotourism and whale watching trips.

I'm going to say something that you're probably not expecting. Thank you so much for putting us last on the agenda today. It gave me an opportunity to do what I love, be out on the ocean and take a whole bunch of people out and make them happy.

I was 20 miles offshore today on a fishing trip

with my Tier 3 engine, well outside of State waters, I might add. And I believe that you're misrepresenting that in a lot of ways. A lot of the boats have been upgrading their engines as quickly as possible. I'm not going to go into too much detail. It's clear that the economic feasibility and technological feasibility of this regulation is not likely to be met at this point in time. Stability and safety are an issue. The lack of Coast Guard involvement and drafting this regulation is a stunning oversight.

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And it looks like my time is up. I had more to say, but thank you for your time.

BOARD CLERK ESTABROOK: Thank you.

Okay. Will Barrett, you may unmute and begin.

WILL BARRETT: Thank you. My name is Will Barrett. I'm the National Senior Director for Clean Air Advocacy with the American Lung Association speaking in support.

November is lung cancer awareness month. The harbor craft sector is a leading source of cancer risk in portside communities and far inland. The proposed rule will cut cancer risk for over 20 million Californians and save hundreds of lives in these communities. Sportfishing boats, tugs, ferries and other commercial harbor craft contribute to a wide range of breathing related

emergencies, asthma attacks, emergency room visits, hospitalizations, heart attacks, strokes, lung cancer and premature death. We are talking today about extremely vulnerable residents who breathe this pollution day in and day out, whether or not they ever set foot on a boat.

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The American Lung Association, American Cancer society, California Medical Association, California Thoracic Society, and other leading health organizations call on CARB to move the proposed amendments forward and to strengthen the rule.

The proposed new and in-use requirements are critical. Moving to zero emissions and Tier 4 engines with filters will be far more protective than Tier 3 or earlier engines.

A few comments on strengthening. Compliance extensions could run well into the 2030s. These extensions delay health benefits and should be limited in scope. We support an annual technology review and believe the Board should expand zero-emission requirements for other vessels in line with Executive Order N-79-20.

In closing, the Board must direct staff to maintain the stringency of the proposal and strengthen the final rule. We believe incentives should be available in advance of the rule and that vulnerable breathers deserve a strong final rule.

Thank you.

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BOARD CLERK ESTABROOK: Thank you. Our next three speakers will be Michael Thompson, David McCloy, and Brian Vahey.

Michael, I've activated your microphone. You may unmute and begin.

MICHAEL THOMPSON: There we are. Oh, got to put my glasses on. Hang on.

Okay. My name is Mike Thompson and I represent the two sportfishing and whale watching companies in Newport Beach. We have a fleet of nine vessels, a majority of which have already been repowered to Tier 3 with the help of Carl Moyer funds. We provide affordable marine recreation and educational opportunities to the general public and local school districts. All of our vessels depart the harbor and operate mostly from three to 100 miles from shore, much like commercial fishing vessels.

The local coastline runs from northwest to southeast, and the prevailing winds in our area are from northwest to southeast. So for the most part, our emissions should not reach the mainland once we make the brief transit out of the harbor and offshore.

This shows the disingenuous nature of CARB's analogy concerning school buses. These vehicles operate

within the communities they serve. Ours do not. And I really don't understand how your modeling shows that our emissions go that far inland when we operate offshore.

I will go no further, other than to say that the proposed harbor craft rule will put us out of business.

We can't afford new vessels. We need to wait for the technology to catch up so we can retrofit existing vessels, some of which are relatively new.

Since I've got a few minutes left, we also charter one of our boats for three weeks every year to the National Marine Fisheries Service to collect indices of abundance on rockfish species used in stock assessments. And you guys really need to talk to the U.S. Coast Guard about the dangers of the DPF.

That's it. Thank you.

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BOARD CLERK ESTABROOK: Thank you.

David McCloy, you may unmute and begin.

DAVID MCCLOY: My name is David McCloy. I'm a ship pilot and managing partner at the San Francisco Bar Pilots. First of our all, our group supports emissions reductions and green efficient technologies. We're currently building the first pilot boat in the United States powered with Tier 4 and DPF-capable engines.

This is with the full support of our customers, ratepayers, and State Board of Pilot Commissioners. There

are only 10 pilot boats in California and my group operates five of them. Our primary position is that pilot boats be exempt from these proposed regs and continue to comply with existing U.S. EPA emissions regulations. Pilot boats have a minimum impact on the emissions inventory.

Regarding the proposed new regs, we believe that they are unnecessarily complex and restrictive. It's very difficult and even impossible on some pilot boats to retrofit with CARB-compliant engines. These regulations will prematurely end the service life of our current pilot boats and accelerate our new build program requiring construction of three new vessels by the year end of 2024, one in '25 and one in '28. These will cost between seven and 14 million dollars each. The implementation timetables are unrealistic and create an unreasonable near-term financial burden.

Thanks for your time.

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TRACY JENSEN: We're logged into Zoom

BOARD CLERK ESTABROOK: I'm sorry, David. I just want to interrupt you, because we've having some technical issues on our end and so we need to -- we'll allow you to continue with your comment, but we just need to fix the audio here. The Board members weren't able to hear your comments. So we'll have you start over when I give you

the queue. I'm so sorry about that.

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David can you hear me? I think we're back online.

DAVID MCCLOY: Okay. Yeah, I can hear you.

BOARD CLERK ESTABROOK: Okay. I do apologize for that. We are ready for you to begin your comment again.

DAVID MCCLOY: Okay. Thanks. My name is David McCloy. I'm a ship pilot and managing partner at the San Francisco Bar Pilots. Our group supports emissions reductions. We're currently building the first pilot boats in the U.S. with Tier 4 and DPF-capable engines. It's with the full support of our customers, ratepayers, and State Board of Pilot Commissioners.

There's only about 10 pilot boats in California and my group operates five of them. Our primary position is that pilot boats be exempt from these proposed regs and continue to comply with existing U.S. EPA regs. Pilot boats have a minimum impact on the emissions inventory.

These new regs are unnecessarily complex and restrictive. It's very difficult and even impossible in some pilot boats to retrofit with CARB compliant engines. These regs will prematurely end the life -- service life of our current boats and accelerate our new build program requiring construction of three new boats by year end of '24, one in '25, and one in '28. They will cost between

seven and 14 million dollars each. And the implementation timetable is unrealistic and creates an unreasonable near-term financial burden.

And thanks for the opportunity to comment.

BOARD CLERK ESTABROOK: Thank you.

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Our next speaker will be Brian Vahey.

After Brian, we will have Greg Bombard, Rebecca Baskins, Michael Parmer, and Rick Oefinger.

Brian, you may unmute yourself and begin.

BRIAN VAHEY: Thanks. Hell, can you hear me?

BOARD CLERK ESTABROOK: Yes.

BRIAN VAHEY: Hello. And thank you for the opportunity to testify today. My name is Brian Vahey and I'm with The American Waterways Operators, the national trade association for the tugboat, towboat, and barge industry.

AWO urges the Air Resources Board not to proceed with the harbor craft rulemaking in its current form. At a time when California ports are experiencing historic congestion, CARB is proposing to take regulatory action that could decimate maritime commerce. And this is particularly egregious, because the proposed rule is based on inaccurate assumptions about the size of the harbor craft fleet and its impact on the environment.

To take just one example, CARB's modeled

emissions from harbor craft are as much as four times higher than actual measured emissions from all sources captured at sampling stations in multiple major coastal areas. This data simply does not make sense. We've heard Board members discuss today the importance of data-driven regulation and we completely agree, but CARB's failure to validate this -- to validate its model has done a great deal to undermine confidence in this regulatory process. We urge the Board to halt this rulemaking and to replace it with a collaborative approach that will achieve more ambitious emission reduction goals on a workable timeline.

Thank you very much for the opportunity to testify.

BOARD CLERK ESTABROOK: Thank you.

Greg Bombard, you may unmute and begin.

GREG BOMBARD: Can yo hear me?

BOARD CLERK ESTABROOK: Yes, we can.

GREG BOMBARD: Thank you.

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Greg Bombard, CEO of Catalina Channel Express.

Catalina Express was established in 1981 as a privately owned ferry service regulated by the California Public Utilities Commission. Our fleet of eight high-speed vessels funs from three different Southern California ports to Catalina Island with a mandate to operate 30 -- 365 days a year.

Five of our eight vessels will have been upgraded to Tier 3 by the end of 2023. We were involved in a feasibility study conducted by a well respected marine architectural firm. The study was found to -- found that the retrofitted vessel passenger capacity would have to be reduced from 390 to 172 passengers, a 56 percent reduction, due to the added weight of the Tier 4 application. A new Tier 4 vessel would cost approximately \$20 million. As a private company, we cannot afford commercial financing for what would be exceeding \$120 million to upgrade the entire fleet.

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Board.

We are committed to achieving zero emissions from our vessels as soon as technology is feasible for our route. In recent conversations with CARB staff, we have -- we've been encouraged that Catalina Express will be able to work with CARB to achieve their ultimate goals of emissions reductions while creating a pathway to a zero-emissions future. Allowing us a longer compliance path and working with CARB staff will avoid negative consequences of disrupting transportation to and from Catalina. As a life-line service to Catalina -- BOARD CLERK ESTABROOK: Thank you. Thank you.

Rebecca Baskins, you may unmute and begin.

REBECCA BASKINS: Good afternoon, Chair and

Rebecca Baskins on behalf of the California

Advanced Biofuels Alliance. We are the state's trade association for renewal diesel and biodiesel. We would like to thank staff for the inclusion of renewable fuels in the harbor craft regulation, but we would like to see the inclusion of other renewable fuels like biodiesel and renewable diesel blends in the regulation.

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Blending renewable diesel and biodiesel together maximizes the environmental and economic profiles of the both fuels. For example, a blend of renewable diesel at 80 percent and biodiesel at 20 percent can reduce NOx by 10 percent and particulate matter by more than 40 percent when compared to petroleum diesel. Blends can also help alleviate cost and supply concerns. We did submit written comments that further explain our position and asked for a 15-day change to the amendments to include biodiesel and renewable diesel blends.

Thank you for your hard work on this and we look forward to continuing working with you.

BOARD CLERK ESTABROOK: Thank you.

Michael Parmer, you may unmute and begin.

MICHAEL PARMER: Good afternoon, Chair Randolph and members of the Board. My name is Michael Parmer and I'm the Assistant City Manager for the City of Avalon. The City of Avalon is in LA County located on Catalina Island, 26 miles off of Southern California. The city

relies on connections to the mainland for routine, advanced, specialty, and life-saving medical, dental, and vision care. Additionally, the city and island has a vibrant tourist and recreation-based economy. However, this economy is dependent on visitors access to the island. To access the island, the city and island rely on the island's only means of transportation, the cross-channel ferry services provided by the Catalina Channel Express.

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If as proposed, the amendments to the commercial harbor craft regulations are adopted by CARB, they will disproportionately impact our community's quality of life, threatening many of our residents' ability to access life-saving medical care from mainland hospitals and have dire consequences for our economic viability. The city urges CARB to embrace a solution that will allow for ferry services to continue to operate their existing fleet while expediting the development of a zero-emission ferry.

I appreciate the opportunity to speak and wish everyone the best.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Riff Oefinger. Rick Oefinger. And then after Rick, we will have Ken Franke, Ernie Prieto, Frank Ursitti, Markus Medak, and then Tim Ekstrom.

Rick, you can go ahead and unmute and being.

RICK OEFINGER: Hey, hi. Rick Oefinger, Marine

Del Rey Sportfishing.

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You know, our whole fleet is all for storing alternative fuels and propulsion systems. And the -- but you know realistic alternatives, they just -- they really just don't exist right now. I've been fortunate enough in the last 25 years to build from the keel up five brand new boats, and four of those five we looked into alternative fuel sources, just because it was the right thing to do I guess, just to check out what the options were, and none existed. The Coast Guard said no to everything.

I got a really good idea, but it's about when it comes to building new boats, if you have to start replacing them. And I think that just to build a simple local boat like a typical half day or three-quarter day boat, would actually be \$2 million plus. And I believe that an overnight boat with, you know, sleeping accommodation, whatnot, you're talking six million. Very few people have the funds or can even get funding to do that, or even think about paying something like that off. It's -- this whole thing is just financially irresponsible and unrealistic. And I think in the grand scheme of things, our boats just provide very little pollution to a -- that would -- that we would offset by what we're

saving by these -- having these restrictions put in our -- the regulations put on us.

BOARD CLERK ESTABROOK: Thank you.

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Ken Franke, you may unmute yourself and begin.

KEN FRANKE: Good afternoon, Chair Randolph. Ken Franke, President of the Sportfishing Association of California. We support feasible emissions reductions. Eighty-five percent of the Coast Guard inspected commercial passenger fishing vessel fleet, numbering less than 200, are all already either Tier 2 or 3 using grant money. Departing the LA/Long Beach area, 15 of 21 vessels are Tier 3, with the remaining six planning to repower to Tier 3. Departing the San Francisco Bay, 22 of 27 vessels are already Tier 3 with the remaining five also planning to repower. We have learned 80 inspected vessels are already Tier 3 and a large number of the balance are

But even without this rule, we believe that at least 70 to 75 percent of the fleet will Tier 3 within the next four years, if they have access to Carl Moyer funding. This analysis does not include uninspected six-passenger or less boats. They simply should not be included in this rule, as they, with few exceptions, already exempt from the rule and primarily part time. Their inclusion only serves to overinflate emissions

planning to go to Tier 3 shortly.

because of the inaccuracy of the staff model and data.

Additionally, the CARB-projected naval architect costs of \$61,000 for a feasibility submission is simply -- I'm sorry, ex -- a extension submission is simple not possible.

Finally the only logical path to compliance for this fleet is to put commercial passenger vessels back in the commercial fishing sector. Taking vessels out of service, ending service to low economic communities, simply not an option.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Ernie Prieto.

ERNIE PRIETO: Good afternoon. My name is Ernie Prieto. I'm from the Oceanside Sea Center in Oceanside Harbor, North San Diego County. I have spent 28 years in the Southern California sportfishing industry. Myself and my partner also serve on the Sportfishing Association Board.

Just four years ago, we established the Sea

Center, not only to provide sportfishing opportunity, but
also marine life education to the underserved and
underrepresented youth in North County, San Diego. We
operate a small fleet of five vessels, five of the 174
vessels identified by the Sportfishing Association and the

Golden Gate Fishing Association.

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Under these proposed regulations, all would need to be replaced. The pandemic has slowed the growth of our marine life program and we have continued to serve the community providing fishing, and marine education, and opportunities with our partners in Parks and Recs, our military neighbors to the north, Vamos a Pescar, Oceanside Unified, and Friends of Rollo just to name a few.

With us gone, many of these kids will never have had the opportunity to have and ocean experience. We are a small family owned and operated business. My teenage daughter works in the ticket office. If these regulations are adopted as written, our family business will be in jeopardy. Please recombine our vessels with commercial fishing vessel regulations, so that we may continue to work towards cleaner emissions as proven and tested technology is affordable and created.

BOARD CLERK ESTABROOK: Thank you.

Frank Ursitti.

FRANK URSITTI: Madam Chair, members of the Board, my name is Frank Ursitti, owner of H&M Landing in San Diego. I concur with other opposing speakers and add that the lack of transparency and stakeholder engagement has led to CARB staff grossly underestimating the cost of vessel replacement. Real-world cost studies by a

reputable ship builder, CPA, and industry economists concluded vessel construction costs are close to three times staff's estimate and will range from 4.6 to 5.7 million dollars.

Our economist forecasts fare increases will range between 97 and 201 percent, or up to \$395 per passenger fair. No business can sustain their current ridership with these increases. Gone forever will be affordable ocean access. When boats go out of business, tourism and visitor spending in coastal communities will language, especially here in San Diego, home to the biggest fleet in our state.

We respectfully request you direct staff to work with CPFV stakeholders towards a reasonable and equitable solution. We welcome the opportunity to work together with CARB to make meaningful changes in emissions and keeping our oceans accessible for all.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Markus Medak.

MARKUS MEDAK: Hello. Good afternoon. My name is Markus Medak. I'm the owner and operator of a 65-foot CPFV here in San Diego called the New Lo-An. CARB staff have conducted a faulty analysis of the costs and benefits of excluding CPFVs from the rest of the commercial fishing

fleet in the proposed rule. Staff concluded that CPFVs operate 83 percent of the time in regulated waters. My vessel is representative of the San Diego fleet and according to my log book data, we operate 16 percent of the time in regulated waters. By not using the actual areas of operation, any mathematical modeling to show health benefits or air quality improvements in California will be incorrect.

CARB staff contend that CPFV demand is inelastic in regards to price. The idea that we can drastically raise prices would with loss of ticket sales is not reality. New Lo-An was designed and built for the Southern California live bait CPFV fishery. This vessel cannot be adapted for use in other fisheries or businesses out of state.

And so if it's not allowed to operate in California, it would lose almost all of its value and be virtually unsailable. The Pacific Ocean is one of the most amazing natural resources that California has. For most Californians, the only way to enjoy this amazing resource is the go out on a CPFV or excursion vessel. This and other intangible benefits are impossible to model mathematically, but should be carefully considered by the Board.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Tim Ekstrom will be our next speaker. After Tim, we will have Joy Williams, Michael Franchak, and Wayne Locke.

Tim, go ahead.

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TIM EKSTROM: Good evening. I'm Captain and owner of the fishing vessel Royal Star, with 37 years experience working in Southern California recreational and commercial fisheries.

In the new rulemaking CPFVs are separate from commercial fishing vessels and burdened with astronomically costly, unattainable machinery retrofits. The notion of passing along realistically calculated 200 to 300 percent cost increases to the fishing public is absurd. Such cost increases crush affordability for the vast majority of CPFV clientele.

opportunities for low-income and economically disadvantaged families, the new rule as proposed will accomplish that goal. My colleagues and I fully support machinery upgrades and emission reductions, but the proposals from CARB are an extreme safety concern. The design and operating parameters for every CPFV are absolutely incompatible with proposed machinery requirements.

The addition of DPFs is a terrifying prospect that will lead to many passenger-carrying vessels being disabled offshore. Such risk is a liability that no prudent mariner can accept. In light of numerous flaws in CARB's proposed new rules affecting the CPFV fleet, there is a simple solution, place CPFVs back in the same category as commercial fishing vessels. The timeline afforded commercial vessels provides reasonable compliance goals that CPFVs can meet. Thank you.

BOARD CLERK ESTABROOK: Thank you.

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Joy Williams, you may unmute and begin.

JOY WILLIAMS: Good afternoon. I'm Joy Williams representing Environmental Health Coalition.

EHC supports the Commercial Harbor Craft Rule. We thank staff for their hard work on the rule and for bringing it forward today. Harbor craft is a significant source of health risk for San Diego's Portside communities. CARB modeling done for our Community Emission Reduction Plan determined that 84 percent of the weighted cancer risk from toxic air contaminants in Portside is from diesel PM. And of that 84 percent, 78 percent is from harbor craft. Harbor craft generates large volumes of greenhouse gases also. A 2016 Port of San Diego emissions inventory found that harbor craft is the single largest source of greenhouse gases from port

sources, larger even than ocean-going vessels within San Diego Bay.

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In closing, we urge the Board to adopt the rule and to strengthen it in two ways. One, require all ferries, tugboats, dredges, and barges to be zero emission by 2035 and increase funding for zero-emissions boat pilots and demonstrations, retrofits, and new builds.

And in closing, thank you for your time BOARD CLERK ESTABROOK: Thank you.

Michael Franchak, you may unmute and begin.

MICHAEL FRANCHAK: Good afternoon to all involved within this meeting. My name is Michael Franchak, owner/operator of Relentless Charters, a commercial passenger fishing vessel operating here in San Diego.

For anyone who doesn't know or might not have knowledge, as Coast Guard inspected passenger carrying vessel every modification we do to the vessel is in cooperation with the United States Coast Guard Sector San Diego and in accordance with Code of Federal Regulations 46 subchapter (t). This could be something as simple as repositioning a life raft, replacing wiring or carpeting to code, and certainly anything pertaining to the main propulsion, navigation, and stability of the vessel.

Therefore, we keep hearing about how Tier 4 technology is currently viable to the industry and

available. We request that a list of Tier 4 power plant systems for the marine environment that are currently approved for installation on a subchapter (t) vessel by any Coast Guard inspections office nationwide, Sector San Diego or otherwise, be published. Without that, it seems as though the position of the Board and statements made publicly by staff, including Ms. Bonnie Soriano even this week, appear to be at best admonishingly ignorant and at worst maliciously deceitful.

We definitely look to cooperation with State and federal agencies towards zero emissions. And we also commend the California Fish and Wildlife Commission position, as far as putting us back with commercial fishing vessels on a path towards compliance.

Thank you for your time.

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BOARD CLERK ESTABROOK: Thank you.

Next, will be Jeff Kieffer. And then after Jeff will be a phone number ending in 977.

And, Jeff, you may unmute and begin.

JEFF KIEFFER: Hi. My name is Jeff Kieffer. I am a fisherman. I've been on these sportfishing boats for -- since I've been five years old. I'm 50 years old now. From Fort Bragg down to San Diego, I've been on several of the boats that several of the previous speakers have represented. I strongly oppose these regulations. I

look forward to fishing. I don't own a boat. I'm not rich. I go on these boats, because it's an opportunity for me to go fish.

The regulations as proposed are going to put these guys out of business. It's also very clear that the studies that were the justification are flawed. And the staff that put this together have never been on a sportfishing boat. These guys don't run at full throttle. They're trolling, they're idling, they're anchoring. Please put them back into the commercial fishing vessels and let me go fish.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Phone number ending in 977, please state your name for the record and then you may begin.

And you'll need to dial star six to unmute.

TOM BABINEAU: Yes. Good evening. Thank you for the opportunity to speak. My name is Tom Babineau with Rypos, an active DPF manufacturer and a supporter of these proposed amendments.

I'd like to take the time to address two dominant areas of concern expressed here today. Those are the question of whether effective technologies are available to meet the regulatory compliance dates and the safety of DPFs in general. Relative to meeting compliance dates,

Rypos is deep down the verification path with proven technology that already has successfully received more than five CARB verifications for other regulations. This DPF technology has already filled in over 10 -- excuse me, 10,000 installations worldwide and is ready for harbor craft.

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Rypos is in the process of installing active DPFs on main propulsion engines and on harbor craft auxiliary engines at an extreme faction of the cost of expressed here today.

As it relates to safety, one vessel is under -that is under retrofit today is a Coast Guard documented
vessel, which means that the naval architect has submitted
all design modifications to the U.S. Coast Guard for
approval. These installations are moving forward and be
completed by the end of this year.

I'd like to also point out --

BOARD CLERK ESTABROOK: Twenty seconds remaining.

TOM BABINEAU: -- our first application in the marine environment was 16 years ago, where we completed 18,000 hours of combined engine operation under DPF. So in short, DPF technology is proven, ready, and operated on Navy vessels for more than nine years. Will be -- it will be verified by the required compliance dates. So thank you for the opportunity to speak.

BOARD CLERK ESTABROOK: Thank you.

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Would you please state your name again for the record

TOM BABINEAU: Yeah. Thomas Babineau. Rypos is the company.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be James Robertson, and then Jim Holden, and then Sadie Johnson.

James, you an unmute yourself and begin.

Sorry about that. James, are you able to unmute?

JAMES ROBERTSON: Am I unmuted now?

BOARD CLERK ESTABROOK: Yes, you are.

JAMES ROBERTSON: Okay. Perfect.

My name is James Robertson and I own the charter boat Outer Limits out of Sausalito, California that I built in 1997. Four years ago, I put in Tier 3 engines. I've been in the business since 1976. In all those years, I've purchased commercial stamps for my vessels. I don't understand why the CARB people are taking us out of that qualification, so we no longer apply for -- can comply for Carl Moyer.

If you push the agenda of the Tier 4 engines forward, I know that I will be put out of business, because I can't afford a new boat. And even if I could, I couldn't push that kind of cost onto my customers. What

to me is really crazy is once I'm put out of business, my boat will go to another state and be used and won't do one thing for global environment. The only thing it will do, it will hurt our California economy, because I won't be in business. I want to do the right thing when it comes to emissions. So please step back and work with us to come up with a common goal.

Thank you so much --

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BOARD CLERK ESTABROOK: Thank you.

Jim Holden. Jim, please unmute yourself and then you could begin your comments.

JIM HOLDEN: Good afternoon. This is Jim Holden. I'm the founder of the non-profit Fish For Life that takes special needs children fishing from the Dan Wharf and Dana Point. We've also had trips in Long Beach and San Diego.

Other than a short trip to the fishing grounds just a few miles away, we're under anchor most of the day. There's a hundred passengers aboard each voyage. To help educate the kids about marine life and ocean conservation, we invite marine biologists from -- aboard from Fish and Wildlife and NOAA. Besides a fun-filled day of helping these kids catching their first fish ever, we offer much entertainment, red carpet introductions, surprise them with a mermaid, et cetera. The therapeutic benefits and impact of these trips is tremendous for the kids, parents,

and volunteers. Exponentially higher costs to charter large fishing boats would severely affect the ability to meet the overwhelming demand for these trips. If we're unable to charter boats, Fish For Life will not exist in California.

We all want clean air. You know, please help our sportfishing community with a better solution and funding so Fish For Life can continue to serve families with a special needs child. They greatly benefit from this activity.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Sadie Johnson well be our next speaker.

After Said will be Scott Hedderich, Charlie Helms, and then Brian M.

Sadie, you can unmute and begin.

SADIE JOHNSON: Good afternoon. I'm a resident of Long Beach and I live about a mile and a half from the Port of Long Beach. I'm also a recreational boater, so I spend a lot of time in marinas and on the waters of Southern California.

Proposed Harbor Craft Rule, will better than the existing rule, fails to meet the moment we're in. In this decade of climate change emergency, we cannot afford to let 90 percent of the boats continue to use polluting

diesel engines for the next two decades. And since we are California, we have a unique opportunity to effect change. When we set emissions standards for vehicles, auto manufacturers adjust to meet them. If we set lofty goals for marine emissions, it's likely that shipping and maritime industry will also rise to meet the occasion. That's how important California is. That's how much weight our voice carries. And that's why I urge CARB members to push for a stronger rule by requiring a 100 percent zero-emission transition for the majority of harbor boats by 2035, including tugboats, ferries, barges, and dredges.

I'm going to leave you the quote, variations of which date back to the Bible, but I think we all remember it best coming from Peter Parker, "With great power, comes great responsibility".

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Scott Hedderich, you man unmute and begin.

SCOTT HEDDERICH: Hi. Hello. Hopefully, everyone can hear me. I don't see the -- there we go.

I'm Scott Hedderich with Renewable Energy Group. We've submitted detailed written comments with references and significant data citations. It's one of the nation's largest suppliers of biofuel we've supplied to California

over the last 10 years. Over 750 million gallons of biodiesel and renewable diesel. That's over five and a half million metric tons of carbon reductions. And I'd like to let that number sink in.

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This is an important rule and we support CARB's efforts with two critical exceptions. First, the Board should amend the requirement to use R99 alone and allow the use of blends of up to R80 be done.

R99 alone falls short. 80/20 blends provide greater reduction in particulate matter than simply using R99. You heard today that many operators have Tier 3 engines. Tier 3 has strict NOx control, but no DPF. An R99 requirement alone will emit more PM. And as the ISOR for this rule makes clear lowering PM emissions saves lives.

Ironically, CARB has already approved 80/20 blends for on-road use under the alternative diesel fuel regulation and under that process affirmed its NOx neutrality. And it's frustrating to point out that under the proposed alternative compliance process, these blends already meet the emissions criteria reduction thresholds laid out in Tables 11 and 12. CARB already has the data and has already reviewed it. It should be included in the rule.

Second, CARB should amend Appendix E and the

section for biodiesel as it contains erroneous and duplicitous information on biodiesel.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Charlie Helms, you can unmute and begin.

CHARLIE HELMS: Yes. Good afternoon, Chairman Randolph, Board members, and staff. Appreciate you giving me this opportunity to make comments. I'm a Board member of the California Association of Harbor Masters and Port Captains. And one thing I heard this afternoon that really touched a chord with me was your Board Member Diane Takvorian saying that -- referring to trucking, that everything that was imposed was really tough for single owners and independent operators. And that's what -that's what most of our people are. They are single owners and independent operators. And all I ask -- we're all looking to get to zero emissions. We all want to avoid ocean warming. That's our livelihood, but what I would ask is if you at least have less onerous qualifications and processes for extensions. A lot of these boats are 50 years old, fiberglass and wood. are no easy alternatives for the folks operating them to reach these goals.

But we appreciate what you're doing. We want to get to the same goals you do. Jus want your help in

getting us there. So thank you very much.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Brian M. After Brian will be William Smith, David Brown and then Jim Luttjohann.

Brian, you may unmute yourself and begin.

BRIAN MAGALINE: Can you hear me?

BOARD CLERK ESTABROOK: Yes.

BRIAN MAGALINE: Okay. All right. Good evening. My name is Brian Magaline. I own a charter fishing boat, Lucky Six, out of the San Francisco Bay Area. I just want to touch on -- I'm not going to repeat what everybody else is saying, but I want to touch on the trickle down effect of this. If we have to go to Tier 4 engines, I can strongly say I will be put out business.

But the other part of it, fishing wildlife will lose millions of dollars in license sales every year with this. And that money guess right back into our natural resources as well. And if we lose that, it's -- people aren't going to buy fishing licenses. People aren't going -- we're not going to be buying our commercial passenger licenses. It's just -- this who deal is going to put every fishing boat on the coast that is a single family owned out of business. It is just unfair. It's -- we need to make sure these engines are Coast Guard

approved before we even consider putting them into our boats. And that's pretty much all I've got for you.

BOARD CLERK ESTABROOK: Thank you.

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William Smith, you may unmute and begin.

WILLIAMS SMITH: Ahoy there, Chairman and Board members. My name is Captain William Smith. I am the CPV owner of the Riptide. I have worked on the ocean since 1971 on a full-time basis.

This proposed rule is not for -- this proposed rule is not feasible for our fleet here in the Bay Area. There's no Tier 4 engine that will fit into any of the existing boats that we have here. There is no Coast Guard involvement that I've seen with this. The Coast Guard is required in vetting anything that is done to our vessels. This is a stunning oversight by our reports and by this -- by this whole process. There is no room to add and would affect the stability of our boats with -- to add diesel particulate filters to existing boats that are Tier 3.

Your quote as to how an engine is operating is wrong. Vessels do not operate at 100 percent power 100 percent of the time. Full-power operation is maybe 10 to 20 percent of the time, which is not what your comparison represents. This would have a dramatic negative effect on our whole fleet in Half Moon Bay. The commercial

passenger vessels should be grandfathered in for existing vessels that are on a Tier 3 level.

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And we fully support the upgrade to Tier 3s for CPVs. This will permit me -- this will put me out of business.

I truly want to thank you very much.

BOARD CLERK ESTABROOK: Thank you.

David Brown, you can unmute yourself after begin.

DAVID BROWN: Good evening. My name is David Brown. On behalf of Balboa Island Ferry, a family-run fixture in the Newport Beach community, I offer the following public comments, in addition to the written comments submitted to CARB on November 12th.

Please do not move forward with the proposed amendments to the Commercial Harbor Craft Regulation, or at least remove from the proposed amendments the prev -- the provisions adding crippling burdens to short-run ferries. The proposed amendments and materials relied upon to support them fail to address a number of key issues with the costs, impact, and a lack of meaningful benefits of requiring all short-run ferries to be zero emissions by December 31st, 2025.

For over a hundred years, Balboa Island Ferry has provided service for vehicles, cyclists, and pedestrians at Newport Beach, California. In providing this service,

Balboa Island Ferry operates three small short-run ferries that each use about a half gallon of fuel per hour. On the busiest day, running all three ferries, this fuel consumption is about the same as a single drive from San Diego to San Francisco. And without this option, most of people would have to drive approximately six miles, from one point to another, potentially using more fuel than the ferries consume.

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The materials provided by CARB simply do not address the fact that any decrease in emissions associated with electrification would be negligible for short-run ferry vessels, like the ones Balboa Island Ferry operates.

So while Balboa Island Ferry supports CARB's effort to improve State air quality, it does not agree that imposing burdensome requirements on small business that generates negligible emissions is the proper way to do so.

Perhaps most strikingly, the costs in the proposed amendments are prohibitive and we believe understated. Adding to this burden is a short implementation timeline which renders Balboa Island Ferry effectively ineligible for grant funding. CARB's analysis in support of the proposed amendments is flawed, and family-owned businesses that have served local communities for decades should not be forced to close because of it.

Thank you for opportunity.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker is Jim Luttjohann.

Jim, you can unmute yourself and begin.

JIM LUTTJOHANN: Good evening. Thank you for the opportunity to speak to you tonight. I am the President of CEO at the Catalina Island Tourism Authority, also know as Love Catalina. As many of my counterparts have already said this evening, the impacts of the proposed regulations would be catastrophic for Catalina Island's tourism-based economy, it's 4,000 residents, and over 60,000 youth campers who enjoy visiting the island each year.

The -- I'm expressing concerns, beyond what they've said with regard to the unattainable recovery of costs, associated with either modification, should that be feasible, or replacement, when the boat costs are estimated at upwards of \$20 million each, and we are dependent on a fleet of at least eight boats to support the current economy on the island.

The -- sorry, I lost my note. To put upon
Catalina businesses this excessive financial burden would
put every business, every resident, and every visitor to
the island at risk of having to cease enjoying Catalina as
a place to live, to work or to recreate. I encourage you
to look at alternative means of reaching these goals,

which we do support.

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And I thank you for the time to have spoken to you today.

BOARD CLERK ESTABROOK: Thank you.

Our next three speakers will be Raymond Boetger, Beau Biller, and Theral Golden.

Raymond, you can unmute yourself and begin.

RAYMOND BOETGER: Hello. My name is Raymond Boetger. I'm a -- I have no affiliation to anyone. My thoughts and opinions are my own.

I kind of waited a little bit to listen to everybody else's comments, because I have a master's in science, so I definitely pay attention to the environmental impacts, but I'm also a sportfisherman recreationally. I caught my first yellowtail on the Malihini. I've been through Dana Point. I charter boats for my nieces and nephews who are all young. And I can -just after listening to everything as a person who conducts research on a regular basis, I went back through and looked at the CARB report. I'm very disappointed that they did not take into consideration so many different elements. It doesn't sound like they really did their due diligence, especially after hearing - I think his name was - Rescino's comments on the -- what the CARB report listed as the exhaust, 162 buses is equal to one

sportfishing boat.

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I don't know. It doesn't sound like anyone has done their exact due diligence. It doesn't sound -- it also sounds like many of the sportfishing boats are saying that they agree that they want to follow the Air guidelines and that they want to do what is asked. They just need more time, more money. The people that are against it so far have sounded like they're the -- you know, it -- it just doesn't sound like everybody is being heard. And it definitely sounds like there are more people that are against it then that are for it. I've been keeping tally over here and it sounds like more people are against it. It seems irresponsible to pass a measure that --

BOARD CLERK ESTABROOK: Thank you.

RAYMOND BOETGER: Thank you.

BOARD CLERK ESTABROOK: Our next speaker will be Beau Biller. I have activated your microphone. You can unmute and begin.

BEAU BILLER: Hi. Madam Chair and members, Beau Biller with Platinum Advisors on behalf of the Marine Recreation Association, the California Yacht Brokers Association, and as already mentioned President Andrea Lueker from the California Association of Harbor Masters and Port Captains.

I wanted to share with you the letter and the position from October 28th, but they've already spoken for themselves, so I would merely draw our letter of extreme concern to the matters of public safety first and foremost. But you've heard numerous examples and illustrations of public safety and safety on the high seas is of utmost importance.

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And with that, I will close. Thank you. BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Theral Golden. After Theral will be a phone number ending in 602.

Theral, you may unmute and begin.

THERAL GOLDEN: Thank you for the opportunity.

My name is Theral Golden. I'm a West Long Beach resident and the current treasurer of the West Long Beach Association.

The current proposal on Commercial Harbor Craft Rule is critical to provide serious health benefits and save hundreds of lives. The current proposal must be -- must not be weakened in any way, given the enormous public health benefits. But in certain categories, there are opportunities to send a strong signal to move to zero emissions -- beyond the zero-emission commitments in the proposal. This is particularly critical in the South Coast Air Basin and San Diego County, where we have a

toxic port pollution crisis, a regional air crisis that have led to a health crisis.

The health crisis is brought about during the first portion of COVID-19, where the Los Angeles County and the communities in Los Angeles County, the communities in and around the ports of Long Beach and California experienced a 60 percent higher increase in fatalities.

The San Pedro Bay ports are busting with -- BOARD CLERK ESTABROOK: Thank you.

THERAL GOLDEN: Thank you.

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BOARD CLERK ESTABROOK: Our next speaker will be a phone number ending in 602. Please state your name for the record and then you may begin. And I believe you will need to press star six in order to unmute on the phone.

MERLIN KOLB: Good evening, Board and Chairperson. Thank you very much for this opportunity to speak. My name is Merlin Kolb. I'm the owner and operator Reel Magic Sportfishing in beautiful Bodega Bay.

I'd call in and been waiting on the phone for, I don't know, five or six hours, just to tell you guys how important it is for you to vote no on this.

The impact of 175 commercial passenger fishing vessels is minimal, it's nothing, in comparison to the cargo vessels and all the large vessels that pollute California air.

What you're really doing is you're blocking, you're closing access to the sea for the non-boat owning public in California. Do you know that the California Constitution guarantees access to the sea for California sportsmen. You're going to put me out of business. My boat will never put -- have a Tier 4 engine in it. It's a fiberglass vessel and it will burn with a Tier 4 engine in it.

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Did you -- did you realize that you're giving me an option to have a steel vessel. Check the carbon footprint out on that. There's going to be more carbon footprint to make a steel vessel, a new vessel that's going to cost over a million dollars for me to stay in business. And that is -- and I'm not going to --

BOARD CLERK ESTABROOK: 15 second.

MERLIN KOLB: Tier 4 is not going to accommodate that. There's going to be going more fuel lost.

BOARD CLERK ESTABROOK: Thank you.

Our next few speakers will be Donald Brockman, Fern U., Cinde Cassidy and then Bill Magavern.

And so Donald, I have activated your microphone. You can unmute and begin.

DONALD BROCKMAN: Hi. This is Don Brockman. I represent Davey's Locker Sportfishing and Whale Watching in Orange County. We've operated there for over 65 years.

Now, with these new proposed regulations, we'll probably be put out of business. We take over a hundred thousand kids a year from Riverside County, Los Angeles County, and Orange County for \$8 a ticket to go whale watching, to see the ocean, to feel it, and all that kind of stuff. That will -- that will cease. We won't be able to afford to do those type of trips.

CARB's current proposal has not involved the United States Coast Guard. We had a passenger vessel that burned up last year and killed over 34 passengers. The Coast Guard is on high alert. These new high def Tier 4 engines are at 2500 degrees. They will catch on fire, as our vessels are over 50 years old, most of them wood and fiberglass in the fleet.

I propose that CARB put this project on hold for the sportfishing fleet and back them back into the commercial direction that they are already, according to the California Fish and Game. We are a commercial passenger vessel.

Thank you for your time. I know this has been a long day. And, yes, all of our boats operate 80 percent of the time outside of three miles.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Fern U.

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FERN UENNATORNWARANGGOON: Hi. Can you hear me?
BOARD CLERK ESTABROOK: Yes, we can.

FERN UENNATORNWARANGGOON: Thank you. Good afternoon, Board Chair, and members and staff. Thank you for sticking with such a long day. I'm staff at the Environmental Defense Fund and I'm also speaking today as a steering committee member of the West Oakland Community Action Plan in support of this rule.

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As many of you know, the West Oakland Community Action Plan is being implemented as part of CARB's Community Air Protection Program. And in developing the Community Action Plan, the Bay Area Air District conducted a technical assessment that showed that harbor craft is the third largest source of diesel PM and toxic air contaminants affecting West Oakland residents, outstripping emissions from trucks.

The community plan includes a strategy that pertains specifically to this rule and the emission reductions afforded by this rule will be crucial for reducing air pollution exposure as set out in this plan, so I urge CARB Board members to approve this rule.

In addition, the -- while there will be significant public health benefits of the rule, it misses the opportunity to embrace zero-emission solutions for the commercial harbor craft sector. So I also urge CARB to

direct staff to continue to assess available technologies, ideally on an annual basis.

Thanks so much for your time.

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BOARD CLERK ESTABROOK: Thank you.

Cinde Cassidy, you may unmute and begin.

CINDE MACGUGAN-CASSIDY: Thank you, Board, for the opportunity to speak on this matter. Cinde MacGugan-Cassidy, Mayor Pro Tem for the City of Avalon on Catalina Island as well as President of the Gateway Cities Council of Governments. I'm a multiple business owner in our community, which 100 percent relies on the tourism of the island for our sustainability in business.

The current proposed regulations will harm California's families. Catalina is a vacation destination for families that cannot afford expensive flights. Our visitors are mostly middle income Californians with a growing percentage of Latino families. Catalina is an ideal vacation spot for more than one million visitors a year that near exclusively use ferries to travel to and from the island.

If commercial ferries are required to replace existing engines, it will either result in a massive reduction service or a substantial price increase for residents and families, neither of which result would be beneficial to Catalina or California. There is no

affordable alternative to the ferry service. Without some relief from the regulations, Catalina and the businesses that serve the island will be irreparably harmed. An increase in ferry fees or decrease in available travel spots will undoubtedly severely affect the ability for Catalina to remain sustainable as a tourist-based economy.

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There are no other methods of revenue for our island outside of tourism. I urge you to embrace a solution that will allow our ferry operators to continue to operate their existing fleet while expediting the development of zero-emission ferry.

Thank you. That completes my comments.

BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Bill Magavern. After bill, we will have a phone number ending in 079, and then Gambit Ruiloba, and then Bob Ingles.

Bill, you may unmute and begin.

BILL MAGAVERN: Thank you. Bill Magavern with the Coalition for Clean Air.

We ask the Board to adopt this measure early next year without any weakening amendments. We were involved in the process of formulating the regulation. And I can tell you it was a lengthy process with many opportunities for public participation. Most importantly, this rule is estimated to save over 500 lives and also avoid hundreds

of hospitalizations. The reductions in NOx and particulate matter are desperately needed and are counted on in the State Implementation Plan. Among the provisions that are most important here are requiring the cleanest engines available to replace dirty old diesel engines, use of renewable diesel to lower emissions, and the added protection for the disadvantaged communities, which are bearing the worst burden of air pollution.

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We do, however, note that we want the fleets to get to zero emissions as soon as possible. Governor Newsom's Executive Order does say that there's a goal of all off-road engines getting to zero emission by 2035, where feasible. I know that there's definitely a difference of opinion when it comes to what is feasible. But I think you've heard from a lot of people today that that is the goal.

Thank you for listening to my testimony.

BOARD CLERK ESTABROOK: Thank you.

Phone number ending in 079, please state your name for the record before you begin and then you can press star six to unmute and begin.

TIM GILLESPIE: Yeah. My name is Tim Gillespie.

I own a charter boat business four hours north of San

Francisco. Before you guys adopt these amendments -- or new regulations, I would like you to consider at least

contacting the Coast Guard of Inspected Vessels. Also, our area up here has been -- hasn't had a Carl Moyer Program, yet there is a Carl Moyer Program here, but it has not done marine engines for, oh, probably four years.

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So my recent repower has been out of my own pocket already. And the Tier 4 motors are, like many people said, have -- will affect -- it will not comply with fiberglass, wooden vessels. You're going to have to restructure. Right now to by a new boat -- fiberglass boat is 1.6 million. So a steel boat is not going to make it. Also, I spend more money as a commercial vessel in permits and licensing --

BOARD CLERK ESTABROOK: Nine seconds remaining.

TIM GILLESPIE: -- than I do for my commercial

passenger vessels. Please before you guys pass this, can
you sleep knowing that you're putting so many commercial
passenger fishing vessel on death row?

Think of that. Don't think of --

BOARD CLERK ESTABROOK: Thank you.

TIM GILLESPIE: -- just one --

BOARD CLERK ESTABROOK: Our next speaker will be Gambit Ruiloba. I apologize if I miss pronounced your name. You may unmute and begin.

GAMBIT RUILOBA: Yeah. My name is Gambit Ruiloba. And I work on a charter boat In Morro Bay,

California. You guys have already covered the bases pretty well as far as what the costs would be to the industry. And with the Coast Guard not having certified any vessels with Tier 4 motors, what that would look like to the industry and pretty much is looking at putting everybody out of business. We really are the gateway for middle class families to be able to experience the Pacific Ocean and we would like to keep it that way.

The whole industry is trying to move towards compliance. But the regulations and places they are, you might as well ask us to be powered by reindeer, because the technology is just being outpaced by the mandate. So our request is that you just commission as commercial vessels until the technology starts to catch up with what we're all working towards. So thank you guys.

BOARD CLERK ESTABROOK: Thank you.

Bob Ingles, you may unmute and begin.

Bob, are you there?

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I will come back to you. Our next speakers are Christopher Chavez, Joseph Murphy, and Mark Pisano.

Christopher, I have activated your microphone. You may unmute and begin.

CHRISTOPHER CHAVEZ: Yes. This is -- good evening, Board members. This is Chris Chavez, Deputy Policy Director at Coalition for Clean Air to echo the

comments that my colleague Bill Magavern mentioned. I also want to add a local element to your consideration.

Commercial harbor craft are -- if you look at the South

Coast AQMD's community emission reduction plan under AB

617, it does identify commercial harbor craft as a concern, both in terms of the amount of emissions that are produced, as well as the strategies to reduce those emissions.

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Diesel particulate matter is the number one air toxic contaminant in California and it's concentrated in communities like Long Beach, where I live, that are close to the harbor, close the port, and other sources of emissions as well. We also know that the South Coast Air Basin continues to be in nonattainment of the national and State air quality standards for ozone, which is smog. We have tremendous air quality problems that we're facing and we need to get every ounce of emission reductions we can get, because this goes beyond just broad picture climate issues. This comes down to people's health and their lives in tease communities.

Somebody in Western Long Beach is expected to have a shorter lifespan of about six to eight years than somebody on the eastern side. So I really urge you to keep this reg -- this rule, these protections on track and look forward and hopefully we'll see it come to fruition

early next year.

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Thank you.

BOARD CLERK ESTABROOK: Thank you.

Joseph Murphy.

ALICIA MURPHY: Hi. Can you hear me?

BOARD CLERK ESTABROOK: Yes.

ALICIA MURPHY: Wonderful. Well, my name is
Alicia Murphy. I apologize. It logged me in under my
husband's name who's Joseph. I live in Long Beach and I
was so happy to hear a few other folks who live in Long
Beach comment.

We live in an area -- it's a 50 in a million risk for getting cancer. And I've lived here for over 30 years. And it's alarming to me really to hear the science and the facts behind what's happening. I work every day. My neighbors every day are working class people. In my experience, they don't have an extra 150 to 300 some dollars a day to go on a boat to experience the ocean. They go for walks on the beach because it's free. They go for picnics in the park, because it's close to their house.

I would really urge CARB to pass these regulations. I am so grateful to all the staff and everyone whose taken so much time and effort to make these regulations more of a reality, because this is the life

and the reality that I live every day, and that may family lives every day, and working class people will live every day. I've seen way too many of my neighbors and my friends have their children be born with higher rates of asthma, have early cases of cancer. And all of these people that I know live within a very close radius of the port in Los Angeles. So it's really sad and alarming to me to hear that the sky is falling, because people will go of business. It's our health and our well-being that's on the line.

Thank you so much.

BOARD CLERK ESTABROOK: Thank you.

Mark Pisano.

MARK PISANO: Yeah. Good evening. Can you hear

15 me?

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BOARD CLERK ESTABROOK: Yes.

MARK PISANO: Hi. My name is Mark Pisano. I'm vessel owner and operator out of Long Beach and San Pedro harbors. We currently did a survey on the sportfishing vessels operating out of the harbor. And 15 of the 21 currently have Tier 3 engines in them. The other six are in the program to install, two I know of this year.

We primarily cater to people who cannot afford their own boat. We take over a hundred thousand people fishing a year out of 22nd Street Landing. And it's a

trip that people can afford.

That concludes your time.

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I'm on the ocean 150 to 200 days a year and I'd like to talk about something that hasn't been talked about, because many of my points were even covered.

Right now, we have 98 container ships, 98 drifting off our shores right now and in the harbor. I have multiple pictures and videos of the high sulfur dirty diesel fuels that they run their engines on. I've been submitting them to the Sportfishing Association, which I'm a member of. And what we're looking at here is a way, way, way bigger problem. We're talking about health concerns.

I will take any Board member, I invite you, I will take you out on my boat and I will show you what's going on right now off our coast. It's a problem that CARB has created with -- partly because of the trucking regulations they put in. The trucking industry was hammered by their -- the regulations they had. They take their containers out to the border and they use one of their old trucks in Arizona and Nevada. And they have -- BOARD CLERK ESTABROOK: Thank you. Thank you.

Let's try Bob Ingles again. Bob, are you able to unmute and begin your comment?

I'm not seeing that it's being unmuted on my end.

If you can try calling in to the phone number that's listed or if you can -- I will lower hand and I will ask you to raise it again if you still wish to speak on this item and then I can try again.

Our next few speakers will be a phone number ending in 404, Graham Balch, and then Mark Kalez.

Phone number ending in 404, please state your name for the record and then you may begin.

And you'll need to dial star six to unmute Are you there?

I see that you've unmuted --

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ROBERT HUGHES: Am I unmuted?

BOARD CLERK ESTABROOK: Yes, you are. We can hear you now.

am a private citizen and a sports fisherman. One thing that I wanted to point out that maybe has gone a bit unnoticed is that the Air Resources Board actually commissioned a study by the California State University Maritime Academy. And it's dated September 30th, 2019. And that study indicates that sportsfishing boats have no applicable Tier 4 technology that can be applied. I know there's been some different opinions expressed by members of the marine engine industry, but this is your own study that states that very emphatically.

So a lot of what I had to say has already been said, but really what the result is for sport fishing is that you are destroying the livelihood of family-owned businesses. There really are only a few hundred sportfishing boats in the state.

BOARD CLERK ESTABROOK: Twenty seconds remaining.

ROBERT HUGHES: And it's been pointed out that
the comparison to school buses, but there are thousands of
school buses, thousands of airliners, cargo ships, et
cetera. Sportsfishing boats are just an incidental amount
of contribution to air pollution and I urge that you treat
them differently and allow an exemption for sportfishing

Thank you.

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boats.

BOARD CLERK ESTABROOK: Thank you.

Graham Balch, you may unmute and begin.

GRAHAM BALCH: Hi. This is Graham Balch of Green Yachts. Green Yachts helps vessel operators go zero emission. And we support the regulations, because they are the first regulations in the U.S. requiring marine zero-emission technology and our planet needs this.

Zero-emission technology is available today. And the U.S. is behind Europe despite our car and truck zero emission leadership. We are working with vessel operators in California to go zero emission, including the Angel

Island Ferry, which submitted their Moyer application to go zero emission on Wednesday.

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However, we also understand and empathize with those who oppose this regulation and are concerned about their livelihood. This is why I spoke on Agenda Item number 4 about a dedicated marine fund, because funding for zero-emission marine technology projects and equity for those of lower economic means are needed.

It's very simple, make it more economical for marine operators to go zero emission than to do a diesel repower. We don't understand the focus for 99.5 percent of marine vessels by CARB regulations on heavy, unsafe, and hot emission controls on diesel engines that do nothing to reduce greenhouse gas emissions. We ask CARB to make zero emission a better option than a diesel repower, by revising Moyer funding guidelines so that it's easier for marine operators to go zero-emission.

 $\hbox{ It will cost California less in the long run.} \\$ And if --

BOARD CLERK ESTABROOK: Thank you.

GRAHAM BALCH: Okay.

BOARD CLERK ESTABROOK: Our next speaker will be Mark Kalez. After Mark will be a -- Mark Ortega, and then Corchelle Worsham.

Mark Kalez, I have activated your microphone.

You may unmute and begin.

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DONNA KALEZ: Thank you. Actually, it's Donna Kalez. I don't know how that happened, but anyways. My name is Donna Kalez. Thank you, Chair Randolph and Board members. My family owns and operates Dana Wharf Sportsfishing and Whale Watching in Dana Point.

We have been in business over 50 years. In that time, nothing has threatened to close our business for good besides COVID-19 and this new rule for harbor craft. The general public who we serve, loves the outdoors. And fishing and whale watching allows them outdoor recreation.

Also, fishing trips provide food to feed their families. They cannot afford triple the price tickets to go on our boats. We are commercial passenger fishing vessels. Please do not punish our passengers.

It is also worth mentioning that we all buy fishing licenses from the State as well as commercial fishing license for our boats. Our passengers also cannot get on our boats unless they buy fishing licenses, which would be a huge loss of income to the state that uses that money to manage the resource.

Our trips are beloved by thousands. But most notably, one of our non-profits, Fish For Life, that already called in to speak to you today, provides fishing trips to special needs children and has done so for over

12 years. These children and their families would have no access to the ocean without boats like ours. Your new rule, if enacted, would restrict access to the ocean for them as well as entire communities.

I believe that you do --

BOARD CLERK ESTABROOK: Thank you.

DONNA KALEZ: -- your board and your Staff do not fully understand what it means to put all sportfishing and whale watching boats out of business. And I invite you to come down --

BOARD CLERK ESTABROOK: Thank you.

DONNA KALEZ: -- and look at our fleet.

Thank you.

BOARD CLERK ESTABROOK: Mark Ortega, you can unmute yourself and begin.

MARK ORTEGA: Am I unmuted?

17 Hello?

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BOARD CLERK ESTABROOK: Yes, you are.

MARK ORTEGA: Okay. Hi. I'm Mark Ortega. I live in San Francisco. I'm a sportfisherman. I'm just -- you know, I know a lot of the fleet people, owners of these boats. I've looked at some of the information that's been put down, and not to repeat, but the numbers -- let's just go with the number about the one -- the one fishing boat that's putting out as much exhaust or

pollutants as the hundred and twenty buses, and that's been proven. Okay. That's -- you know, eight -- I mean, just at full power.

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Okay. So the numbers they are using for the amount of particulates et cetera for that, if that's being extrapolated into like how many people are going to die because of these boats, be -- you know, first of all -- I mean, number one, it's just wrong. They don't run that way. They don't run that way.

Number two, there's a lot of people that live near harbors. Heard people talking from Long Beach, West Oakland. These are not the boats that are ruining the air. There are containers ships. There are barges that are running all the time, you know, near the ports that are pushing this stuff out. Don't go with the little charter boats that are -- you know, that are not putting out the numbers that CARB is saying they are. The numbers that you use, they're wrong, so you can't extrapolate out to all this other stuff.

And I'm really, you know, curious about how do you get the exact number of 531. Estimates are estimates. They are not facts.

BOARD CLERK ESTABROOK: Thank you.

We will now go to Corchelle Worsham. Corchelle, I've activated your microphone, you may unmute and begin.

CORCHELLE WORSHAM: Hello. My name is Corchelle Worsham, and I'm speaking on behalf of the San Diego Port Tenants Association representing 800 businesses and 44,000 jobs.

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We have a serious concern -- we have serious concerns where the agency has proposed revisions to the Commercial Harbor Craft Regulations. CARB has proposed engine emission regulations that require technology that has not been developed or tested to be reliable and safe at sea.

CARB has concluded that the proposed regulations are not compatible with some vessels, specifically stating that vessel replacements will be likely, especially the categories with wood or fiberglass vessels. More than 80 percent of the vessels are constructed with these materials, many sportfishing, harbor tour, and whale watching boat owners will go out of business. I have concern for the personal safety of passengers and crew, and the economic survival of our boat owners, marinas, and harbors. We cannot support the regulations in its current draft and recommend that passenger commercial harbor craft be allowed to transition to lower emission engines as the technology becomes available and it is economically feasible to do so. The same path as CARB is providing to commercial fishing vessels.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next few speakers will be Vickie McMurchie, Matt Holmes, and then Mandeera Wijetunga.

Vickie, you may unmute and begin.

VICKIE McMURCHIE: Thank you. Good evening,
Chair Randolph and Board members. My name is Vickie
McMurchie and I am the Executive Director of Dana Point
Chamber of Commerce.

The community of Dana Point is known as the dolphin and whale watching capital of the world and attracts tens of thousands of visitors and tourists to our city every year. This is a major driver of economic activity, jobs, and tax revenue for critical public services. The Dana Point Chamber of Commerce strongly opposes toe proposed engine emission regulations being discussed today. The regulations as drafted are extraordinarily cost prohibitive due to the lack of existing technology. And additionally, there are a host of safety concerns associated with exhaust modifications and equipment that have not been determined safe for marine passenger vessels.

The proposed regulations require boat owners to make significant and costly changes to their engines and hulls starting as soon as January 2023 and not when the

lifespan of their equipment expires, which is an unreasonable timetable, taking into consideration that we are still in a pandemic and the economic restrictions associated with that.

Moreover, the proposed regulations completely disregard the lack of existing technology, our current supply chain shortages, inflation, and economic feasibility. As a community, we share your desire to reduce engine emissions and to protect the environment, as does the boating industry. There must be a sensible solution that protects our environment without harming our local economy and displacing businesses and workers dependent on outdoor tourism for jobs.

Thank you so much your consideration.

BOARD CLERK ESTABROOK: Thank you.

Matt Holmes.

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MATT HOLMES: Good evening, folks. Matt Holmes from Little Manila Rising down here in Mudville Stockton. You know us -- oh, can you hear me?

I don't see my clock.

Oh, yeah. You know us. We're the people we carry coffins and bury our friends early. First off, we've got no beef with the fisher folk. I'm kind of frustrated these two classes of vessels are grouped. I'm sure I can count on Ventura and Orange anglers to show up

for Stockton and the water fight, but I'm not here to beef with you guys.

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I'm here to talk about industrial harbor craft. This pollution comes to us with stationary sources at the port, freeways, idling, hotelling, ocean-going vessels, railroads, trucking facilities. These all concentrate deadly ozone, PM2.5, diesel particulate, you name it.

The point being, disproportionate pollution burdens have been planned for us and put on us without our voices in the process. So this rule is one area where CARB has the power to pony up and balance the pollution budget right here in Stockton by pushing for the most stringent and aggressive rule possible.

Something has got to give. Our lungs are full, our genetic material frays daily, our descendants will carry this pollution marker in their bodies for eternity. Not many people get a chance to impact eternity, do they, but you do. So remember that and remember the portside census tracts in Stockton right between the 98th and 100th percentile for total pollution burden. Basically, we die before everybody on this call. Our mortality rate should matter more that industry's profits or anybody's recreation and tourism.

So remember that the next time somebody pouts about tourism in Orange County. Keep your priorities

straight. And if you're unable to draft a stringent rule now, acknowledge we need to push for early action in overburdened communities like Stockton and the San Pablo harbors.

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I hope everybody enjoys their weekend and I hope a little bit of your joy is ruined by knowing that we live in a chronic status of non-attainment with the Clean Air Act.

Thank you for this opportunity to talk.

BOARD CLERK ESTABROOK: Thank you.

Mandeera Wijetunga, you may unmute and begin.

MANDEERA WIJETUNGA: Hi. Can you hear me?

BOARD CLERK ESTABROOK: Yes.

MANDEERA WIJETUNGA: Hi. My name is Mandeera. I am a climate campaigner with the Pacific Environment, as well as a resident of Los Angeles. And I'm calling in to ask CARB to support a stronger Commercial Harbor Craft Rule and more stricter emission standard for tugboats, ferries, barge, and dredges.

Members in our LA communities have suffered from air pollution for decades, and our friends who live in near ports communities are at increased risk due to pollution coming from the ports. And harbor craft are one of the top three cancer-causing polluters in the near-port communities.

Near-port communities have a life expectancy eight years lower than the county average. So this is not just an environmental issue. This is a ongoing public health crisis. These proposed amendments are expected to reduce diesel particulate matter by -- over 1,500 tons between 2023 and 2038. And this new rule will save over 500 lives and save billions of dollars in public health expenses.

This technology is available. San Diego announced the use of first all-electric tugboat in use by 2023 and there is a zero-emission ferry operating in San Francisco Bay right now. Having said that, I strongly support expanding grant access to small vessel operators to make this transfer of finance feasible. Protecting small businesses and protecting the environment shouldn't be mutual exclusive actions.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next few speakers will be J. Scott Scheper,
Martin Curtin, and then Suzanne Hume. J. Scott, I have
activated your microphone. You may unmute and begin.

SCOTT SCHEPER: Sound check.

BOARD CLERK ESTABROOK: Yep, we can hear you.

SCOTT SCHEPER: Thank you. Scott Scheper. I

25 graduated from Harvard Law School over the 30 years ago

and I've been practicing as a lawyer in Southern California ever since.

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I've been monitoring but disappointed in the process that led here. There's been a palpable disregard shown for the California Administrative Procedure Act and a lack of transparency about flawed data assumptions, and as you've heard, errors in staff's analysis, which have been compounded by a refusal to modify assumptions when better data has been furnished by impacted stakeholders.

The genesis of the early pre-release separation of CPFV from CFV also remains an unanswered question, though staff has acknowledged substantial data errors. Instead of seeking true, accurate, and informative data, they've doubled down, refused to adjust, and present to you a proposal founded on incomplete and wrong data assumptions and conclusions.

A clean environment is a shared goal, but progress should be intelligent and thoughtful, informed by the full suite of consequences, not just narrative driven sound bites. Addressing interrelated and complex impacts on all of our citizens requires cooperation and flexibility, not dogmatic commitment to a predetermined course.

Staff should be directed to work with not fend off the affected vessel owners and communities to get

correct data that is available and transparent to everyone.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Martin Curtin, you may unmute and begin.

MARTIN CURTIN: Good evening. My name is Martin Curtin. I'm the CEO and founder of Curtin Maritime. We're a tug and barge and marine dredging operator based in Long Beach, California.

First off, I want to say that I'm in full support of CARB's actions to lower emissions. I grew up on the ocean. It's a very important part of my life and my children's life. But in this case, it looks like a clear cut case of regulation trying to drive innovation, which we haven't done in the past successfully.

My company is currently building the largest and cleanest mechanical dredge in the United States. It's a Tier 4 hybrid. It burns 30 percent less fuel than a straight Tier 4. And we're doing that for a piece of equipment that's not regulated at all. So when we're left to our devices, we do the right thing. But when regulators come in and try to push things down on us and try to drive innovation through regulation instead of incentives, I've never seen it to work properly.

The data that CARB is using is completely

incorrect. The classification, a lot of the vessels that are falling into harbor craft are incorrect. And I get the feeling that CARB is using this harbor craft as a catch-all to account for a ton of emissions that they can't properly account for.

I really recommend that CARB take a step back and do this the proper way, instead of just running down a path blindly.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Suzanne Hume.

After Suzanne, we will have John Bottorff, then Jim Babcock, and then Joseph Murray.

Suzanne, you may unmute and begin.

SUZANNE HUME: Good evening, Chair Randolph and CARB Board. My name is Suzanne Hume. I'm the Educational Director and founder of CleanEarth4Kids.org.

Today, we are talking about saving people's lives. We must move forward now. Organizations representing hundreds of thousands of people like the Sierra Club, the American Lung Association, Earthjustice, and grassroots organizations urge you to take action now and save lives. Thank you for adding additional stringency for vessels in disadvantaged communities. Our kids, families, seniors, especially those in frontline

communities need your help and we cannot wait. Your actions save lives and billions in health care and related costs. Air pollution harms nearly every cell in the body.

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We support zero emissions as soon as possible, no later than 2035, and that is 14 years from now.

Zero-emission credits will help expedite the process. We must have yearly technology reviews. Clean air is essential. The technology exists for zero-emission boats and ships. We have the zero-emission ferry in San Francisco Bay and San Diego's all-electric tug but in 2026.

Ships emit massive amounts of toxic air pollution, black soot. But we can save lives with stronger commercial aircraft[SIC] rule and stricter emission standards. Please add all, all and shorter idling times for in ports. Fifteen minutes is too long. Every minute of idling in port endangers public health. No for-profit industry should be able to harm our air, water, kids, families, or seniors.

BOARD CLERK ESTABROOK: Thank you.

SUZANNE HUME: Thank you.

BOARD CLERK ESTABROOK: Jim Bottorff. You may unmute and begin.

JOHN BOTTORFF: Hi. Thank you. My name is John Bottorff with CleanEarth4kids.org. Please require zero

emission for all harbor craft by 2035 at the latest, including tugboats and barges. Ships are one of the worst air polluters in California, and toxic exhaust from harbor craft are a major cancer risk for those living near the ports of Los Angeles, Long Beach, San Diego, and Oakland.

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This is about racial, social, climate, and environmental justice. And disadvantaged communities and communities of color suffer the most from harbor pollution. We must prioritize people's health. Real people are being hurt by harbor pollution every day. Why is it okay that the lives of poor people of color are being sacrificed? These are really people who don't have the means to live anywhere else and they are being forced to choke on diesel fumes every day, where even air pollution has a price, a price that is being paid by the most vulnerable.

This pollution means higher rates of asthma, cardiovascular disease, and other health related illnesses like Alzheimer's and Parkinson's. This must stop. The pollution from these ships are poisoning children. We have the technology to move to 100 percent zero emissions now. We must stop burning stuff. Please take steps to stop these vehicle and all other fossil fuels in our harbors and provide adequate financial assistance for ship owners to transition, especially small business owners.

Please provide strong action to protect our air and stop the use of diesel and all fossil fuels. This rule is very important, because it will also drive manufacturers to develop zero-emission systems. If not pushed, they will continue business as usual. And I would also ask you to work with federal and international agencies to address the air pollution from ocean-going vessels as well.

Thank you

BOARD CLERK ESTABROOK: Thank you. Jim Babcock, you may unmute and begin.

Jim, are you there?

Jim Babcock?

JAMES BABCOCK: Okay. Can you hear me now?

BOARD CLERK ESTABROOK: Yes, we can. Thank you.

JAMES BABCOCK: Sorry about that. My name is

James Babcock. I represent a large population of

California. I'm retired and on a fixed income. I recycle

19 bottles and cans to go on fishing trips on local

20 | sportsfishing boats. If this proposal passes, a few hours

21 on a fishing trip will cost -- go up from \$65 to \$195.

This will absolutely take away any chances of ever fishing

23 again.

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That's not -- that may sound like it's not a big

deal, but it will shut down the sportsfishing industry,

all tackle shops, all people work at sportsfishing fleets, and so on. Double standards. Sportfishing boats have been regulated the same way commercial fishing boats, ones that put fish on your table. There are -- these vessels are the same engines, same emissions.

However, under CARB's proposal, commercial boats will get a grant to power -- repower their boats.

Sportsfishing boats will not -- sportfishing boats cannot fit engines that will comply to these emissions and will have to buy new boats that will triple the price of fishing. Please fix this proposal. Don't take away sportsfishing in California.

Thank you.

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BOARD CLERK ESTABROOK: Thank you. Our next speaker will be Joseph Murray. After Joseph will be Greg Kelly, then Wesley Chuang.

Joseph, you may unmute and begin.

Joseph, are you there?

Okay. I will try coming back to you.

Let's go to Greg Kelly. Greg, you can unmute yourself and begin.

Greq, are you there?

Okay. I'll come back to you as well.

Wesley Chuang.

Wesley, are you there?

WESLEY CHUANG: Hi. Hello.

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BOARD CLERK ESTABROOK: Yes, hi.

WESLEY CHUANG: Hi. My name is Wesley Chuang.

I'm a concerned citizen, resident in LA. And I like to go on eco-tours, and fishing, and all that, but that is privilege that I have. That is a luxury. And we're dealing with climate change, which is an emergency, bigger than COVID. And when COVID hit us, all the inessential stuff has to cease. So we have to prioritize. We have to put priority in people's lives and the actual -- the true cost of climate change and all the negative stuff that will happen.

And any business that wants to survive will have to change. They've been warned for many, many years that climate change is coming and people are dying from diesel. And I'm guessing that there have been obstructionists for a long time. And when the time comes that government has to regulate stuff, it — they just have to change. At one — at one point, we can't do business as usual. So it's either change or die. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Let's try Joseph Murphy one more time. Joseph, are you there?

Okay.

Our next speakers will be Thomas Ferguson, and

then Janet Dietzkamei, and then Sylvia Bentacourt. Thomas, you can unmute yourself and begin.

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am one of the end users of the fishing fleet that -usually out of San Diego. It is very expensive now. And
I get to go maybe one time a year. It's something I look
forward to. If you pass this burden on to the boat
owners. They will -- if they can stay in business, they
will pass it on to their patrons. And so I'm asking that
the Board would consider a more reasonable implementation
or more reasonable time frame for the implementation of
the policies, which everybody agrees is a goal.

The auto industry did not require all the cars to go and be retrofitted. They placed new mandates on new vehicles that they would be produced in such a manner.

And I think that's a reasonable course to take, instead of trying to overburden the fishing fleet and all the charter services out there to reconfigure the boats, where the new technology isn't there to update to a safe procedure.

You know, when you look at the scope of the fishing vessel and the scope of their impact. It's literally a spit in the ocean. When you look out against all the cargo vessels that are out there, if you stand on the shore of Seal Beach, you see a brown cloud around all those cargo vessels. And they are tens of thousands of

times of the mass of this small fishing vessel fleet. And so there needs to be equity in this and it needs to be a fair and reasonable way to implement it.

BOARD CLERK ESTABROOK: Thank you.

Janet Dietzkamei, you may unmute and begin.

JANET DIETZKAMEI: Thank you. This may seem undoable. The ag industry felt the same years ago. The agricultural industry was expected to significantly reduce emissions through education, through new technology, through incentives, through information exchange between CARB and the ag industry personnel.

What was seemingly unresolvable has been worked out. The agricultural progress has been good and the same can be done with the boat owners. Air pollution affects people's health, especially the physical and mental development of children.

Greenhouse gases must be reduced. We have no other choice. More tragedies and problems will develop for California residents, drought, less available water, more wildfires, more extreme weather will increase. This can be done. It takes working together. This must be done.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Next will be Sylvia Bentacourt. After Sylvia

will be Marlin Dawoodjee -- Dawoodjee -- sorry, if I've mispronounced that -- and then Cynthia Lau.

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Sylvia, you may unmute yourself and begin.

SYLVIA BENTACOURT: Good evening, Board members.

My name is Sylvia Bentacourt. I work with the Long Beach

Alliance for Children with Asthma. We're based at Miller

Children's and Women's Hospital of Long Beach at Long

Beach Memorial.

The work that we do is to work with children who have uncontrolled asthma. And we know that in the harbor region, there are higher rates of asthma for children. The problem with this is that we know that the closer you are to diesel source of pollution, the higher the risk of asthma, the higher rate of asthma, and the reduce function -- lung function for children.

And so I urge the Board for a strong rule today and that you also -- pardon me, I'm -- I also ask that you have a stronger rule by 2035, so that we make sure that we achieve ZE, zero emissions, by 2035 for tugboats, ferries, dredges, and barges. This is extremely important as we know that doctors can do all that they can to treat children's health. But once a child goes home, to be consistently exposed to diesel pollution will only continue to harm their health. You have the opportunity to make a decision to do right by our children. Our

children deserve better.

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Thank you for your time.

BOARD CLERK ESTABROOK: Thank you.

Marlin, you may unmute and begin.

MARLIN DAWOODJEE: Hello. Am I unmuted?

BOARD CLERK ESTABROOK: Yes, we can hear you.

MARLIN DAWOODJEE: Perfect. Good evening,

everyone. My name is Marlin Dawoodjee and I work with the Long Beach Alliance for Children with Asthma. And I'm here to voice the urgency in strengthening the Commercial

11 | Harbor Craft Regulation. I work daily with the

12 communities that are disproportionately affected by the

air pollution in one of the country's most polluted

regions with the highest rates of asthma. And this is due

15 to cumulative impact from various sources of

16 contamination, including the emissions from these vessels,

17 | so it cannot go unignored.

I do find it interesting, and honestly quite disheartening, that some of the concerns for this amendment would be that these communities would no longer be able to afford a boat or take a ride on a fishing boat. The main concern should be discussed is that we cannot even afford to breathe. We cannot afford to breathe with the current air quality. This includes costly emergency room visits and hospital bills, guardians missing workdays

because they have to take care of a child with asthma

It was stated that some opportunities would be missed with this amendment, but honestly this proposed amendment would provide the opportunity to breathe in clean air. That is what we should be concerned about. We all saw the presentation prior to this public comments section that discussed all the health benefits and lives we could save. The Air Resources Board has the responsibility of protecting our community by strengthening the Harbor Craft Rule.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Our next speaker will be Cynthia Lau. Cynthia, I've activated your microphone. You can unmute yourself and begin.

CYNTHIA LAU: Hello.

BOARD CLERK ESTABROOK: Hi. We can hear you.

CYNTHIA LAU: My name is Cynthia Lau and I'm here on behalf of the environmental Justice Coalition for Water and Café Coop. For over 16 years, we have worked in disadvantaged communities helping to provide them with access to clean safe and affordable drinking water. In the past two years, we have been working with the AB 617 Stockton steering -- community steering committee and we've learned a lot about the dangers of air pollutants

and how bad the air quality is in our local community.

And we just realized that there is so much more that we need to learn with regards to contaminants in our air.

You know, it's essential for us to have clean air. And we're expanding our knowledge as to, you know, what we could do to help in this arena with regards to making sure people have access to clean air, especially in disadvantaged communities.

We thank the Chair, the Board, and the CARB staff for this wonderful presentation this afternoon on the proposed amendment to the Commercial Harbor Craft Regulation and we wholeheartedly support the proposed amendment.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

Next, we have a phone number ending in 461.

Please state your name for the record before you begin and then you my begin your comment.

J. JEFFERY MORRIS: My name is J. Jeffery Morris.

I'm a private citizen. I'm an attorney from Loyola Law

School. I'm a longtime sportfisherman. I'm a past

Regional Governor with the Izaak Walton League of America,

one of the oldest conservation groups in America. I am a

current member and pass Board of Director of Marina Del

Rey Anglers. We take up to 1,000 underprivileged and

special needs kids fishing and raise and release juvenile white seabass every year. We are over a 30-year conservation fishing club.

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Everyone wants clean air. And it is a worthy goal. However, regulations that crush an entire industry that provides access to fishing, whale watching, marine research, and kids fishing programs must be balanced against lesser restrictive regulations. The impact on an entire California fishing fleet and businesses that support and benefit from ecotourism, whale watching, fishing is not being fairly balanced and considered against the agreed need to clean air. No one has denied that, every single person I've listened, and I've been on this call for a long time.

BOARD CLERK ESTABROOK: Thank you.

J. JEFFERY MORRIS: The Coast Guard -- I'm done?
BOARD CLERK ESTABROOK: That concludes the time.

Our next speaker will be Sebastian Lanswik. Sebastian, I have activated your microphone. You may unmute and begin.

SEBASTIAN LANSWIK: Hello. My name is Sebastian Lanswik. I'd like to address many of the arguments for pro-regulation -- pro-CARB regulation. By CARB's own admission, passenger boats would need to be replaced and this would be 80 percent up to almost all of these boats.

And this would see an increase in carbon emissions via steel refineries. This uses coal, which emits a lot more than many of these individual boats.

On top of this, with the destruction of an industry, which is indisputable at this point, this will see a decrease in revenue from fishing licenses, which is used for marine research, as well as protection. And I'd like to remind everybody that along with -- along with the destruction of an industry, many of these irresponsible fiscal policies that go for environmental protections can potentially destroy the economy as a whole, as seen by the damaging effects in the California economy.

I'd like to remind that many low-income countries are not necessarily at the forefront combating global climate change. We don't want to go backwards. We want to go forwards in combating climate change, but we can't do that with a crippled economy. This is just an example of how this could cripple our economy and affect our battle against climate change. No one here is against battling climate change, especially our fishermen.

Thank you.

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BOARD CLERK ESTABROOK: Thank you.

The next speakers are Greg Hurner, And then Duane Winter.

Greg, I've activated your microphone. You may

unmute and begin.

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GREG HURNER: Thank you Chair Randolph and members of the board on behalf of the sportfishing and whale watching communities. First, I want to emphasize that we are available to any Board member if you want a tour of a vessel to learn more or would like to attend a fishing and ocean science trip through one of our social justice programs we support. The Clerk of the Board has my cell number.

Let's clarify something, staff were very specific in crafting the commercial fishing rule to only require Tier 2, not because staff support Tier 2 as they clearly don't. And it is not possible to purchase a new Tier 2 engine. What it does is preserves commercial fishing's access to the Carl Moyer Program. We want the same access. If engine and DPF salespeople get an approved solution that can be retrofitted and is safe, it would become the best available technology under Carl Moyer.

Many sportfishing vessels have used Carl Moyer to upgrade twice and they don't plan to stop, because they are committed to clean air as well. What's sportfishing vessel owners have offered is using the best available technology to retrofit existing boats and working with our elected State and federal champions to help transition to reach our 2045 goals.

This is a fair balance between the contributions from our fleet with the State's goals for social justice by providing equitable access to our natural resources. We stand ready to work collaboratively with the Board and the Legislature.

Thank you for your time this evening.

BOARD CLERK ESTABROOK: Thank you.

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Our next speaker will be Duane Winter. Duane, you can unmute yourself and begin.

DUANE WINTER: Hello. Can you hear me?

BOARD CLERK ESTABROOK: Yes, we can.

DUANE WINTER: Hi. This is Captain Duane Winter.

I operate a boat called Mooch out of Half Moon Bay,

California.

The first thing I want to say is you're saying that one charter boat emits as much pollutants as 162 school buses. That's preposterous. I mean, first of all, you're saying that an 800 horsepower motor running a hundred percent against school buses. I have 400 horsepower power and I run at less than 50 percent. And I run most of my time outside of State waters, and most of that time is either drifting or idling.

So all of your stuff that you're proposing how many people are dying and all of this is preposterous.

It's just not accurate. There are no Tier 4 motors that

will work in my boat or many of the boats in our fleet.

There's not a single boat in Half Moon Bay that can put

after Tier 4 motor in their boat and operate. It doesn't

exist. I've talked to all the manufacturers.

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To go to a Tier 3 motor in my boat, I've got quotes at \$196,000. This is money I cannot recoup in the rest of my lifetime, let alone a Tier 4 motor that doesn't even exist.

All I'm asking -- you know everybody wants clean air. The people that are for this proposal want clean air, so do we. Just make it possible so that we can achieve this. Put us back in with the commercial boats, give us the time. Let technology catch up to us. We'd be happy to comply. Don't make it impossible.

BOARD CLERK ESTABROOK: Thank you.

I will try Greg Kelly again. We weren't able to hear from you earlier. Greg, I have activated your microphone. You can unmute and begin.

Okay. Our next comments will be Denise De Cock, Kenny Allen, Kimberly Bennink.

Denis, I have activated your microphone. You may unmute and begin.

Denise, are you there?

Okay. We will go to Kenny Allen. Kenny, you can unmute and begin.

KENNY ALLEN: Hello. My name is Kenny Allen. I am a resident of Long Beach. I live about a mile from the port. I'm calling tonight to ask CARB to support a stronger Commercial Harbor Craft Rule and vote for stricter emissions standard for tugboats, ferries, barges, and dredges.

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environmental and climate issue. It is an ongoing public health crisis that needs to be addressed now. If ARB is not going to add more zero-emission vessels target in this rule, I join other community members in asking that the Board direct staff to explore using contingency measures to achieve more zero emissions in harbor craft.

I also join other community members in asking that staff be required to conduct a technology review every year, not every three years, with the mandate to further strengthen the rule based on findings of each year's technology review.

The technology exists for zero-emissions boats and ships. Just like cars and trucks, boats and ships must transition off of fossil fuel propulsion. The time is now to electrify everything. No industry should get a free pass at the price of our frontline communities and the environment.

Thank you for your support.

BOARD CLERK ESTABROOK: Thank you.

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Our next speaker will be Jonathon Smith. After Jonathon we will have Kimberly Bennink and then Jamie Diamond.

Jonathon, you can unmute yourself and begin.

JONATHON SMITH: Yeah. Hi. My name is Jonathon.

I run the -- I run the charter boat Happy Hooker in

Berkeley. I've been on this call for a long time now.

And, you know, I agree with people saying that, you

know -- we want to help out emissions too, but it's got to

be at a better pace. This is impossible for us to do,

especially in, you know, the eight to 13 period you

guys -- year period you guys are talking about.

Nobody can afford -- nobody that's a small business owner like me will be able to afford any kind of new boats like that. And the technology just does not exist to put in these vessel. It's crazy to think as a business owner that, you know, I might be even faced with this decision sometime in my life of having to give up or sell out of state for pennies on the dollar, you know, but if you guys could just come up with something that would help us out down the road where it was possible once the technology catches up.

The proposed regulations are just crazy, especially with the -- with the very little data on CPFVs

that you guys have provided. Our boat, we've got a Tier 2 and we have Tier 3 scheduled for install for year 2023 and 2022.

BOARD CLERK ESTABROOK: Thank you.

Thank you. That concludes your time.

Or next speaker is Kimberly Bennink. Kimberly, you may unmute yourself and begin.

Kimberly, are you there?

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Okay. We will go to Jamie Diamond.

JAMIE DIAMOND: Good evening, Chair Randolph and everybody else here. It's been a long day. I've been on the -- on this Zoom since 9 a.m. waiting for this moment. I just would like to say I own CPFVs, charter passenger fishing vessels. I operate out of Santa Barbara. And we are not against getting better cleaner engines. We are asking for a path forward that allows us to do it. Help us help you. Help us help California. Help us help our communities. Put us back in with commercial fishing vessels, so that we can get to compliance with the technology as it becomes available that we don't have to rebuild entire new boats out of steel. It just doesn't make sense.

I use my vessels for more than just fishing. We are a research platform for University California Santa Barbara students to conduct marine fisheries research. We

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take kids from Title 1 schools on floating marine labs. We are their first ocean interaction, and for some of them, their only, till adulthood. These are kids that live within miles of the ocean, but yet don't have the means to get there, if it wasn't for our programs.
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We put food on the table for families and we offer a recreation -- a safe recreation activity in a time of COVID. We were one of the first allowed recreational activities during COVID, because we could safely do so. We're outside in clean air. Clean air. We provide this amazing opportunity for so many people to explore the biggest wilderness, which is the ocean. Please let us continue to do so with a path that allows us to achieve compliance

BOARD CLERK ESTABROOK: Thank you.

JAMIE DIAMOND: We're not fighting the goal.

Thank you.

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BOARD CLERK ESTABROOK: Thank you. That concludes your time.

Our next speaker is Leon Benham. Leon, you can unmute yourself and begin.

Okay. Kimberly, let's try you one more time.

Are you able to unmute?

LEON BENHAM: Yeah, this is Leon Benham.

KIMBERLY BENNINK: Can you hear me?

LEON BENHAM: Should I unmute.

KIMBERLY BENNINK: Shit.

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BOARD CLERK ESTABROOK: Okay. I will have Kimberly go and then I will have Leon. It looks like both of your audio began working at the same time. So I'll have Kimberly go first.

KIMBERLY BENNINK: I'm going to be really brief, guys. Hey, listen. I'm a wife of a fisherman. I don't have all the technical stuff to say, but I want to address one thing that's really, really important in this meeting for fishermen. Fishermen are people that are -- I'm sorry. I'm just a little bit caught off guard. Fishermen go through depression, anxiety. Sometimes they have thoughts of suicide no matter which coast you're on. It's isolating. It's a very dangerous occupation. It's full of uncertainty, but it's full of definite sacrifices. These fishermen, it's their whole life. It's their passion. It's their love.

And if something comes of this and they lose their own livelihood, I want to talk about mental health. And mental health is so important that we need to talk about, because you're going to be looking at depression, we're going to be looking at anxiety, we're going to be looking at possible drug problems. And this is real, guys.

So I just want to address that. I thank you so much. I hope that you guys all figure this out. I see both sides of this and I come from a news network. I'm also a casting director for the Disney Channel. And I just really want the best for the right situation. I see both sides, but I definitely see that it's a very expensive situation and it's not going to work.

I'm done. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Okay. Leon.

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LEON BENHAM: Yes, I'm here.

BOARD CLERK ESTABROOK: Go ahead.

LEON BENHAM: Hi. My name is Leon Benham. I'm a conservationist. And I'd like the CARB Board to know that in 1977 I was doing studies on car emissions. And because of CARB and the efforts put forth with catalytic converters, we have reduced the amount of emissions in California by 90 percent. And, you know, that's a great thing. But right now, sitting off the coast of California are 111 container ships that produce 5,500 tons of air pollution and solids into our environment every year.

If you look at the commercial fishing fleet right now and compare it to the 111 container ships, it would take 23 years before that -- the commercial fishing fleet would be able to surpass what's sitting off the coast

right now. It makes no sense to kill this viable coastal community of fishermen and not giving them the time and the resources to change out their boats, especially with the trillions of dollars being spent. CARB should back off and give a timeline to correct the fishing fleet and pay for it.

BOARD CLERK ESTABROOK: Thank you.

Thank you. Let's try Greg. I'll try you one more time. I haven't been able to successfully hear from you. You should have a prompt to unmute now.

Greg, are you there?

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Okay. I do apologize for that. We are not able to see you unmute on this end.

One last commenter is Chauncey Preal. You can unmute and begin.

Chauncey Preal. I'm the owner/operator of the Sea Jay.

You know, this is really -- I believe a lot of this data is erroneous. None of us boat owners want, you know, the environment to be damaged in any way. We want to work with everyone. I can tell you what it does for me. I come from a troubled -- a troubled area. This has definitely changed my life and many others around us.

Many anglers that I've known for 20 some years that fish on boats, we do it for recreation, friendship,

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comradery, everything. I do charities. Do everything to
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    bring the kids back and understand what -- you know, what
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    they have a future of, not just because it's, you know --
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    just what -- not the industry itself, but what we do.
    People do cancer fundraisers. We do everything.
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                                                      We take
   people out to -- you know, when they were doing the fires
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    to test waters. We help everything, you know, for -- you
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    know, and it should be noted. You know, to -- they should
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   work with us. We're trying to work with them.
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    could tell you that this would put my business out of --
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    it would destroy it. It would not -- I would not be able
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    to afford a new boat. And for what we do for everyone and
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    what they do for us is they should work with us. You
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    know, we provide real smiles. You know, it doesn't
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    change. It's tough for us, and our families, and for all
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    of us. We spend a lot of time out there.
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             Thank you. Consider what we say. We appreciate
    it.
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             BOARD CLERK ESTABROOK: Thank you after. Okay.
    Try one more time, Greg Kelly.
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             If you're on the phone and phone number ending in
21
    536, you need to dial star six to unmute. Is this Greg
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RICK POWERS: No. My name is Rick Powers, and thank you for the opportunity to speak

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Kelly?

BOARD CLERK ESTABROOK: Okay.

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RICK POWERS: My name is Rick Powers. I'm

President of the Golden Gate Fishermen's Association. I

own and Captain a licensed commercial fishing vessel,

which is operating as a passenger fishing vessel.

This idea that our boats have been carved out of the commercial fishing sector, because of the ability to pass the expense on to the customers is not true. The huge increase in the cost of a passenger ticket would put going fishing out of most people's reach.

We support emissions reductions. As an example, in San Francisco Bay, which we have been told is an area of concern, there are a total 27 CPFVs. They fish either at anchor, drifting, or idle speed salmon trolling. Most of the activity is offshore. Of the 27 boats, 22 of them are already Tier 3. The remainder plan to upgrade to Tier 3 shortly as part of grant programs. As new technology becomes available and is tested and safe, boat owners will continue to upgrade.

What is being proposed in the rule for machinery is not feasible. There are safety concerns of stability and heat that would make it a constant worry of breaking down at sea with a boat load of passenger, especially in this area of strong winds waves and current --

BOARD CLERK ESTABROOK: Twenty seconds.

RICK POWERS: -- outside of the harbor and across the bar. Our boats are the only way lower economic communities in the Bay Area can access the ocean. This rule will end their access in most cases. We recommend you put commercial passenger fishing Vessels back into the commercial fishing sector as it is a path to compliance.

We've been --

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BOARD CLERK ESTABROOK: Thank you.

CHAIR RANDOLPH: Is that the last commenter?

BOARD CLERK ESTABROOK: Chair, that concludes the commenters for the item.

CHAIR RANDOLPH: All right. And thank you to our clerk for doing an amazing job with quite a lot of public comments --

(Applause.)

CHAIR RANDOLPH: -- in a new setting. We really appreciate that.

Okay. So before I close the record on this item, there was a lot of -- there were a lot of kind of factual things going back and forth. And I think what might be useful is maybe give the Board members a few minutes to just ask some factual questions of staff, so that we can understand kind of, you know, some of the issues that were swirling around.

So I can kick it off. There was a lot of

conversation about the Coast Guard and the Coast -- the requirements that Coast Guard approve equipment. And so I would love to get some information from staff about what our communications have been with the Coast Guard and how that whole process works.

EXECUTIVE OFFICER COREY: We'll just go to Dave Quiros for the responses to that question and some of the others that follow.

Dave.

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TTD FREIGHT TECHNOLOGY SECTION MANAGER QUIROS:

Thank you, Madam Chair and members of the Board.

This is David Quiros, Manager of the Freight Technology

Section at CARB.

Our group, over the last three years, has engaged with the Coast Guard on numerous occasions. I believe we had seven separate meetings documents in our rulemaking package. We've spoken both with the Marine Safety Center as well as the 11th District that's here in California. The engines that are used in marine vessels are not certified by the U.S. Coast Guard, but the Coast Guard does review the installations to make sure they're safe in vessels.

Tier 4 engines have been sold since 2014, so the Coast Guard has reviewed, and inspected, and approved their use in numerous vessels. And for the DPF rule that

we're proposing today, the Coast Guard has regulations for the exhaust systems, and DPFs are not treated any differently than the exhaust systems and the exhaust manifolds are on vessels as they are today and have been for the last couple decades.

CHAIR RANDOLPH: Okay. Thank you.

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Then I had a question about the Carl Moyer funding, because it was unclear to me -- several commenters mentioned that adopting the rule would preclude the use of Carl Moyer funds. And I just wanted to understand how that process works and what would be allowed and not allowed, if this rule were adopted.

TTD FREIGHT TECHNOLOGY SECTION MANAGER QUIROS:

Thank you, Madam Chair. I can take that question as well. This is David Quiros again. The Carl Moyer Program is an air quality incentive program that funds emissions reductions that are not required by regulation. So just because we're proposing this regulation doesn't necessarily mean that Carl Moyer funding opportunities will go away for those vessels. There's a surplus period. So as long as the operators are requesting and installing engines or retrofit devices in advance of the surplus requirements, which can include some compliance extensions, those opportunities will exist.

I also want to highlight that the Carl Moyer

Program, through its case-by-case approval process, does allow for funding vessel replacement. And funding amounts can be given in up to 50 percent through that program for vessel replacement.

CHAIR RANDOLPH: Okay. Thank you. Do any other Board members have any factual questions before we have a substantive conversation?

Dr. Balmes.

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BOARD MEMBER BALMES: Yes. I wanted to ask about the one engine, Tier 2 engine, 162 bus -- school bus analogy. I must say I was struck by that when I had my staff presentation, but it does sound like we may have kind of fudged that a little bit in our favor, in terms -- or I shouldn't say in our favor, in favor of the regulation. So can somebody address this about how -- how much faith we should put into that equation?

TTD FREIGHT TECHNOLOGY SECTION MANAGER OUIROS:

This is David Quiros again. I can take that question. The 162 school bus statistics was not fudged in our favor. It's highly conservative as presented. And the reason why it's so extreme is that the controls for on-road engines have been in place and are a lot more stringent and effective at reducing diesel PM emissions than those that are on marine engines.

So we did a direct comparison of the emission

factor of a Tier 2 marine engine with a five-year old on-road engine certified to the model year 2010 emissions standards. We assumed the exact same load and we assumed that the engines were the same size.

Now, fishing vessels typically have two or more engines, and have at least twice or more the amount of horsepower as a typical school bus. So if we considered the size of the engines, we would be looking at a factor much larger than a 162 school buses. It would be in 300s or higher.

BOARD MEMBER BALMES: Thank you, David.

CHAIR RANDOLPH: Okay. Any other factual questions before I close the record?

Vice Chair Berg.

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VICE CHAIR BERG: Can I just follow that up,

David. So you did a Tier 2, but we heard much testimony

about the number of vessels that were at Tier 3.

TTD FREIGHT TECHNOLOGY SECTION MANAGER QUIROS:

Thank you, Vice Chair Berg. I can respond to that as well. So the Tier 2 vessel comparison is 162 school buses. And if we look at Tier 3 statistic and there are some Tier 3 engines. There are a lot of Tier 3 engines, but that's a cleaner than average engine. But still, if we looked at the Tier 3 engine, it would be equivalent to about 90 school buses. So we have a long

way to go still to clean up marine emissions to put them on par with where on-road vehicles are today.

VICE CHAIR BERG: Thank you for that clarification.

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CHAIR RANDOLPH: Any other questions?

Okay. So I'm going to go ahead and do the record-closing process and then we'll have more discussion.

Okay. As we mentioned at the outset, this is the first of two Board hearings. We will close the record on this agenda item. However, if it is determined that additional conforming modifications are appropriate, the record will be reopened and a 15-day Notice of Public Availability will be issued. If the record is reopened for a 15-day comment period, the public may submit written comments on the proposed changes, which will be considered and responded to in the Final Statement of Reasons for the regulation.

Written or oral comments received after this hearing date, but before a 15-day notice is issued, will not be accepted as part of the official record on this agenda item. The Executive Officer may present the amendments to the Board for further consideration, if warranted. And if not, the Executive Officer shall take final action to adopt the amendments after addressing all

appropriate conforming modifications.

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Okay. I will open it up to further Board discussion.

Board Member De La Torre.

BOARD MEMBER DE LA TORRE: Thank you.

I want to thank staff. These innovative regulations, you know, going in and doing -- going across the board on harbor craft are -- they're always difficult. We've had other experiences with other sectors and when we go in for the first time, it's always very, very difficult. So I want to thank staff for their work.

In terms of this regulation, I think it's very important, there's a lot of fear and I think concern about how we conduct ourselves and the things that we do at CARB. And I think frankly that they're not what we do, not how we do what we do.

So flexibility which a lot of folks asked for. There is a one-time baked in extension that the regulated parties, the boats, can apply for. That's incredible flexibility. There's an alternative compliance path, if they can produce equivalent emission reductions. More flexibility. There is going to be -- there was a lot of concern that there were not -- the technology was not available. And there is going to be a technology and implementation assessment in a few years.

So there are plenty of opportunities built into this regulation that give us that flexibility. And then finally, the Legislature can fund some transition and early action programming before the regulatory mandate kicks in. And so we -- I personally will reach out to some legislators who have reached out to us with their concerns about this regulation, and so they can -- you know, if they're -- if they're very concerned, they can put some money on the table and we can help folks with this transition.

So again, there's plenty of flexibility here.

But what's important to me is that we have a date certain where we are going to clean up this sector. And that's what's really important in terms of the clean air and in terms of greenhouse gases going forward.

Thank you.

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CHAIR RANDOLPH: Thank you.

I'm going to jump ahead a little bit here, because I kind of wanted to follow up that comment with sort of a question for staff that's more of a policy not a factual question. And it kind of relates to the technology assessment and the extensions that are permitted under the regulation. And I guess I just wanted to understand a little bit more about the extension process, because I know previously I have talked to staff

about concerns that the extension process be, you know, easy to access, relatively simple, and not too expensive. So I kind of want to understand what the opportunities are there, because I think that can provide an important sort of opportunity to take the time to have the regular technology assessments and understand what the options are when it comes to Tier 4 engines as the -- as the market conditions to develop. So I would love to hear some more on that.

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EXECUTIVE OFFICER COREY: I'm going to ask

Heather Arias the Division Chief overseeing the reg to

comment on the -- Heather, the extension process as well

as the number of extensions provided for and what it takes

to come in under that -- the application process, if you

would.

Heather Arias, Transportation and Toxics Division Chief.
And the extensions that are outlined in the regulation require several different pieces. First is an assessment as to why they're requesting the extension. Is the technology not available or is it not working? Is it a financial request? Then is data available to back the financial request up? How many engines are they asking for?

As we showed in the slide themselves, there are

different extension opportunities depending on which vessel types that we are talking about. That was the slide that had the green, the blue, and the black. And one of the things that you did ask us to look at, Chair, was are there opportunities to streamline the process?

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And what we have been thinking about and are still working on a little bit is the technology assessment itself is what it seems to be the opportunity for which that we might be able to do some work on our end and see if we can streamline that. So as we did in technology analyses for the regulation itself to come before you today to tell you what technology is available, we may be able to do a more streamlined version of that ourselves and provide some of that documentation. So that would be less documentation necessary for the fleets to bring forward.

CHAIR RANDOLPH: So that would reduce some of the costs that were assumed in the analysis in terms of obtaining extensions?

TTD CHIEF ARIAS: Correct.

CHAIR RANDOLPH: Okay. Thank you. All right.

Other Board members with comments or questions?

Oh, go ahead.

Vice Chair Berg, did you want to go or shall we go with Board Member Riordan.

VICE CHAIR BERG: I'll go ahead and go.

CHAIR RANDOLPH: Okay.

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VICE CHAIR BERG: Is that okay, Barbara?

BOARD MEMBER RIORDAN: Yes, absolutely.

VICE CHAIR BERG: First of all, staff, thank you very much. You know, this does -- from being a Board member for quite some time going through the Truck and Bus Rule, going through several regulations that does truly affect small businesses, very specialized businesses, and yet the outcome does make a tremendous difference to our communities. And we have heard time and time again how important that is.

So I think -- I did take notes on almost every speaker, and -- but I have to say that Kimberly at the end that had such a compassion both to her husband that's a fisherman and yet understood the impacts, and said we must find a way to make this work. I agree. We don't want to take people off the water. You know, the water is magical. And it was heartwarming quite frankly to hear about the number of people that utilize nature as getting people out of their environment and improving their environment. And so I just did want to make that call-out. And what we're trying to do is improve the environment for all, including those fenceline communities, those communities that do have the impacts.

So I think as I look at the compliance schedule and one of the requests that looking at the research, sportsfishing and excursion wanting to go into commercial fishing, and yet if we look at, we're not giving the commercial fishing any extensions and I'm not sure they realize that.

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And so even though we might be asking them to start a little bit earlier, could staff please take a look at, and when we come back, how are the one and two vessel operators being treated, because that's a big deal. And can they get pushed closer to start in the 2030 range, so that they can take more opportunity for Carl Moyer funding? Can you look at those very small businesses and see how we can allow them to take advantage of more Carl Moyer and more incentive funding?

I don't see the advantage of putting them in the commercial fishing, given that we have opportunity for them to extend and have going out to 2034. And maybe there wasn't as much understanding about that. And so could we reach out and figure that out?

And speaking about outreach, once we come back and address this for the final vote, we are going to have to have an extensive outreach program. We're going to really need to get the correct information, because I believe Member De La Torre absolutely nailed it and it is

the fear of losing your -- you know, losing everything that looks like generations that have been, and that isn't our intent. And what we have seen in the past is that we do come around to solutions. And so I'm going to really rely on staff and check back as to how we can address the small business.

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I'd also like the staff to look at the technology review. Is three years really the right -- should we come back in two years? Is there really a difference in that 12 months? Could we have additional information?

I am delighted that Member De La Torre talked about the flexibility and the alternative compliance path. But if we can give more certainty and -- in a two-year review versus a three-year review, I do think that that would also be helpful.

And so with that, Madam Chair, I really appreciate the patience of all -- you know, my calculation is we had some, you know, short -- just short of a hundred people testifying. I appreciate them hanging in to the end of a long day and on a Friday. I appreciate my fellow Board members, but appreciate staff. And so I think we need to do actually more to communicate, because I think we have it closer than people think.

Thank you very much.

CHAIR RANDOLPH: Board Member Riordan.

BOARD MEMBER RIORDAN: Yes. Let me just build on that just a little bit. From this point to the time when we would hear this again, does the staff anticipate perhaps doing some sort of a Zoom conference or something, so that when you have maybe refined this regulation, that you have informed the stakeholders what it is that you are suggesting that's going to come before this Board. If there are adjustments made -- and hopefully there might be some, particularly following along Member Berg's suggestion. Do you anticipate some sort of a sharing of information?

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EXECUTIVE OFFICER COREY: Board Member Riordan, absolutely, in terms of -- we'll have to decide the -- kind of work through what the forum is, but in terms of reaching out to the stakeholders, many of which commented here in terms of some of the elements on the extension and streamlining the extension, the form of the tech review, the frequency, certainly posting some information in terms of the general approach, and can work through whether a webinar or some other forum is a good vehicle to get that information out, but touchpoints leading up to and prior to the follow-up Board hearing, yeah.

BOARD MEMBER RIORDAN: Thank you very much. I think that could be very helpful. And you would, I think, dispel some of the concern as people had very accurate

information, not something that's shared by somebody maybe three persons away, but just real information.

Thank you.

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CHAIR RANDOLPH: Dr. Balmes.

BOARD MEMBER BALMES: Thank you, Madam Chair.

I especially wanted to go after Ms. Riordan, because this takes me back to the heavy-duty bus and truck rule implementation. And while I'm the public health member of the Board and very much interested in equity environmental justice, I was struck by the testimony of one small truck owner after another talking about losing their family livelihood. And there's a -- there's a public health impact of that as well.

So this is a really difficult balancing act. Oh, and the reason I wanted to follow Ms. Riordan is when I was sort of supporting some special breaks for the small truck owners, Ms. Riordan said that she was proud of me because I did the right thing as opposed to being constantly, you know, always pushing public health over everything else.

But I don't think it's really -- it's not -there is a public health issue, which Kimberly brought up.
You know, when people lose their livelihood, when they
lose their work, they don't -- it's not good for their
health. So this is a difficult balancing act. I think

that, you know, the public health and climate change mitigation issues on one hand, and then there's the small boat owners going out of business on the other. We have to reduce diesel emissions for public health, especially for low-income communities of color that are already impacted by port related sources.

We have to move away from combustion of fossil fuels for climate change. There's a climate emergency as we all know. That said, I don't want to put people out of business, if we can avoid it. I support that targets of the proposed regulation, but we have to find a pathway forward to enable the small boat owners to comply. So I support the suggestions of Vice Chair Berg. And I think it's going to take a lot of money. I appreciate that Board Member De La Torre is ready to advocate for that at the Legislature. And, you know, that's what really was necessary to help the small truck owners comply with the Heavy-Duty Bus and Truck Rule.

So I think the incentive dollars have to be there. And maybe it's a good time to ask for that when we have a big budget surplus coming up here at the state.

So I'm going to be very interested to see what staff can come back with after Vice Chair Berg's suggestions that I support.

Thank you.

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CHAIR RANDOLPH: Dr. Pacheco-Werner.

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BOARD MEMBER PACHECO-WERNER: Thank you, Chair.

I definitely echo both of their comments. I think definitely understanding all of the safety aspects and having those written down will be important before the next time. I absolutely think that we need to be communicating to the small owners in a way in which will actually reach them. And so if posting something isn't enough to reach them, we need to actually try something else. And we need to do that outreach before, so that we know that they are really set up to succeed in complying with this, because that is what ultimately will help these front-line communities who need this change now.

And one of the things that I specifically wanted to support was that two years for the -- for the review, because as much certainty as we can provide to everyone, it will provide a clearer path from now to 2030, 2034.

So I do -- I do want to echo those concerns. And I -- and I hear the comments of the people that are living in those communities right now. And it is important that everybody hopefully listen to each others comments and understand that the air comments is all of ours, and that that is something that you cannot put a price on, which is a life. And we must measure that. We must take into account how to prioritize that always, and have that as

our North Star of how we do this.

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And I just wanted to tell everybody that commented and was waiting till nine a.m., I heard your comments, I read your comments, and we are making sure that we are doing all of our due diligence before this vote comes to us. And we'll be following up with all of our staff who I know are working very hard to get us much clarity and really setting a path for success for this regulation.

Thank you.

CHAIR RANDOLPH: Okay. Thank you.

That -- the -- what Dr. Balmes just raised about funding reminded me of the importance of the fact that not every boat operates in an area that has a district that has Carl Moyer funding. So to the extent that there are other additional funding programs that we can advocate for and see if we can find an opportunity, I think that's going to be a really important point.

Okay. So I will note that Supervisor Fletcher had to leave for a family obligation and he asked us to share his comments. So I'm going to read the comments. They're a little lengthy. Sorry. I'll try to -- I will let -- court reporter, I will give you this in writing, so I'm going to read it a little fast, and then you can -- then you can enter it into the record with the written

comments.

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Okay. Supervisor Fletcher says, "I apologize to the Board and interested parties for my absence at this point on this item. I had an unavoidable commitment that started before we arrived at Board member comments. I'll be watching the recording of the rest of the proceedings and appreciate sharing a few of my thoughts.

"I want to first start by thanking the public commenters and to the staff at CARB for their hard work to get us to this discussion. We know this regulation is vitally important for public health including for our AB 617 communities. As articulated in the staff presentation, some of the benefits from this rule include reduced cancer risk to over 22 million residents. The emission benefits would include an 89 percent reduction in diesel PM and a 54 percent reduction in NOx emissions. Many of the engines covered under this regulation are old and high emitting, and this regulation is important to achieve much needed emissions reductions.

"As a representative on this body from San Diego County, I have heard many concerns from

those in the Sportfishing industry and I would like to articulate some of the concerns I have heard that I believe are valid and need to be addressed before the final adoption of this regulation. San Diego is a hub for the Sportfishing industry, with around half of the state's boats headquartered in San Diego County. Many of this industry run family-owned businesses and have been operating the same reliable boats for many, many decades.

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"It is also common to have multiple generations of families operating these boats as a way of life and a love of the ocean, and it is not a lucrative industry generating significant operating profits.

"I have spent time with these operators both on their boats and in meetings around these issues and others. I know they are committed to improving our environment and I appreciate the valuable role they play. I have heard industry's concerns around costs associated with converting to Tier 4 engines and the need to replace entire boats in order to comply. The vast majority of these vessels are fiberglass hulls and it is not presently technologically

feasible to install a Tier 4 engine. They are almost all able to convert to Tier 3, but the reality is that almost the entirety of the fleet would have to be replaced with new steel hull boats to accommodate Tier 4.

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"Given many of these boats have a Useful life of up to a hundred years, complete conversion is not realistic. Additionally, there is an expectation, although not currently part of the framework, of going carbon neutral or zero emission by 2045. This is most likely going to be achieved via a ZEV engine that would need the lighter weight of a fiberglass hull. So we are headed down a path of requiring financially and practical complete replacement of the entire fleet to turn around and replace it in -- a few years later.

"I know we all care deeply about improving the environment. We need to better understand our long-term strategy as we transition to meet our carbon neutrality target.

"Additionally, many these boat operators are not equipped to comply with complex processes, or extensions, or exemption criteria. For those who are not accustomed to operating in this

environment, those requirements can be incredibly challenging. I would note that I believe any dedicated funding for incentive programs should be prioritized based on annual trips taken. The log book trip recording and reporting process is well established. Many of these boats take hundreds of trips a year. Some never leave the dock and serve more as misclassified housing or asset stocking. I believe we should have dedicated incentive funds for this fleet for whatever rule is adopted and make it available to the boats that operate the most.

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"I've heard from Catalina Express, which is a CPUC regulated ferry service to Catalina Island. This entity is required to provide daily service for teachers getting to work and for residents getting to their health care appointments, along with transitioning back and forth for other purposes. Retrofitting these ferries to the proposed standard would need heavier equipment, an estimated 15 tons on larger vessels that will reduce passenger capacity by half, thus requiring the ferries to run more frequently.

"I believe there are ways to move forward on a regulation that is public health protective,

but also encompasses the next -- necessary flexibility for actual compliance. I would like to look at lower tier for sportfishing vessels that may be more feasible for compliance than what is proposed.

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"Next, regarding incentives and funding, we should work with our partners in the Legislature to identify a dedicated pot of funding. This should be allocated to the vehicles that log the most miles. We should make it easy for entities to achieve compliance extension, recognizing the pandemic. I would be very supportive of instituting a technology review in 2025 that would assess retrofit options as well as provide an update of our understanding of zero-emission technology".

Okay. Thank you. That was from Supervisor Fletcher. All right. So I'm hearing some key themes at this point. Clarity of the extension process, as much simplification in the extension process, as much -- as many ways as we can reduce the cost of the extension process by doing some of that analysis ourselves, rather than having individual owners do it.

Moving forward, the technology assessment itself and thus providing a little more clarity in the shorter

term, looking at options for funding, those are all issues that were on the table. A few commenters also mentioned the concept of going to zero emissions sooner on tugs and other vessels, as a potential contingency measure in State Implementation Plans.

That's not something that needs to be in this regulatory package, because that relates to SIP compliance and the SIPs themselves, but that I think is something that we should also think about going forward.

Okay. Any other comments from Board members?
Board Member Kracov?

BOARD MEMBER KRACOV: Thank you, Chair.

What was the last thing you just said about the SIP? Whenever you say SIP, you know, from the South Coast, my ears --

(Laughter.)

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CHAIR RANDOLPH: So the -- so the concept is to the extent that State Implementation Plans for various measures include contingency measures that are not part of the main part of the SIP, can that be a signal to the market if we include contingency measures for moving zero emissions for other vehicles, like tugs, ferries, other vehicles, sooner, is that an opportunity?

BOARD MEMBER KRACOV: Thank you, Chair. That's an interesting proposal and would support staff looking at

that as well. I don't have much to add. You know, I feel a little bit like Supervisor Fletcher, on this one. We want to be fair and we want to give folks the time.

Looking at the presentation, it can go out to 2031, 2034.

We believe that the Tier 4 retrofits may require new vessels. But by 2031 and 2034, the technology may be in a different place than Tier 4. So I do think we have to do this in a smart way.

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I want to thank all of the commenters and all the folks that participated in our process. The Sportfisher Trade Association Mr. Franke, Ms. Kalez -- you know, I come from the trade association world. The members of that trade association are ably represented by that group. They really participated well. And I think going back to the education piece, that's what trade associations do. They educate their members. They work towards best practices. So to get the word out, I don't think we have to go much further than that group. They're well organized. They certainly have the attention of their members. And as we reach what I hope is a fair rule here, I think we have some great partners to make that happen.

I think the Chair distilled the issues down really well. I do want to see a demonstration that the extensions can be simplified. I think there was some cost in there, \$60,000 for the first extension. It sounds

pretty expensive. I don't know if that has to be each time they seek the extension, but want to talk about a simplification of the extension process.

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Very interested in the technology review. I think that is the place, Mr. Corey and staff, where we're going to be able to really assimilate this question of where is the technology, how does it fit in with the timelines, how do we ensure that folks aren't buying one vessel in propulsion technology only to have to go to a different one that's consistent with the Governor's vision for zero-emission technologies in 2040 and beyond. So I think the tech assessment is really important. I don't know when that should be. I agree we want to give certainty to folks with their investments.

But I think that's going to be hopefully a place that we can really see a meeting of the minds between all the parties. And I know Supervisor Fletcher has emphasized that as well.

The final thing I'll say is, you know, the issue of funding and working with the Legislature to pursue funding to support commercial passenger fishing vessels in early transition to the cleanest vessels available seems to be something important. Hopefully, we'll have, you know, some budget surplus to do that.

So probably just repeated all the things the

Chair said, interested in the SIP, contingency measure proposal as well, as a signal, because if we don't send the signals, just like with our heavy-duty fleet rules, you know, we're not sending the signals to the manufacturers to develop the technology. And we eventually do want to be at EVs for all of these sectors as well. So maybe the funding can help there too. So thanks for letting me chime in my two cents here at 7:20 at night.

CHAIR RANDOLPH: Board Member Takvorian.

BOARD MEMBER TAKVORIAN: And hopefully to

complete by 7:21.

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(Laughter.)

BOARD MEMBER TAKVORIAN: I would just like to add that I appreciate, Chair, your summary and agree with the points that you've made. I also appreciate everyone and I -- you know, my heart is breaking to hear -- I mean, I was raised in a family with a small businessman and to have the thought that you're going to lose your entire livelihood is heartbreaking. And I don't think that should happen to anyone. And I do think we have to improve communication and we have to be smart about how we do this.

I also want to say that in San Diego, tugboats and towboats are together the largest source of cargo

handle -- I'm sorry. Hello.

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(Laughter.)

BOARD MEMBER TAKVORIAN: -- commercial --

BOARD MEMBER KRACOV: CHC.

BOARD MEMBER TAKVORIAN: CHC, I'm sorry. I keep looking at it. They're the largest source -- commercial harbor craft. Thank you -- the largest source of diesel PM, 43 percent, and the largest source of NOx. And the only pier in Barrio Logan is a walking pier, not a fishing pier, because the bay is too polluted to fish in.

And it is located right next to the tugboat dock, which is oftentimes too polluted to walk on, because there's so much emission coming from the tugboats.

So this is a very tough decision and set of decisions that we need to make, but this is not good for anyone right now, and so we really need to address it. So I would really support -- I was -- I was promoting annual technology assessment and I'm hoping that we can do that. The technology is changing so quickly, that I think it's fair to everyone to continue to get that information, but I would defer to staff and just hope that we can do it as quickly as we possibly can, so that we can reach these decisions, because changing out -- as Supervisor Fletcher said, changing out a boat in order -- and then changing out again a few years later is just not possible, given

the cost of these. So that would be my request.

Thank you.

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CHAIR RANDOLPH: Okay. Oh, sorry, Board Member Hurt.

BOARD MEMBER HURT: So I just want to also just echo the thanks to the staff for the work on this regulation. I want to thank all the public commenters and the variety of stakeholders that have met with me and talked about how this regulation impacts your life and your families.

I'm very sympathetic to the impact of the changes. And I just want to echo some earlier comments about making sure we balance or, in my words, kind of thread the needle on this, especially in the wake of the pandemic on small business boat owners.

But I also want to uplift that we cannot forget about the negative impact to public health. It happens every day we wait in making changes in this industry.

There's definitely more work to be done when it comes to clarity and transparency. And I think, as I listen to those folks that commented from the public today, we have a really important role in educating what's available for them to take advantage of, and also hopefully uplift the incentives as well as how we can help them when it comes to finding money. I mean this is -- at

the end of the day, like how -- to Dr. Balmes' comment, how are we going to get the money that's going to be needed for these folks to continue doing the work that they've been doing for many, many years.

With that said, I think it's really important for communities of concern and disadvantaged communities that we move forward with some type of regulation. We heard from earlier commenters about AB 617 communities and ports. They absolutely depend on the transition of these commercial harbor crafts. There's evidence and technical analysis that show that the harbor crafts are big contributors to cancer risk.

So I also want to remind folks too that these highly impacted communities, not only have mobile source impacts, but they often have stationary source impacts as well. And so we must act. And I look forward to seeing where this regulation goes the next time it comes before us.

Thank you.

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CHAIR RANDOLPH: Okay. Any other comments?

All right. I think that is it for this agenda
item. So I already closed the record. And so we are all
good until the next time this comes before the Board.

Okay. We now will move on to open public comment. If you wish to provide a comment regarding an

item of interest within the jurisdiction of the Board that is not on today's agenda, please raise your a in Zoom or dial star nine if you are on the phone.

Board Clerk, will you please call the commenters?

BOARD CLERK ESTABROOK: Yes. Thank you. There
is currently a couple people with their hands raised to
speak.

Mike Carpenter and then phone numbering ending in 400.

Mike, I have activated your microphone, you may unmute and begin.

Mike, are you there?

2.2

Okay. Phone number ending in 400, please state your name for the record and then unmute yourself and begin. And you may need to dial star six to unmute.

KATHLEEN: This is Kathleen. I just wanted to -- BOARD CLERK ESTABROOK: Hi. We can hear you.

KATHLEEN: I just wanted to make sure that everybody understood that with sportfishing how important it is for the community. It was a lifesaver for me while I was going through high school. And it wasn't just sportfishing, but it was --

CHAIR RANDOLPH: Ma'am, that agenda item -- that agenda item has ended and so thank you for your comment.

BOARD CLERK ESTABROOK: And then Mark Ortega, do

you have a comment for open comment?

MARK ORTEGA: Yes. Can you hear me?

CHAIR RANDOLPH: Yes.

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Okay. Okay. Good. On the subject MARK ORTEGA: of these communities, that -- I've been here for quite Anyway on the subject of the communities that some time. are being affected in these -- in certain areas, and this is not about sportfishing boats. This is about the other vessels that come into these harbor. Is there any kind of -- I mean, these big containerships. And you -somebody mentioned tugs, and that is -- is there any way or, you know, something that people are looking at that, how long they're running, how long they're -- how long they're keeping their engines active when they are at anchor or in -- like, you know, being unloaded at these facilities. You know, what type of pollution is coming from them as opposed to the trucks in the ports and the --I mean, how can you guys tell? How is the science taking, okay, this boat is doing that, this truck is doing that, this vehicle is doing that, the sportsfishing is doing that? How can you tell what particulates and et cetera, NOx stuff is coming from these specific vehicle engines?

Thank you. That's just --

BOARD CLERK ESTABROOK: Thank you.

Chair, the concludes the commenters.

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CHAIR RANDOLPH: Thank you. This meeting of the
 1
    Air Resources Board is adjourned.
 2
              (Thereupon the Air Resources Board meeting
 3
              adjourned at 7:31 p.m.)
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CERTIFICATE OF REPORTER

3]

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 7th day of December, 2021.

James & Little

JAMES F. PETERS, CSR

Certified Shorthand Reporter

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