MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

ZOOM PLATFORM

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

BYRON SHER AUDITORIUM

1001 I STREET

SACRAMENTO, CALIFORNIA

THURSDAY, JUNE 9, 2022

9:04 A.M.

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

APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

Sandra Berg, Vice Chair

John Eisenhut

John Balmes, PhD

Hector De La Torre

John Eisenhut

Senator Dean Florez

Davina Hurt

Gideon Kracov

Tania Pacheco-Werner, PhD

Barbara Riordan

Dan Sperling, PhD

Diane Takvorian

STAFF:

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

Chanell Fletcher, Deputy Executive Officer, Environmental Justice

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

Edna Murphy, Deputy Executive Officer, Internal Operations

Rajinder Sahota, Deputy Executive Officer, Climate Change and Research

APPEARANCES CONTINUED

STAFF:

Craig Segall, Deputy Executive Officer, Mobile Sources and Incentives

Ellen Peter, Chief Counsel

Pippin Brehler, Senior Attorney, Legal Office

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

Jennifer Gress, PhD, Division Chief, STCD

Marko Jeftic, Air Resources Engineer, Low Emission Vehicle Regulations Section, STCD

Michael McCarthy, Vehicle Program Specialist, Emissions Control and Compliance Division (ECCD)

Shobna Sahni, Chief, New Vehicle/Engines Program Branch, ECCD

Marissa Williams, Manager, Light-Duty Vehicle Regulations Section, STCD

Anna Wong, Manager, ZEV Market Advancement Section, STCD

ALSO PRESENT:

Kevin Abernathy, Milk Producers Council

Meredith Alexander, The Climate Group - EV 100

Ruben Aronin, California Business Alliance for a Clean Economy

Sal Ayala, California Hispanic Chamber of Commerce

Daniel Barad, Sierra Club

David Barker, Subaru

APPEARANCES CONTINUED

ALSO PRESENT:

William Barrett, American Lung Association

Kalysta Barrios, Environment California

Thomas Becker

Julie Beer

Anthony Bento, New Car Dealers Association

Kathy Bergren, National Corn Growers Association

Chris Bliley, Growth Energy

Rasto Brezny, PhD, Manufacturers of Emissions Controls Association

Tatanka Chris Bricca, Circle of 100

Scott Brierley, Fermata Energy

Kevin Brown, Manufacturers of Emissions Controls Association

Tom Cackette, Environmental Defense Fund

Julian Canete, California Hispanic Chamber of Commerce

Andrea Cao, California Asian Pacific Chamber of Commerce

Sherry Chavarria, Dinuba Democratic Club

Michael Chiacos, Community Environmental Council

Jo Ann Consigliers, SB 1230, greencal.org, the Romero Institute, Circle of 100

Eileen Conway, Si Se Puede

Teresa Cooke, California Hydrogen Coalition

Kevin Curley, Mazda

APPEARANCES CONTINUED

ALSO PRESENT:

Laura Deehan, Environment California, Environment California Research and Policy Center

Steven Douglas, Alliance for Automotive Innovation

Jamie Dow

Allis Druffel, California Interfaith Power and Light

Sylvia Duarte, Antelope Valley Hispanic Chamber of Commerce

Katie Dykes, Commissioner, Connecticut Department of Energy and Environmental Protection

Tyson Eckerle, Deputy Director, Zero Emission Vehicle Market Development Go-Biz

James Fahy, Mercedes-Benz North America

Jack Lucero Fleck, 350 East Bay

Kim Floyd

Ysidro Garcia, Latin Business Association

Robert Graham, Strong Plug-In Hybrid Vehicle Coalition

Jenny Gilger, American Honda

Marcus Gomez, California Clothing Recyclers

Jess Gonzalez, Si Se Puede

Stephanie Hagiwara

Peg Hanna, Assistant Director of Air Monitoring and Mobile Sources, New Jersey Department of Environmental Protection

Heidi Harmon, Let's Green California!

Steven Henderson, Ford Motor Company

Kevin Hamilton, Central California Asthma Collaborative

APPEARANCES CONTINUED

ALSO PRESENT:

Scott Hochberg, Center for Biological Diversity

John Hoffman, Greater Arden Chamber of Commerce

Andrea Isood, Sierra Club

Dylan Jaff, Consumer Reports

Ben Keller, 350 Bay Area

Jim Kennedy, Healthy Air Alliance

Kathy Kerridge, 350 Bay Area

Doug Kessler, Si Se Puede

Estella Kessler, Si Se Puede

Ameen Khan, California Environmental Voters

Christine Kirby, Director, Air and Climate Division, Massachusetts Department of Environmental Protection

Neil Koehler, Renewable Fuels Association

Christopher LaLone, Director Division of Air Resources, New York State Department of Environmental Conservation

Amy Lilly, Mercedes-Benz

Katie Little, California Farm Bureau

Carol Loewenstein, Romero Institute, Let's Green California, Circle of 100

Michael Lord, Toyota Motor North America

Bill Magavern, Coalition for Clean Air

Emily Maravillo, Si Se Puede

Cristina Marquez, International Brotherhood of Electrical Workers, Local 569

APPEARANCES CONTINUED

ALSO PRESENT:

Timothy Marvillo, Si Se Puede

Emily McCabe, Environment California

James McFadden, GreenCal.org, Romero Institute

Ellen McClure, 350 Bay Area

Laurel Moorhead, Transfer Flow, Inc.

Joseph Mendelson, Tesla

Simon Mui, Natural Resources Defense Council

Jade Northrup, Pixar, Extinction Rebellion

Samantha Ortega, ChargerHelp!

Anne-Marie Otey, Los Angeles/Orange County Business Trades

Joe Partida, Oakland Chamber of Commerce

Roman Partida-Lopez, Greenlining Institute

David Patterson, CHAdeMO Association

Jeannine Pearce, Better World Group

Vicente Perez Martinez

Lori Pesante, Dolores Huerta Foundation

Greg Potter, Equipment and Tools Institute

David Reichmuth, PhD, Union of Concerned Scientists

Jim Relles, Relles Florist

Nick Ratto, 350 Bay Area Action

Erika Romero, Valley Clean Air Now

Leana Rosetti, Extinction Rebellion

APPEARANCES CONTINUED

ALSO PRESENT:

Mariela Ruacho, American Lung Association

Sasan Saadat, Earthjustice

Rachel Sakata, Senior Air Quality Planner, Oregon Department of Environmental Quality

Tony Shain, Extinction Rebellion, San Francisco

Chip Sharpe

John Shears, Center for Energy Efficiency and Renewable Technologies

Chuck Shulock, Natural Resources Defense Council

Megan Shumway, CHN, Climate Coalition, Sacramento 350

Peter Slowik, International Council on Clean Transportation

Carlos Solorzano, California Hispanic Chamber of Commerce

Sarah Somorai, Hyundai

Greg Spooner, Scientist Rebellion

Stephanie

Magali Torres, Merced Hispanic Chamber of Commerce

Eileen Tutt, California Electric Transportation Coalition

Tom Van Heeke, Rivian

Enrique Velez, Latin Business Association

Jim Verburg, Western States Petroleum Association

Tony Villegas, Si Se Puede

Matt Wait

Mike Williams, International Warehouse Logistics Association

APPEARANCES CONTINUED

ALSO PRESENT:

Justin Wilson, ChargePoint

Jeff Wuttke, Stellantis

Emma Yip, Center for Biological Diversity

Bob Yuhnke, Elders Climate Action

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PROCEEDINGS

CHAIR RANDOLPH: All right. Thank you. Good morning. The June 9th 2022 public meeting of the California Air Resources Board will come to

Board Clerk, will you please call the roll

BOARD CLERK GARCIA: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK GARCIA: Mr. De La Torre?

BOARD MEMBER DE LA TORRE: Here.

BOARD CLERK ESTABROOK: Mr. Eisenhut?

BOARD MEMBER EISENHUT: Here.

BOARD CLERK GARCIA: Senator Florez?

Assemblymember Garcia?

Ms. Hurt?

Mr. Kracov?

Senator Leyva?

Dr. Pacheco-Werner?

BOARD MEMBER PACHECO-WERNER: Here.

BOARD CLERK GARCIA: Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

BOARD CLERK GARCIA: Supervisor Serna?

Professor Sperling?

BOARD MEMBER SPERLING: Here.

BOARD CLERK GARCIA: Ms. Takvorian?

Supervisor Vargas?

Vice Chair Berg?

VICE CHAIR BERG: Here.

BOARD CLERK GARCIA: Chair Randolph?

CHAIR RANDOLPH: Here.

BOARD CLERK GARCIA: Madam Chair, we have a quorum.

CHAIR RANDOLPH: Thank you. We will begin with a few housekeeping items. We are conducting today's meeting in person as well as offering remote options for public participation both by phone and in Zoom. Anyone who wishes to testify on a Board item in person should fill out a request-to-speak card available in the foyer and turn it in to a Board assistant prior to the commencement of the item. If you are participating remotely, you will raise your hand in Zoom or dial star nine if calling in by phone. The clerk will provide further details regarding how public participation will work in a moment.

For safety reasons, please note the emergency exit to the rear of the room through the lobby. In the event of a fire alarm, we are required to evacuate this room immediately and go down the stairs to the left of the elevator and out of the building. When the all-clear signal is given, we will return to the hearing room and resume the hearing.

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. If are you joining us here in person and would like to listen to the meeting in Spanish, please notify a Board assistant and they will provide you with further instruction. I want to remind all of our speakers to speak slowly and pause intermittently to allow the interpreters the opportunity to accurately interpret your comments.

(Interpreter translated in Spanish.)

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

BOARD CLERK GARCIA: Thank you, Chair Randolph. Good morning, everyone. My name is Lindsay Garcia and I will be calling on the commenters who are joining us remotely and Katie Estabrook will be calling on commenters who have turned in a request-to-speak card and are joining us here in the room.

I will provide information on how public participation will be organized for those who are joining in Zoom or by calling in to today's meeting. If you are joining us remotely and wish to make a verbal comment on one of the Board items or during the open comment period at the end of today's meeting, you will need to be using Zoom webinar or calling in by telephone. If you are currently watching the webcast on CAL-SPAN, but you wish to comment remotely, please register for the Zoom webinar or call in. Information for both can be found on the public agenda for today's meeting.

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 speak. To do this, if you are using a computer or tablet, there is a raise hand button. If you are calling in on the telephone, dial star nine to raise your hand. Even if you've previously indicated which item you wish 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 and your chance to speak will not be skipped.

If you will be giving your 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 for the interpreter to translate your comment into English.

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 show a list of commenters. However, I will be announcing the next three or so commenters in the queue, so you are ready to testify and know who is coming up next. Please note, 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 especially important for those calling in by phone to testify on an item. We will have a time limit for each commenter. Per the Chair's direction, based on the commenters signed up for this item, we will begin the comment period with a two-minute time limit.

During public testimony, you will see a timer on the screen. For those calling in by phone, we will run the timer and let you know when you have 30 seconds left and when your time is up. If you require Spanish interpretation for your comment, your time will be doubled.

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 send those documents electronically. Comments will be accepted on each item until the Chair closes the record for that Board item.

If you experience any technical difficulties, please call (805)772-2715, so that an IT person can assist. This number is also noted on the public agenda.

Thank you. I'd like to turn the microphone back to Chair Randolph now.

CHAIR RANDOLPH: Thank you.

The only item on the agenda today is Item number 22-8-1, proposed Advanced Clean Cars II Regulation. If are you here with us in the room and wish to comment on this item, please fill out a request-to-speak card as soon as possible and submit it to a Board assistant. If you are joining us remotely and wish to comment on this item, please click the raise hand button or dial star nine now. We will call on both in-person and remote commenters when we get to the public comment portion of this item.

Today, the Board will hear staff's current proposal for Advanced Clean Cars II, the next iteration of our light-duty Advanced Clean Cars II. This the first of two hearings. And while the Board will not be voting on the final proposal today, we will be considering a proposed resolution regarding direction to staff.

Over the past three decades, the zero-emission vehicle regulations that CARB has adopted have acted as a catalyst, motivating manufacturers to both make internal combustion engine vehicles cleaner and to develop zero-emission technology.

We created our first ZEV standard in 1990 and the introduction of the first hybrid car soon followed, along with the introduction of plug-in hybrids. In 2012, Advanced Clean Cars I laid out the path to 10 percent of ZEV car sales by 2025, a goal we have already met and exceeded several years early, and spurred development of new zero-emission vehicle technology.

Now, we are going all the way to zero. Advanced Clean Cars II will build on this legacy by setting the course to 100 percent zero-emission vehicle sales, while ensuring that emissions from remaining internal combustion engine vehicles are rigorously controlled.

A clean transportation sector is essential to protect the health of both our communities and our climate. Mobile sources are the greatest contributor to emissions of criteria pollutants and greenhouse gases in California today, accounting for about 80 percent of smog-forming emissions and approximately 50 percent of statewide GHG emissions with fuel production and delivery included. It is essential that more stringent mobile source emission controls are put in place to help California achieve federal air quality standards and the State's greenhouse gas targets that will protect public health and mitigate the impacts of climate change.

The proposal we will hear today will implement the direction and vision Governor Newsom established in Executive Order N-79-20 by driving sales of ZEVs to 100 percent in California by 2035. The regulation is designed to ensure consumers can successfully replace their traditional combustion vehicles with newer used ZEVs and plug-in hybrids that both meet their transportation needs and protect the emission benefits of the program.

California's leadership in the ZEV marketplace has allowed the State to be an incubator for development of ZEV technology and a driver of electrification. Today, automakers have announced electrification plans far beyond what many of us would have imagined just a few years ago.

Much of the market growth of ZEVs is attributed to improvements in ZEV technology and vehicle products. The industry has rapidly responded to evolving market pressure, consumer demand, and regulatory requirements in California, partner states, and around the globe.

As California transitions to zero-emission transportation, it's critical that all Californians are able to access zero-emission vehicles. This regulation aims to embed equity and environmental justice more than we have ever done before. And to do so, it must ensure that communities disproportionately burdened by pollution feel the benefits of this transition to a clean transportation system. Therefore, the proposal seeks to establish new tools to improve access to zero-emission vehicles for low-income households and communities most impacted by pollution.

These are on top of billions of dollars in incentive spending to benefit these communities, including programs that expand our focus from zero-emission vehicles to mobility as a whole.

Finally, and most importantly, this proposal aims to benefit these communities and all Californians by further reducing smog-forming emissions from the combustion of fossil fuels.

This historic proposal is the culmination of over three years of technical analysis, policy development, and stakeholder engagement. Staff has held several public meetings and countless meetings with individual stakeholders, and as result, have made many modifications to bring the proposal to where it is today.

Many jurisdictions around the globe have set ambitious targets to phase out the sale of internal combustion cars over the next decade and a half. But it is one thing to state your ambition and a far more difficult endeavor to show how you will achieve it. California is one of only a handful of jurisdictions, perhaps the only one, to set out a legally binding and enforceable roadmap with annual requirements showing exactly how we get to zero year by year. And that is the regulation before us and I look forward to this discussion.

Mr. Segall, will you please introduce the item?

DEPUTY EXECUTIVE OFFICER SEGALL: Thank you, Chair Randolph. As you've said this is a momentous day. Staff's proposal, if subsequently approved by the Board, is intended to achieve 100 percent zero-emission vehicle sales by 2035. Is it among the very first legally blinding proposals of such in the world and it is a comprehensive proposal.

First, with the growing volume of ZEVs comes a growing need to ensure that these vehicles continue to satisfy the transportation needs of Californians and that they continue to provide emission benefits over their lifetimes. Staff's proposal includes new minimum technical requirements for ZEVs and a suite of ZEV assurance measures that would create minimum requirements for warranty, durability, serviceability, streamlined charging and battery labeling. These are critical tools to ensure durable, affordable ZEVs for -- are available for all communities and a chance for California to lead.

Staff is also proposing specific provisions to encourage manufacturers to take actions to improve access to ZEVs for disadvantaged, low-income, and other frontline communities, including investing in community car share programs, producing affordable vehicles, and keeping used vehicle here in California to support CARB's complementary equity incentive programs.

Next, staff is proposing to strengthen the low emission vehicle regulations, which apply to vehicles with conventional internal combustion engines, recognizing that the last -- that the last of these vehicles -- how amazing to get to say that -- the last of these vehicles will remain on the road well past 2035. These amendments tighten the standards for a broader array of operating conditions and help to prevent backsliding of individual vehicle emissions as the fleet comprises an increasing volume of ZEVs.

These proposed regulations build on decades of expertise at improving public health and reducing vehicle emissions and are the product of multiple years of technical staff work and public collaboration. Stakeholder engagement, including four public workshops, one public listening session, and numerous, numerous individual or work group meetings with stakeholders were crucial components of designing the proposal you'll hear today, and is a continuing endeavor. You'll hear from some of our collaborators in other states as well today.

In deed, as a result of this collaboration and input, staff will presenting 15-day changes to address comments raised during the 45-day comment period. We will return to the Board later this summer with our final proposal for your consideration. And I want to just take a second to thank the staff for hard enduring work on all of this.

And with that, I will now turn to them. I will now ask Anna Wong and Marko Jeftic of the Sustainable Transportation and Communities Division to begin the staff presentation.

Anna.

(Thereupon a slide presentation.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Thank you, Craig.

Good morning Chair Randolph and members of the

Board. I am and my colleague Marko Jeftic are so pleased to be able to present today staff's Advanced Clean Cars II proposal to you all.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Today, we will be sharing our proposal for the Advanced Clean Cars II regulation. This is the first of two hearings on the proposal. While the Board will not be voting on the proposal today, we are recommending approval of a resolution that directs next steps.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: This proposal aims to transform the fleet in the following ways.

First, by tightening the stringency of the ZEV, zero-emission vehicle, regulation, we will be maximizing the sale of ZEVs. In addition to the quantity of ZEVs, the quality of ZEVs, both when the vehicle is new and when it's used will also be key to a growing market. A suite of provisions are included to ensure that future ZEVs are high quality enough for consumers to replace their combustion vehicle and therefore to ensure lasting emission benefits from the regulation.

Consumers in low-income and underserved communities, where used vehicle sales are significant, will benefit from these assurance measures meant to ensure better range and serviceability throughout the vehicle's life.

Finally, the proposal amendments to the low-emission vehicle, or LEV, regulation will continue to clean up conventional internal combustion vehicles to reduce exposure to vehicle pollution. Overall, staff's proposal will provide the greatest benefit to frontline communities nearest to roadways by controlling and then eliminating tailpipe emissions from new passenger vehicles.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

Staff have engaged in an extensive public process in developing the proposed ACC II regulations. Staff sought input from public workshops, stakeholder working groups, informal meetings, and phone calls, and a community listening session. Staff conducted meetings with automakers and component suppliers, community-based organizations, and other interested stakeholders. Staff also met with more than 30 national State and local environmental and equity advocacy organizations to learn more about the recommendation -- recommendations these groups had regarding staff's proposals and how transportation electrification could be made more equitable.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Let's move into staff's proposal. Starting at the base of this triangle of our ACC II proposal, maximizing ZEV sales serves as the foundation for achieving California's climate, air quality, and equity goals.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Staff is proposing strong annual sales requirements, as shown on this slide, for the 2026 and subsequent model years. These percentage requirements for the sale of ZEVs and plug-in hybrids have increased from staff's initial proposal last May due to new automaker projections even greater than what Advanced Clean Cars would require if the proposal were not approved.

These percentage -- percentages keep automakers on a stringent but achievable path to 100 percent requirement not only in California, but in the states that choose to follow California's regulation, while building in appropriate flexibilities along the way. In adopting staff's proposal, California would be the first and largest vehicle market to require 1000 percent electric vehicle sales anywhere in the world.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: The proposed ZEV requirement builds on the momentum that started with Advanced Clean Cars. When the Board adopted Advanced Clean Cars in 20 -- in 2012, there were fewer than five electric vehicle models available for sale in California. Now, there are over 70 models available and more than one million ZEVs and plug-in hybrids have been sold in California, leading the United States in ZEV sales. Sales in 2022 are remaining strong and growing at 16 percent ZEVs and plug-in hybrid sales through March of this year.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Automakers representing the majority of California's vehicle market have made significant financial commitments to electrification announcing targets for 50 to 100 percent ZEV sales as soon as the 2028 model year. As shown on this slide, these announcements have been further supported in automaker confidential projections submitted to CARB, which show market growth in ZEVs and plug-in hybrids beyond 30 percent by 2025.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

A growing number of states representing nearly 40 percent of the U.S. new vehicle market have adopted California's Advanced Clean Cars regulations and have made statewide electrification commitments. We will be hearing from some of these states known as the Section 177 states in a few minutes.

In addition to these states, we hope our ACC II proposal will continue to drive strong federal action. And let us not forget not all -- not all automakers just produce vehicles for the U.S. market. Jurisdictions around the world are adopting aggressive new policies.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: This grow -- growth is due in part to falling costs as economies of scale drive down electric vehicle prices. This has enabled automakers to accelerate plans to bring to market more highly capable ZEVs and plug-in hybrids in more market segments. This slide shows cost modeling staff has done on a 300-mile battery electric vehicle compared to it's gasoline counterpart.

Depending on the vehicle type, staff's analysis shows little to no cost difference between a 300-mile batter electric vehicle and its gasoline counterpart in most vehicles segments and the 2030 time frame. Lower range battery elect vehicles would see cost parity even;

sooner.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

I'm now going to take a deeper dive into the design of the regulation. One lesson we have learned in the 30-year history of implementing the ZEV regulation is that the fundamental design and credit structure matter. As ZEV technologies and the market develop more rapidly than originally expected, past ZEV regulation credit structures have resulted in most automakers readily exceeding the ZEV requirements and are currently carrying forward a significant surplus of credits.

For ACC II, we've started with the end in mind, with the main tenet being volume certainty, achieving 100 percent zero-emission and plug-in hybrid vehicles. Staff is proposing to simplify the structure, one credit, which we're now calling value, for one vehicle. In addition to simple crediting, staff is proposing to limit the life of surplus values and rules that will count current model years ZEV and plug-in hybrid production before considering any extra values in the bank. In this manner, automakers are more limited in their ability to create stockpiles of credits to stave off future requirements.

Lastly, staff is proposing mechanisms that not only allow for automaker banking, trading, and deficits, but encourage early or direct action that would benefit the transition to 100 percent, including action in overburdened communities.

The next two slides will explore the proposed mechanisms in detail.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: The first mechanism I will talk about concerns environmental justice values, which are available in the first half of the proposed regulation. The intent of these values is to encourage automakers to help increase affordable access and exposure to ZEVs for priority communities, and financial assistance programs.

Option 1 awards automakers additional vehicle values for each new ZEV or plug-in hybrid sold at a 25 percent discount to qualifying, community-based, clean mobility programs. Two programs currently available, which aim to improve access to ZEVs in California, are the Clean Mobility Options, or CMO, Pilot Program and Sustainable Transportation Equity Project, or STEP.

Option 2 could help increase affordable access to ZEVs and plug-in hybrids by providing an incentive for automakers to offer lower priced vehicles, about $20,000 for a passenger car and $27,000 for a light truck. This is especially important in early -- in the earlier years of the proposed ACC II ZEV regulation when battery -- battery costs are higher.

Option 3 aims to increase the supply of off-lease ZEVs and plug-in hybrids to dealerships participating in California's financial assistance programs, meaning the Clean Cars 4 All Program and the Financing Assistance for Lower Income Consumers Project.

Staff met with implementers of current Clean Cars 4 All Program who indicated low volumes as one of their highest concerns when it comes to successful implementation of their program.

Though we believe the new ZEV stringency, which is -- increases overall volumes solves much of this problem, additional value for off-lease ZEVs and plug-in hybrids being delivered to participating dealerships will further enhance it -- availability.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: The next mechanisms are intended to also encourage early action, but also create various realistic compliance pathways in California and the states adopting Advanced Clean Cars II starting as soon as possible.

The first rewards manufacturers building ZEV markets in large volumes prior to 2026 model year. This mechanism is designed to reward progress in states still coming up to speed or accelerated progress in more developed markets, while not diluting overall regulatory requirements.

The second mechanism allows automakers to pool their overcompliant ACC II values across California and states that have adopted California's ZEV regulation, helping to smooth out state-to-state market fluctuations.

The third mechanism rewards Advanced Clean Cars I overcompliance while emphasizing continued ZEV -- continuing ZEV and plug-in hybrid sales. This will allow automakers to carry Advanced Clean Cars I credits into the Advanced Clean Cars II ZEV regulation to use towards 15 percent of their annual requirement through the 2030 model year in years where manufacturers have not met requirements with a sufficient number of actual vehicles.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Now, I'm going to move to the next set of rules, which affects the vehicles themselves. These are measures -- these measure were developed in recognition that consumers are an integral -- are integral to this puzzle to get to 100 percent electric vehicles.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Even with good regulation design, the transition to 100 percent will depend on every car buyer embracing electric vehicles, even the most reluctant. Research shows there's still concern over vehicle range, long charging times, and the need for frequent charging. Surveys show many respondents desire for electric range on a future vehicle to be more than 300 miles. Also, many car buyers report public charging to be insufficient and that they will have no where to charge at home. In fact, lack of Level 2 charging at home causes both frustration for current owners and is an overall barrier to electric vehicle uptake.

Consumers are also deterred by the higher price -- purchase price, and the lack of electric vehicle models available in segments they care most about. There's uncertainty over depreciation, as well as battery life, and mechanic availability to repair and service electric vehicles. Lastly, many car buyers are not fully aware of the attributes of electric vehicles to feel comfortable making the switch. Left unresolved, these barriers have the potential to hinder the transition to California's electric future.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

In recognition of this, the following proposals are intended to address consumer concerns helping them replace a gasoline vehicle with an electric vehicle. First, staff is proposing a minimum electric label range of 150 miles when the vehicle is new. While we expect mot automakers will be -- will continue to offer vehicles far above the 150 miles of range as they are today, minimum range requirements are important to ensure lower cost vehicles are able to meet the daily driving needs of a typical driver.

But we can't just think about the vehicle when it's new. Therefore, staff is proposing a durability requirement to ensure as least 80 percent of the original range of the vehicle is maintained over 10 years. In the first five years, we're propose -- proposing to reduce this requirement to 75 percent, in recognition of products that have already been designed and ongoing supply contracts.

Many automakers are already making vehicles today that meet or exceed this 80 percent durability requirement, but a 75 percent threshold in the early years will help more automakers transition in to these requirements. To give you a sense of how these two requirements work together, 150-mile battery electric vehicle at 10 years would still have over 100 miles of electric range.

In addition to the durability requirement, staff is proposing minimum battery and propulsion-related warranty requirements. Staff is proposing to align with where most of the industry currently is and require a minimum 8-year, 100,000 my battery warranty. However, battery state of health will also be required to be disclosed to the driver and Linked to this warranty increasing the transparency to the driver.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

Without access to quick and reliable charging, consumers will remain hesitant to ZEV technology. This is especially true for lower income car buyers and those living in multi-unit or rental housing, since they may be more reliant on public charging, which is generally more expensive, less reliable, and less conveniently located.

Staff is proposing to require electric -- electric vehicles to come equipped with a highly capable charge cord. By requiring all vehicles to have an included charge cord that is least Level 1 and Level 2 capable, the cord can meet the charging needs of a much larger portion of vehicle owners, as vehicle ranges grow and buyer demographics move away from single family home dwellers. This is particularly important for residents who do not -- who have not installed a home charger, but may still have access to a basic 110 or 220 outlet.

However, not everyone will access -- have access to overnight charging. In the future, a growing market of drivers may be more reliant on public DC fast charging. Because -- because of all of this, all battery electric vehicles will be required to be fast charge capable. And those vehicles with fast charging ability will need to conform to one fast charging inlet standard, the SAE J1772 combined -- combined charging standard. This standard reflects the inlet available on the majority of ZEV models available today.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Access to data has been an important cornerstone of CARB regulations. Prospective drivers, especially in the used vehicle market, should have the ability to evaluate the state -- state of the vehicle and the health of the bat -- battery.

Repair technicians, particularly independent technicians, need to be able to access vehicle data, diagnostic tools, and automaker developed diagnostic and repair information to assess the vehicle's need for repair and carry out those repairs appropriately. Staff's proposed data standardization and disclosure requirements will enable these data to become accessible on all ZEVs.

Though it is expected that ZEVs will likely need fewer propulsion-related repairs than gasoline vehicles, the sheer number of vehicles in California require a substantial repair network outside of dealerships. Therefore, as we currently require for all internal combustion engine vehicles, staff proposes to require automakers to disclose all propulsion-related repair information to independent repair shops, where most people get their vehicles repaired.

Finally, batter labeling will be required for all vehicles with a large battery on board, which includes convectional hybrids, plug-in hybrids, and ZEVs. Battery labeling can also support greater battery use and recycling, helping to promote battery material at a lower cost and with the reduced need for obtaining new raw materials.

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STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: In light of a hundred percent standard by 2035, staff believes that plug-in hybrid electric vehicles will still play a role in a developing ZEV market. Plug-in hybrid electric vehicles may also remain a critical choice for low-income drivers as well as evidence and data from the Clean Cars For All Program.

Participants in that program swapped out older vehicles for a plug-in hybrid at four times the rate that they did for a battery electric vehicle. However, GHG reduction targets and ambient air quality standards require CARB to balance the risks and emissions from gasoline usage in plug-in hybrid electric vehicles.

Therefore, staff is proposing a minimum of 50 miles of electric range for a plug-in hybrid with a short phase-out of plug-in hybrid electric vehicles with less than 50 miles range in the first few years to ensure most consumers can drive their daily commute on electric.

In addition, staff is prosing a cap, such that an automaker may not use plug-in hybrids to meet more than 20 percent of its compliance obligation in any year.

With that, I'll turn it over to Marko Jeftic who will summarize our proposal to reduce emission from internal combustion engine vehicles.

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STCD AIR RESOURCES ENGINEER JEFTIC: Thank you, Anna. The final component of the Advanced Clean Cars II proposal consists of the LEV regulations that will continue emission reductions from combustion engine vehicles.

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STCD AIR RESOURCES ENGINEER JEFTIC: Reducing emissions from internal combustion engine, or ICE, vehicles remains an important challenge in meeting federal air quality requirements and climate goals.

In the near term, ICEs are still expected to make up a large share of new vehicle sales. And once sold, they can remain on the road for many years. In fact, our projections show that they will make up a significant portion of the statewide fleet even beyond 2035. As a result, it is critical to continue reducing emissions from combustion engine vehicles.

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STCD AIR RESOURCES ENGINEER JEFTIC: As a part of ACC II, the proposed LEV regulations will aim to reduce emissions from combustion vehicles by increasing the stringency of the existing standards and adding new requirements that will help control emissions over a wider variety of operating conditions.

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STCD AIR RESOURCES ENGINEER JEFTIC: First, let's begin with the changes to the NMOG plus NOx fleet average standards. Under current rules, automakers are allowed to use zero-emission vehicles to comply with the NMOG plus NOx fleet average standards. As ZEV sales are expected to substantially increase beyond 2025, continuing to include ZEVs in the fleet average could potentially result in a very large reduction in emission requirements for ICE vehicles.

Therefore, to ensure combustion vehicles remain clean, staff's proposal will gradually phase out ZEVs from the fleet average by the 2029 model year. In addition, staff is also proposing to eliminate the dirtiest emission certification bins. This will reduce the maximum allowed emission levels from ICEs from 160 to 70 milligrams per mile.

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STCD AIR RESOURCES ENGINEER JEFTIC: Next, let's go over our plans to improve real-world emission control during aggressive driving and cold starts. For NMOG plus NOx, current rules allow automakers to certify aggressive driving emissions, such as those during high speed driving on freeways, by averaging them with urban driving emissions that occur at much lower speeds on city streets. However, staff found that the averaging approach allowed a small portion of the fleet to have poor emission control during aggressive driving, with emissions that were disproportionately higher compared to urban driving.

Therefore, the ACC II proposal will eliminate the averaging method and instead require all vehicles to meet aggressive driving emission standards that are equivalent to the urban driving standards. And for particulate matter emissions, staff's proposal will reduce the PM standard for the aggressive driving test cycle from 6 to 3 milligrams per mile. The proposed standard is based on certification data that shows a large majority of vehicles can already emit below 3 milligrams per mile.

As for cold starts, which typically exhibit a spike of emissions at the start of a trip when the engine and emission control devices are still cold, staff identified three areas where emission control can be improved. First, staff found that vehicle cool downs between trips can affect cold-start emissions with the highest emissions occurring for cool downs of 30 minutes to 3 hours, where as current standards only regulate cool downs of 12 hours or more.

Therefore, staff is proposing new standards that will control cold-start emissions for any cool down of 10 minutes or longer. Second in-use data found that 60 percent of real-world trips had an earlier drive-away than current certification tests. And test data showed that early drive-aways resulted in higher cold-start emissions for all vehicles. As a result, staff's proposal includes new tests and standards that will reduce emissions from early drive-aways.

And third, many plug-in hybrids can have a big burst of cold-start emissions if the transition from electric driving to combustion engine driving occurs under high power conditions, such as accelerating on a freeway on-ramp. To address this issue, staff have developed new high-power, cold-start emission standards based on the best performing plug-in hybrids.

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STCD AIR RESOURCES ENGINEER JEFTIC: Next, I will present two changes we are making to the evaporative emission standards. The first proposed change will tighten the standard from 0.05 to 0.01 grams per mile for running loss emissions, which occur when fuel vapors escape from the fuel system while the vehicle is driven.

The aim of this proposal is to clean up the highest emitting vehicles and to make sure that good designs remain the norm. The second change is to ensure the vehicle's evaporative control system is properly sized to contain puff emissions, which can occur if the fuel vapor canister is overwhelmed during a sequence of driving and refueling on a hot day. To help contain puff emissions, staff's proposal will add a new minimum size requirement for the canister.

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STCD AIR RESOURCES ENGINEER JEFTIC: We are also making updates to our regulations for medium-duty vehicles, such as large pickup trucks and delivery vans.

First, the proposal will tighten the fleet average requirements for NMOG plus NOx emissions for both

Class 2b and Class 3 medium-duty vehicles. And similar to the light-duty fleet average, zero-emission vehicles will be removed from the fleet average and dirtiest emission bins will be eliminated.

Second, the proposal will add new stand-alone standards to better control NMOG plus NOx emissions under aggressive driving conditions and will also tighten the PM emission standard for aggressive driving for all medium-duty vehicles.

Finally, many medium-duty vehicles are used for towing applications, but staff's testing found that towing operations was not represented well by current certification tests. Therefore, the proposal will adopt new on-road test requirements that are equivalent to the rules recently adopted in the Heavy-Duty Omnibus Regulation. The new on-road testing will apply to all Class 2b and Class 3 vehicles that have a gross combined weight rating of 14,000 pounds or more.

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STCD AIR RESOURCES ENGINEER JEFTIC: Now, let's discuss the impacts and benefits of all the proposed ACC II regulations.

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STCD AIR RESOURCES ENGINEER JEFTIC: The direct costs for the proposed ACC II regulations are projected to be $212 billion in total between 2026 and 2040. This includes over $40 billion from increased incremental costs of ZEVs and home chargers, and increased costs for electricity, sales tax, vehicle registration fees, and insurance. Since automakers will need to sell ZEVs and plug-in hybrids in all vehicle segments, including larger passenger trucks, the proposed regulations have the effect of increasing the fleet-wide average vehicle price. In 2062, staff estimate the average incremental price increase will be $500 across the industry, and by 2035, it will be $1,100.

While the proposed -- while the proposal increases some costs, staff estimate an overall cost savings. The direct savings of the regulations are projected to be $294 billion over the same time period. This includes savings from less gasoline purchased, lower vehicle maintenance costs, and use of vehicle-to-grid services. The result, the total net savings from the regulation are projected to be $81.8 billion statewide. Note, this number does not include the cost benefits from improved public health or the social cost of carbon. If these benefits were also included, the cost savings would be much higher.

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STCD AIR RESOURCES ENGINEER JEFTIC: For further context, this slide shows one prominent example of how much money a consumer could save by purchasing a ZEV instead of an ICE passenger car. In this example, a 300 mile range BEV owner without a home charger would save over $3,000 over a 10-year period for a 2026 model year vehicle, and over $7,000 for a 2035 model year vehicle.

These net savings represent the total cost of ownership and include the incremental price of the vehicle, fuel costs, registration costs, maintenance and other factors. If the owner had access to vehicle charging at home, staff projects bigger savings, because electricity prices tend to be lower at home.

For this analysis, vehicle purchase incentives were not included, given the uncertainty that public funds will be available in the future. But if drivers do have access to incentives, their savings would be even larger than shown here.

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STCD AIR RESOURCES ENGINEER JEFTIC: Let's take a look at how the ZEV and LEV proposals add up in terms of emission reductions. Shown here are projections of well-to-wheel NOx and greenhouse gas emissions from 2026 to 2040.

As shown in the figures, ACC II is expected to reduce light-duty NOx emissions by 26 percent in 2037, which will be vital to the attainment of the 70 parts per billion ozone standard. These NOx reductions are also important to mitigate the public health impacts from regional ozone, which are especially troublesome for lower income communities.

ACC II regulations are also expected to reduce GHG emissions from the light-duty vehicle sector by 50 percent in 2040, which will be essential for helping the State achieve its 2045 carbon neutrality goal. In absolute terms, the total GHG emission reductions from 2026 to 2040 are projected to be 383 million metric tons. This large reduction will be important to slow the effects of climate change. ACC II is also projected to have reductions in PM2.5 emissions, though the scale of PM2.5 emissions from light-duty gasoline vehicles is very small compared to other sectors.

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STCD AIR RESOURCES ENGINEER JEFTIC: In addition to the emission benefits, ACC II regulations are also expected to substantially reduce statewide consumption of gasoline and ethanol fuels. With the transition to ZEVs, the light-duty fleet is projected to consume 63 percent less gasoline in 2040 compared to business-as-usual projections without the proposed regulations.

A shift to electricity and hydrogen fuels will also protect consumers from impacts of volatile price fluctuations at the pump. Gasoline prices in staff's total cost analysis are based on CEC's most recent projections, which were $3.92 per gallon in 2026 rising to $4.34 per gallon by 2035.

Consumer cost savings would have been even larger had we used prices as seen at the pump today. The volatility in gasoline prices is caused in part by the global nature of oil supply. Electricity and hydrogen by contrast will be predominantly produced in California. And although electricity prices are expected to rise over time, they are projected to be much more stable and predictable than oil prices.

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STCD AIR RESOURCES ENGINEER JEFTIC: Since the release of the staff report in April, staff has continued to address stakeholder feedback from the original proposal. Available on our program webpage and in the back of the hearing room, staff is proposing several changes that reflect continued work with stakeholders.

These changes include updates to ZEV assurance measures, such as temporary relief for the new ZEV range durability standard, release updates to data and in-use procedures, and updated warranty claim levels.

Additionally, staff has worked with automakers to establish a cap for ACC 1 ZEV credits, add incentives for fuel cell vehicles delivered through 2030, and include the option to count medium-duty ZEVs.

Lastly, staff is proposing to further clean up the regulatory text to improve readability and clarify issues raised by stakeholders over the 45-day comment period.

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STCD AIR RESOURCES ENGINEER JEFTIC: In accordance with California Environmental Quality Act, or CEQA, guidelines, staff prepared a Draft Environmental Analysis for the proposed regulations. The draft analysis was released for a 45-day comment period, and next, staff will be preparing responses to comments received. Staff will present to the Board the written response to comments and the Final Environmental Analysis later this summer.

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STCD AIR RESOURCES ENGINEER JEFTIC: While the Board is not voting on the proposal today, staff recommends that the Board adopt the resolution to move forward with the proposed modifications presented here and return to the Board after the proposed modifications have been released for a 15-day public comment period, and the Final Environmental Analysis is complete. We are currently expecting to return in August when you will vote on the proposed regulations.

I would now like to turn it over to Tyson Eckerle, Deputy Director for zero-emission vehicle market development at the Governor's Office of Business and Economic Development who will outline California's broader strategy for achieving 100 percent ZEV sales.

Tyson.

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TYSON ECKERLE: Great. Well, thank you very much and thanks, Board, for having me. It's great to be back here. I've presented a few times on the ZEV market development strategy. I'm not going to go into too much detail today, but kind of give you just a high level view. And last April, in fact, we went into a deep dive in infrastructure, which is absolutely critical to enabling the ZEV market, so I won't rehash that.

And today's time, I really just want to give a flavor for the work that we're doing as a collective group of agencies to help enable the market. And I wanted to start by stating the obvious. I think CARB and the CARB regulations and regulatory framework are the star of the show. I think it's the reason we have a market, plain and simple.

The regulations and investments you've made over the years have made this whole thing possible. And it's very clear that regulatory certainty drives investment, creates market opportunities. And so I can't underscore the importance of what you're considering today and in the future.

And, you know, just kind of sitting here thinking about what kind of an analogy could be used. But if you think about the State, and, you know, we're -- as a garden, you know, really the -- the CARB's regulations and the regulations developed by this body really are fertile soil of the market. And then you have, you know, vehicles -- vehicle incentives, the low carbon fuel standard that's kind of the rain. CEC and the utility investments are the seeds. And -- but really, if you take that analogy, all of us in the State are gardeners. And our job really is to kind of -- to grow the thing, to pull out the weeds and create new markets for the vegetables that are created. I was trying to figure out the best way to fit industry into that analogy.

They're kind of all those things too. And so is NGOs and everything, but it is kind of -- it takes all of us to make this happen. And if there's one thing that's really clear is that we can't do this alone. And so if you go to the next slide --

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TYSON ECKERLE: -- you've seen this before. You know, it's the ZEV strategy overview. And, you know, the whole premise of the ZEV market development strategy is organizing stakeholders around a collective framework. And so we need all of us gardeners to be working together. And, you know, so we're organized around the four pillars of the market. You have vehicles, infrastructure, end users and workforce. And this -- in 2021, we put a lot of focus on infrastructure and that will continue.

Going forward into 2022, we are really diving deep into end users and workforce in particular, because the -- those are the areas that we think need a lot of focus going forward.

I want -- go to the next slide.

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TYSON ECKERLE: You know, there -- we have 29 agencies in the ZEV market development framework. We're adding more each day -- well, not -- that's -- that's an overstatement, but we're add -- we are adding agencies. You'd run out pretty quickly if we're doing it each day. So but just yesterday, for example, we're talking with State Parks about, you know, electrifying the -- a bunch of their properties as much as possible, and creating access, and figuring out what we can do as a state to make it more simple for a private market to come in and invest there.

So each agency, as you know, submits action plans every year. And so I was just going to go, you know, kind of some of the highlights that happened in 2012 and then what we're looking forward to in 2022.

If you go to the next slide --

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TYSON ECKERLE: -- I'm not going to read all of these off, but, you know, most of vehicle action is through the Air Resources Boar, the regulations that you've done, but you also have stuff like Caltrans purchasing 15 electric sweepers -- sweeper trucks. We have the draft battery recycling report that was released in 2021.

On the infrastructure side, we're making really good progress on permit streamlining. It's a slow slog, but it's a -- it's a continual. We just passed 200 streamlined cities and counties yesterday -- or actually we're at 201 now, which is pretty exciting. And Caltrans and DGS have been making big investments in charging infrastructure. You see that close to 700 ports that Caltrans has been installed. I think the -- you know, it's important to point -- to point out the building codes.

So all of these takes collective action and all of this is -- CARB staff, in particular, plays a huge role in helping make a lot of things happen, building codes in partic -- in particular.

If you go to the next slide --

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TYSON ECKERLE: -- just on the end user piece, you know, we have our consumer awareness grant. And it -- and so that we've very excited about that -- that happening. We have the ZEV strategy, which feels like more than a year ago, but that was just February 2021. You know, this -- big things happen, like with the ratepayers paying the cost of EV service extensions separately metered. That's a big, big deal in terms of creating market certainty. If you're going to put charging infrastructure in that you can -- that the utility will be able to bring that.

Then on the workforce side, we're really getting a lot of focus. We were just meeting with the labor agency yesterday, but there's a lot of excitement among workforce, so we -- because we are the number one manufacturing state in the country right now for zero-emission vehicles. And a lot of that is because of our workforce. And so we're trying to amplify that. You know, they have that first two cohorts of the High Road Training Partnerships that were done last year. The Energy Commission has their workforce pilot solicitation that's coming out.

And so that's just a little bit of the flavor kind of organized around that four pillars. We have our ZEV market development statistics and market report. I did -- didn't go over that this time, but I showcased it a little bit last time. There's, you know, a lot of great stuff happening.

Then if you go to the next slide --

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TYSON ECKERLE: -- just kind of looking forward. I did want to spend just little bit time -- of time on the end user. You know that first bullet, we're talking about ZEV readiness. Like if you really summarized it, we're just trying to make it easier for local leaders to participate and contribute to the market by, you know, connecting them through. So the permit streamlining, we have a map, but we can also do that with -- and we're working with the Energy Commission in particular on building code and reach code adoption. Streamlining the energization process has become a big thing, once -- you know, once we figured out permit streamlining a little bit better. The connection to the grid, we're trying to create more predictability there. And the Public Utilities Commission has an ongoing process that the utilities are submitting to, where we should have more defined timelines there.

The reliability, I think we're hearing about that a lot for both charging and hydrogen fueling infrastructure, and acces. You know, organizing around making it easier for consumers, so that when they go there, it will be simple, they get charged and fueled.

Alignment of funding opportunities and fleets and procurement support, we're really trying to make it easier for fleet operators and businesses to get into the market. I think the funding opportunities -- you know, just the fact that the Energy Commission and the Air Resources Board are doing joint budget change proposals at 10 billion in the Governor's proposed budget shows how we're trying to pull those pieces together. So if you look at HVIP and the EnergIIZE programs, we're trying to make it as simple as possible for fleets to get into the deal.

And then, you know, we're very excited about that consumer awareness funding. And it's really about raising awareness, but also increasing market confidence. You know, it's that idea of getting neighbor to neighbor.

And so with that, you know, we're very excited about the year ahead, but really what underpins everything is the regulation, and the regulatory environment, and everything that -- and the innovation that that drives. And we're excited about the staff proposal, especially as you look at the equity layers that have gone on and that's kind of -- that's the first principle in our ZEV market development strategy.

And so definitely happy to talk with any of you anytime to help talk about all the other stuff that's happening at State agencies, but appreciate your time and attention on this.

And with that, I wanted to hand it over to Connecticut with Katie Dykes.

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KATIE DYKES: Great. Well, good afternoon, and thank you so much for the opportunity to testify today. My name is Katie Dykes and I'm joining this hearing remotely from here in Hartford, Connecticut. I serve as the Commissioner of the Connecticut Department of Energy and Environmental Protection. I'm joined today by colleagues from Massachusetts, from New Jersey, New York, and Oregon to express our state's strong support for ACC II and LEV IV.

The number of Section 177 states has grown from 11 to 17 over the past two years, as California, Minnesota, Nevada, New Mexico, Virginia, and Washington have moved to adopt California's tailpipe emission standards. This is an exciting development that has further strengthened the geographic diversity of Section

177 states and sent strong signals to the EV market as the Section 177 ZEV states now represent 25 percent of the U.S. light-duty new car sales market.

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KATIE DYKES: ACC II is a critically important climate and air quality strategy in the Section 177 states. Like California, the Section 177 states have aggressive long-term and interim GHG emission reduction targets. Here in Connecticut, the Global Warming Solutions Act, or GWSA, a state statute that was enacted in 2008, established a requirement for our state to reduce the level of economy-wide greenhouse gas emissions by 80 percent by 2050 And a mid-term target of 45 percent below 2001 level by 2030.

Connecticut's most recent greenhouse gas inventory indicates that our state is not on track to meet its 2030 target and emissions from the transportation sector remain a key obstacle for Connecticut to achieve its Global Warming Solutions Act targets.

In the Section 177 states, the transportation sector accounts for roughly 50 percent of state greenhouse gas emissions and passenger cars and trucks are responsible for half of those emissions.

Transition -- transitioning to ZEVs is also necessary for our states to achieve and maintain attainment with National Ambient Air Quality Standards for ozone, which is a persistent threat in the north east and in Section 177 states and other parts of the country. Light-duty vehicles account for nearly a quarter of NOx emissions in the Section 177 states.

In fact, Connecticut has struggled to overcome a persistent ozone non-attainment problem for almost 50 years. During that time, Connecticut's citizens have suffered the public health and economic impacts from ozone nonattainment. This past year, for example, Connecticut experienced 21 days with unhealthy ozone levels. EPA's current rulemaking proposes to reclassify Fairfield, New Haven, and Middlesex counties here in Connecticut as severe non-attainment with respect to the 2008 National Ambient Air Quality Standards, or NAAQS, for ground level ozone.

Connecticut desperately needs reductions of smog-forming NOx to make progress in addressing our persistent ozone non-attainment problem. And in the meantime, our citizens, especially those residing in overburdened, disadvantaged communities continue to suffer the harms of unhealthy air.

Connecticut needs to pursue the few remaining emission reductions strategies. Adopting the California standards is one of those critical strategies. It's crucial for the health and well-being of every person living in our state.

ACC II promises to deliver substantial reduction in smog-forming NOx and fine particulate matter. Moreover, the transition to ZEVs wilt provide improved public health outcomes, especially in low income and frontline communities located near heavily traveled roadways.

In short, ACC II offers Section 177 states a core strategy for meeting state climate and air quality goals.

And now I'll turn it over to my colleague from New Jersey.

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PEG HANNA: Thank you so much, Commissioner Dykes, and thank you, California, for allowing us to testify here today.

As a Section 177 state, we recognize that complementary policies and programs are also needed and should be expanded to help support the growing ZEV market. For the past decade, New Jersey and the other 177 states have worked collaboratively through the multi-state ZEV task force facilitated by NESCAUM and successfully pursued a wide range of market-enabling initiatives. I wanted to give you just a few quick examples today.

The 177 states have established incentives for

ZEVs and associated charging infrastructure. Here in New Jersey, we have a long-standing It Pay$ to Plug In grant program, which has awarded $11 million so far for Level 2 and fast charging stations at workplaces, multi-unit dwellings, and public locations.

In addition, three of our four utilities have grant programs for the EVSE make ready associated with the charging infrastructure. Combined, these programs will fund 1,300 fast chargers and 5,000 Level 2 chargers. We also have a ChargeUp New Jersey program, which is cash on the hood for electric vehicles. That program has awarded $60 million in two tranches over the short period of only 11 months. And they are ready to relaunch with another $35 million in funding.

We have also engaged dealerships in ZEV training programs as well as ride and drive events. New Jersey has a dealer training program called PlugStar. This program is funded through a unique partnership with the New Jersey Coalition of Automotive Retailers, which is our New Jersey car dealers association and ChargeEVC. We currently have 16 PlugStar certified dealers in New Jersey, and that number is growing every day.

Post-training surveys from the dealerships have been uniformly positive. We have also, as a region, launched *Drive Change. Drive Electric*. The nation's first joint state and industry funded consumer outreach and education campaign. In the campaign's most recent survey of consumers and participating states, the number of consumers who say they will consider an EV for their next purchase has jumped by 16 percent compared to 2018. In addition, 62 percent of the survey respondents say they are likely to consider a new or used EV for their next purchase. This is strong evidence that consumer interest is growing.

We, as 177 states, have also developed best practices to support open, reliable, and consumer-friendly charging networks, permit streamlining for fast charging, and right to charge laws. In fact, New Jersey developed a first-in-the-kind -- first-of-its-kind law that streamlined the permitting process for all EV charging installations and requires EV charging stations and make ready for new multi-unit dwellings and parking lots. We are also developing a toolkit to get EV charging stations in existing multi-unit dwellings.

We have engaged with State utilities and utility regulators to spur utility investment in transportation electrification programs and we've also begun electrifying our own public sector fleets. I'm going to now turn it over to Massachusetts.

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CHRISTINE KIRBY: Thank you, Peg, and good morning, Chair Randolph and members of the board. I am Christine Kirby. I am the Assistant Commissioner of the Massachusetts Department of Environmental Protection and I am very pleased to be part of this panel on ACC II. You heard from New Jersey that EV infrastructure deployment has been a big focus of our effort. We are working hard to get and stay ahead of ZEV adoption by building out our infrastructure network and we have been at this for many years.

As you can see from this slide, the pace of charging station deployment and development in the Section 177 states is accelerating very quickly. Outside of California, nearly half of the nation's public charging infrastructure has been deployed in the Section 177 states.

Importantly, public utility regulators in our states have approved expansive, make-ready utility charging infrastructure programs. In fact, 76 percent of utility funding outside of California is in the Section 177 states.

At MassDEP, we are partnering -- partnering with our investor-owned utilities to leverage our funding with utility funding approved by our Department of Public Utilities. The Section 177 states are investing the maximum amount of VW funds allowed under the settlement in infrastructure deployment. In Massachusetts, this funding has supported and supplemented other funds to deploy DC fast charging, workplace and fleet charging, multi-unit dwelling charging, and public access charge -- charging, excuse me.

To date, MassDEP has funded close to $40 million in infrastructure projects under the Massachusetts Electric Vehicle Incentive Program. In addition to the 40 million, the Department of Public Utilities has approved 80 million in utility funding for infrastructure, with another 471 million pending approval. That's in front of the DPU now.

Earlier this year, the Baker-Polito administration was pleased to announce over 13.1 million in funding for DC fast charging grants to significantly expand our network and to ensure geographic coverage of these stations.

We leveraged funds from the VW settlement with the Massachusetts Climate Mitigation Trust and the utility programs to fund 150 locations and 306 charging ports at publicly and privately owned vacation -- locations. As part of these grant decisions, like our other grants, we prioritized communities with environmental justice areas for funding. And I'm pleased to say that 37 percent of the grant funds were dedicated to EJ areas.

In closing, the results of the investments across our states has -- are reflected in a sharp increase in the number of public charging stations over the past three years. In 2021 alone, the states added 7,000 new charging ports. And that's a 23 percent increase over 2020 levels. That is not an insignificant achievement. Thank you for this opportunity and I will now turn it over to Oregon.

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RACHEL SAKATA: Good morning, Chair Randolph and members of the Board. My name is Rachel Sakata and I'm a Senior Air Quality Planner at the Oregon Department of Environmental Quality. And I'd like to touch on the state of ZEV sales in the Section 177 states.

Now, as market momentum and consumer demand for electric vehicles continue to accelerate, EV sales are in an upward trajectory in the Section 177 states. In the past three years, the EV market share has more than doubled. And even amidst the 2021 supply chain issues, ZEV sales increased in every quarter.

Now, the Section 177 states are in a very positive growth trajectory and consistently are outperforming both the non-ZEV states and the national average for electric vehicles sales, but they still do lag behind California.

And that's not surprising, given that California's ZEV market has had more time to mature due to the so-called travel provision, which until 2018 allowed manufacturers to delay marketing ZEVs in the Section 177 states by giving automakers credits in the Section 177 states for cars sold in California.

Now, in Oregon, since 2018, we've seen considerable growth with our ZEV sales at almost 8 percent of the overall market share in 2021. And as we see ZEV sales continue to increase, we are ensuring that our low and moderate income consumers are not left behind in the EV market. Thus far, through our rebate program, we've provided over $6 million in dedicated funding to these consumers for the purchase or lease of a new or used electric vehicle.

We also have a dedicated education and outreach effort focused on reaching out to low and moderate income consumers to inform them about the benefits of EVs, the availability of rebates, and charging accessibility.

And so now at this point, I'd like to pass it on to my colleague in New York.

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CHRISTOPHER LALONE: Thank you, Rachel. My name is Christopher LaLone. I am the Director of the Division of Air Resources with New State Department of

Environmental Conservation.

In September 2021, Governor Hochul signed legislation that included a requirement that all new light-duty passenger car and light truck sales be a hundred percent ZEV by 2035. New York's Climate Leadership and Community Protection Act has established a very ambitious and nation leading climate change mitigation targets, including a 40 percent reduction in greenhouse gas emissions by 2030 and an 85 percent reduction by 2050.

New York needs to expedite vehicle electrification to meet its Climate Act targets, which is further supported by New York's goal to have 70 percent renewable energy generation by 2030. As required by the Climate Act, New York has developed a draft scoping plan and supporting analysis that indicate New York needs at least 90 percent ZEV sales by 2030 to achieve these targets.

New York's adoption of ACC II, as provided under Section 177, is an absolute need towards achieving New York's EV and climate change legislative goals. A robust national ZEV market will help to achieve the market transformation contemplated by ACC II. Section 177 state adoption of ACC II is the key to rapidly building that market. Section 177 creates economies of scale that lead to more affordable cars and a wider array of models to serve consumer interests.

Section 177 states also provide the underpinning of strong federal regulations needed to enhance market certainty and foster additional investments in zero-emission technologies. The combined market share of California and the Section 177 ZEV states, more than 35 percent of new car sales in the U.S., will drive the development of a robust national ZEV market and strong national standards

To achieve our shared market transformation goals, ACC II must be widely adopted by other states. The proposed ACC II ZEV regulation includes the right mix of ZEV compliance flexibilities to address varying market conditions across the Section 177 states, and the differing needs of automakers. At the same time, the propose -- proposed flexibilities are appropriately limited and phased out to ensure ZEV market growth over time.

The current Section 177 states and other states considering ACC adoption are in different places with respect to ZEV sales, charging infrastructure development, consumer demand, and other factors. Likewise, automaker -- automakers are not all similarly situated and may experience fluctuations from year to year. Offering a variety of flexibilities provides numerous pathways for complying with ACC II's increasingly stringent ZEV sales requirements, and is essential to building support needed for Section 177 state adoption of ACC II. In our opinion, the proposed ACC II flexibilities strike the right balance.

In closing, we want to reiterate our strong support for ACC II. Thanks -- thank you again for your leadership on this critically important motor vehicle emission program. We look forward to our -- continuing our partnership with California as the Section 177 states work to adopt and implement ACC II.

CHAIR RANDOLPH: So is that it for the staff presentation?

Okay. All right. Thank you.

CHRISTOPHER LALONE: Yes.

CHAIR RANDOLPH: All right. Thank you. I wanted to give the Board a moment if you would like to ask questions of any of our panelists before we go to public comment.

Board Member Sperling.

BOARD MEMBER SPERLING: Yes. Thank you.

Great presentation, but we'll talk about that later. There was a slide there that Anna Wong presented about continuing to refine the proposal. And I thought those refinements were more than just a few vague words. Can you enlighten us whether that's true? What exactly are these refinements that I thought were pretty advanced proposal? So there -- in particular, one was on durability and warranty another was on the historical ZEV credits, and the other was on fuel cell vehicles.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: So would it be helpful to bring up the slide or would you like me to just speak to it?

BOARD MEMBER BALMES: It's 31.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Thirty-one. I'm bringing it on my computer, but that's probably not helpful to you -- all of you.

Mike, do you want to go for explaining durability.

BOARD MEMBER SPERLING: You know, and just -- the reason I'm asking is because if we're going to have a discussion about that and there are going to be comments --

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Um-hmm.

BOARD MEMBER SPERLING: -- it would be useful to know the latest thinking.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Okay. This is Mike McCarthy. So let me talk about durability.

In the -- in the draft language we've developed for a 15-day language change that we would put out, we've been talking to industry a lot about durability. So as a reminder, we proposed that vehicles be designed for the typical customer to retain 80 percent of their original range for 10 years. So that's sort of the bogey we've put out there, that 80 percent.

Most of industry is on track to meet that for their typical customer. They believe they'll be in that ballpark. The leaders in the industry, I believe they'll be better than that, some even publicly have marketed that they'll be above 90 percent in 10 years, but it's still a new requirement that they've never faced before and it's still a requirement on a technology that is rapidly evolving on cars that they don't actually have 10-year old cars on the road yet for. Most of them do not have that.

So we do have to take into account that this is new for them and they are gaining experience still. So what we have proposed to do is to soften that requirement in the early years. Specifically for the first five years of the proposal, the new bogey would be 75 percent of range. So the typical customer would -- would have to be -- they would design the car to meet to retain 75 percent of its original range for those 10 years. That gives everybody a little more breathing room in case there is some unexpected degradation that their lack of experience has kind could of put them on -- ill-placed to predict.

The second part of that is that corresponding change in enforcement. Obviously, if we lower the design target, we have to lower the enforcement to match that. And what we've done there, because of their lack of experience of real-world cars, something unexpected that they didn't plan for, they didn't project for, could happen. And so we have -- we have proposed changes to the enforcement that would set the enforcement trigger a little bit lower than that actual design requirement. So instead of holding them accountable right to that 75 percent for the first five years and 80 percent after that, for the first seven years, we have softened the enforcement a little bit, so that if they missed the mark, they've got to miss it by more than just a trivial tiny amount. They've got to miss it by a little bit more before we start talking to them about enforcement and what's going on.

This gives them again a little bit of breathing room. They have to design up front to meet it. They have to show at the time of certification they're going to meet it. But if something unexpected happens, some amount of vehicle to grid or home operation that is more than they anticipated, some amount of other degradation that they just didn't properly account for, this gives them a little bit of breathing room. The typical owner would have to -- you know, again, we would tie stuff to the typical owner, but it would just soften it a little bit in those early years and give them experience. It's kind of still holding them account, but at a slightly lower level. That is the -- that combination of changes we've made to the durability proposal.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Okay. And so now, let's go to the other mechanisms that we're proposing to change. The first is it's a misnomer. We shouldn't have called them historical credits, because they're yet to be earned in many ways. But they're Advanced Clean Cars I credits. So after the close of the banks in 2025, we have ZEV credits, we have plug-in hybrid credits. And the first action that we're going to do is we're going to shrink those banks by dividing them by a factor. And originally we were going to divide the ZEV banks by a factor of four and the plug-in hybrid banks by a factor of one.

Now, when you divide a groups of numbers by a bigger number, you have less of them. That's just how it -- how math works.

But plug-in hybrids --

CHAIR RANDOLPH: Sorry, Anna. Sorry, me. Can you just explain a little more clearly what you mean by divide, because I want to make sure everybody is following.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

Okay. You have a bank of credits. That's a number of credits. And in California, there are a lot of ACC I credits that will be amassed, a lot. And we bank those in different buckets within our program, because there's different rules on how you can spend those credits. ZEV credits have the most power and regulation, because they're our gold standard going back to, you know, what ZEV 4.0, not, you know, 6.0 that we're on now.

So we're going to the gold standard and those can be used. So those are banked differently. And then there's plug-in hybrid credits, which have always been an option. And so that's in a different bucket. You take all those credits and what we first decided to do is to make them usable within Advanced Clean Cars II. And the first step we take is we divide that bank of credits by a factor. Originally, we had proposed a factor of four ZEVs and a factor of one for plug-in hybrids. And that would disproportionately benefit plug-in hybrids over ZEVs. But high plug-in hybrids have always been an option to ZEVs, so we didn't really think that that treatment was fair, so now we're going to a factor of two for both types of credits. So those credits they come after 2025, whatever is in that bank, we divide that -- each of those banks by a factor of two. That makes them now into this new historical ZEV credit category.

Now, we've always since -- you know, let's see. When we first proposed this back in May of last year, you could -- we proposed that you could use these credits in a limited way. Manufacturers could meet up to 15 percent of their requirement with these historical credits. We aren't usually in the -- the business of just deleting credit banks. So this is a way for manufacturers to still benefit from that overcompliance, that very good action, but in a limited way, so that they could just run over the program with just credits and not make any more vehicles.

So 15 percent per year for the first five years. What we have proposed in addition to that change in the factor from four down to two, or one up to two, depending on the credit category, we're also proposing to allow manufacturers to use the cap cumulatively. And that means over those five years, they calculate what they would have spent each year, and they can spend those all within the first year or within the last year, but it gives them a little bit more flexibility on when to spend those credits.

It still is equivalent to the same number of vehicles in terms of the trade-offs. There's no disbenefit to the overall number of vehicles, but it allows some manufacturers flexibility where it is needed.

And overall, we don't expect this to have an effect in a strong market like California. Where this will benefit most is in a market that is being more developed, such as those in the Section 177 states, where manufacturers need more options in their compliance path to get to that hundred percent. So this is one of those that is on there.

Is there any other questions about historical credits?

Okay.

BOARD MEMBER SPERLING: And fuel cells.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

Okay. So fuel cells are dependent on hydrogen infrastructure. And California has a growing number of hydrogen infrastructure stations all throughout California. And most fuel cell deployment in the United States is centered round California's infrastructure.

Manufacturers, when they think about their compliance plan, they are trying to develop it, not just for one market, they're trying to look across a broader swath of places. And again, like we said, 15 states now have adopted the ZEV regulation and we expect the majority of those to continue on with ACC II.

So we are proposing, after working with the states and with hydrogen manufacturers -- or fuel cell manufacturers, a bit of proportional credit for every fuel cell vehicle that is placed. And what that does, it doesn't really affect where it's placed. So like in California, we expect most of these vehicles to be -- to be placed here. But what this does is it provides for manufacturers to not have to provide that type of vehicle in the other states, so they can have kind of a compliance plan that does not depend on hydrogen infrastructure that's not being built in those states.

Traditionally, for those of us who have been on this Board for a long time that I've worked with you, it's been called the travel provision, but this is a more limited travel provision, in that it really only takes care of compliance for that segment that you've built to meet with fuel cell vehicles. So it's very limited and there's -- in no way we've placed a cap on this, so it's only 10 percent of your overall compliance that would be coming from these proportional values. And it's limited through 2030.

So that's how we've -- we've limited more than fuel cells, the original travel provision, which would have just given extra credits for every single fuel cell placed and with no cap. So this is a more limited approach and has been worked out with the Section 177 states that would be most affected by this proposal.

BOARD MEMBER SPERLING: So just to be clear on that, that's 10 percent cap per state or per automaker -- or per automaker per state I guess, right?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right. It's both, yeah.

BOARD MEMBER SPERLING: Okay. Yeah.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: And it's actually just up to a 10 percent cap. It's -- overall, the cap is actually based on the state where you have the highest number of fuel cells placed. So, for example, if in California, you only made six percent of your requirement fuel cells, here in California, the cap would then become six percent, not 10 percent. It's not an automatic 10 percent. It's actually based on actual fuel cell vehicle placement in a place.

CHAIR RANDOLPH: So it would be six percent in every state?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Yeah, that's right.

BOARD MEMBER SPERLING: Okay. Well, thank you very much. That -- so just to be clear also, so this is part -- these are the 15-day changes?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right.

BOARD MEMBER SPERLING: So when we have a discussion, you know, and comment, and here, these are what we should be referring to?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right. And they're available in a paper copy in the back of the room. And we put up a QR code to go to our website, and you can look at the -- each of the regulations. They're posted up on our website right now.

BOARD MEMBER SPERLING: Thank you. Very beautifully explained.

(Laughter.)

CHAIR RANDOLPH: Okay. Anymore clarifying questions?

Oh, Mr. Florez.

BOARD MEMBER FLOREZ: Thank you. And just to follow up to this slide and the process that was just mentioned, so I can understand the -- from the Chair's perspective, the process is we have these 15-day comments. We have a resolution in front of us. We're going to have public comment. And is it the expectation that public comment will then inform additional changes as we move forward and that will be incorporated or is it that the

15-day changes are done, and we're going to hear comments for not, I guess, is my --

CHAIR RANDOLPH: As we typically do with our regulatory proposals, we will -- you know, staff has given us their proposal. They have given us the proposed 15-day changes that they recommend.

BOARD MEMBER FLOREZ: Okay.

CHAIR RANDOLPH: We will hear from -- hear public comment. We will have a Board discussion. If we want to discuss the -- either the original regulatory language, suggest additional 15-day changes, tweak the 15-day changes that have been suggested, add policy direction in the resolution, we can do all of those things as we typically do when we do regulations.

BOARD MEMBER FLOREZ: Okay. And I know we typically do that. But then if that comes to fruition and we have a rigorous conversation from the Board with some additional changes, does that then come back to the Board or is it just kind of -- how do -- how do we get another look at it, I guess, is my -- my question?

CHAIR RANDOLPH: Well, we will have another Board hearing in August --

BOARD MEMBER FLOREZ: Okay.

CHAIR RANDOLPH: -- so there will be an opportunity to circle back again in August and have more discussions. I will say, as our discussion with the 177 states indicates, you know, this is a very critical regulation for their air quality and greenhouse gas strategy. They want to capture model year 2026 and going forward, just like we do, so we need to give them a completed regulatory process, so that they can then take action before the end of the year. So it's going to be really important to have a robust discussion today and be ready in August to -- to take action and get a proposal going, so --

BOARD MEMBER FLOREZ: And maybe just to follow that up, I guess this is -- I'll mention this today and I definitely will mention it during our Scoping Plan discussion, and that is when we have these, in some sense, deadlines - you were just mentioning we have to get this done before the end of the year - is that like our staff's recommendation that it has to get done or is it -- there's some federal regulation that says we -- it has to get done? Is it just our schedule that says it has to get done? What's driving it has to be done by August or September? It's probably the same question I'm going to have with the Scoping Plan, but today we're talking about this. So I just want to know how will --

CHAIR RANDOLPH: Right. Well, those are kind of two different things, right, because the Scoping Plan has a --

BOARD MEMBER FLOREZ: Yeah. Yeah.

CHAIR RANDOLPH: -- has a statutory time frame.

BOARD MEMBER FLOREZ: Sure.

CHAIR RANDOLPH: But Craig could probably provide a good explanation.

DEPUTY EXECUTIVE OFFICER SEGALL: Senator Florez, it's federal law. There's a particular federal waiting period for model years for the 177 states. So they need to adopt before the end of this year to be able to adopt the first year, the model year '26 of the proposal.

BOARD MEMBER FLOREZ: Um-hmm. This piece.

DEPUTY EXECUTIVE OFFICER SEGALL: Right.

BOARD MEMBER FLOREZ: And what's the deadline?

DEPUTY EXECUTIVE OFFICER SEGALL: The end of this calendar year, so basically, they would have to, if they choose to, adopt identically our regulation.

BOARD MEMBER FLOREZ: Um-hmm.

DEPUTY EXECUTIVE OFFICER SEGALL: And the way federal law works is that there's a particular time between the time they -- we adopt and the time they can start enforcing.

BOARD MEMBER FLOREZ: Sure. Okay. No, I just wondered. It seem like we have some very big pieces to accomplish before the end of the year, this and the

Scoping Plan. So I was just trying to get an understanding of what, in some sense, drives these decisions, and how much time truly do we have to put our imprint, as Board members, as the public, et cetera. And so I'm not going to try to delay or -- I'm just trying to figure out how much work we can do and what time periods. So I appreciate that.

DEPUTY EXECUTIVE OFFICER SEGALL: No, we appreciate that. Thank you

BOARD MEMBER KRACOV: Chair.

CHAIR RANDOLPH: And Board Member Hurt had a question.

BOARD MEMBER HURT: Thank you.

You know, we've repeatedly heard that ACC II does not align with the Mobile Source Strategy. And I was curious if you could speak to this interpretation and what may be confusing the public around that space. I know we've talked in staff briefings. But I think for the public a conversation around the Mobile Source Strategy and how they integrate with what we're doing today is important.

DEPUTY EXECUTIVE OFFICER SEGALL: Sure. I can take that. So the Mobile Source Strategy is one high level top-down look. In other words, it asks, you know, what would be the ideal circumstance to get to. It's not intended to guide -- you know, just one regulation isn't the way we implement that. That's the whole portfolio, so that's the incentive program, that's all the other things we're doing. So this is one piece to help realize our overall goals. It's a really important piece, though.

CHAIR RANDOLPH: Okay. Any other clarifying questions before we hear public comment?

Board Member Kracov.

BOARD MEMBER KRACOV: Yeah. Just for the Chair, and Board Member Sperling, and Anna Wong, there was that fourth bullet point on the medium-duties, what's that -- that proposal?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

Okay. So we expect for some manufacturers to -- in order to transition like a -- like a big pickup truck, when you take out all of the engine, and transmission, and emission control systems, all of that out and you replace it with a battery, it might not -- it might cease to be a light-duty truck and become -- a medium-duty vehicle might fall above 8,500 pounds. And so manufacturers have asked to retain a flexibility that is already available today, which is this option to choose where to count those credits towards Advanced Clean Cars or another regulation that this Board has adopted Advanced Clean Trucks?

And so we have worked with those manufacturers to find a path, so that we can retain that flexibility. And on top of that, we have created some certification paths for compliance for medium-duty ZEVs. So those two things have happened and -- and we're -- what we're doing is retaining -- retaining the flexibility to count those credits, where the manufacturer choose -- chooses to count them, Advanced Clean Trucks or Advanced Clean Cars?

CHAIR RANDOLPH: And to be clear, they can't count them in both.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right. That's right.

CHAIR RANDOLPH: Okay. Sorry. Board Member Takvorian and then Vice Chair Berg.

BOARD MEMBER TAKVORIAN: Thank you.

I know we're going to hear -- I have a lot of questions, but just the one that I thought you might want to expand on your discussion of the equity provisions and your choice to make them all voluntary rather than mandatory. And I know that you -- we talked about it in my briefing, but I think that there is a strong argument for why they need to be required or something needs to be required that allows us to actually have metrics and expectations about how -- how we can proceed with that and have some guarantee of relief. So I just wanted to give you an opportunity to maybe talk about that a little bit more now. And I know we'll be hearing about it in public comment.

Thank you.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

So when we developed these as I -- as a set of values, we -- we did have this concept that they would be an option for manufacturers to comply. And they were developed actually when the stringency was low -- lower. And so as we increased the stringency and then we broadened the options, we had more assurance that maybe there's not a path for every single manufacturer to comply, but that the volume of vehicles that would be headed in through these values would likely be more guaranteed, that that flexibility would be used in some way.

So what we've tried to do is, you know, come up with this option as more of a way to increase volume of vehicles and to certain applications, rather than think about a mandatory provision. And when we think about mandatory, that's a different set of hurdles than maybe a flexibility. And so mandatory means that manufacturers need to have a compliance path, in some way. But right now as they're set up, this is not necessarily appropriate for every single manufacturer that produces new cars in California.

And so that -- I would -- I would say that they were set up as a way to maximize volume within the category. There's -- we definitely expect vehicles to be, you know, equivalent to that -- to that cap that's allowed, but it might not be from every manufacturer. And that continues along an approach that we have within the regulations. Plug-in hybrids are also an option. We don't expect every manufacturer to make plug-in hybrids, but that those manufacturers have an option for a compliance path.

So that's the way that they were -- they were built and that's the way that they were expanded to ensure that there were the maximized usage, but maybe not across every manufacturer. If they were to be mandatory, we'd have to think about additional paths that would be appropriate for all manufacturers. And right now, that's not the way that those are -- those values have been -- have been set up.

DEPUTY EXECUTIVE OFFICER SEGALL: And just to chime in slightly more on that, Board Member Takvorian. In addition to the considerations Anna has mentioned, a few things sort of motivated our thinking in the equity space here. And I think it might just be useful to outline them.

And the first obviously - and this will come to the point. I promise - is just thinking about overall volumes and stringency. The second was making sure that these vehicles were durable and would last, especially in this vehicle market where most people buy cars.

And then there was the question, and this is novel. This is the first time we've tried crediting provisions like this of having particular incentives to drive vehicles that either are lower price or in particular neighborhoods. I will say that this is the first time we have asserted such authority and such an approach. There's some reasons to be gentle there considering our traditional legal and policy structures.

It's also relevant thinking about how this works across manufacturers as Anna has noted. Mercedes, for instance, is unlikely to have a sub-20K car, just as one example.

It also has been relevant thinking about how this works in other states. So not every state has our programs. Not every manufacturer can comply necessarily in every state. So when I think about this, we really are quite confident that many manufacturers, given how hard we're pushing on stringency, will use these provisions. They'll certainly use them in California with I think quite a large volume of vehicles.

There are significant, I will say, process and design challenges with requiring such use in every state by every manufacturer in every place. And part of that is we thought about that -- situating that within the larger portfolio of what we're doing on equity, including both in this rule and with other tools. So think, for instance, about what we're doing on the incentive side, where every year, in part, guided by guidance from you and other Board members to increase our focus on -- those deployments as well.

So it's a whole picture here. And part of it is figuring out what tool we have in our hands at any given moment. And our judgment on this one is that we'll see good use of these provisions, quite good use, in ways that don't lead us into, I'll say, non-trivial implementation complexities, were we to require them.

BOARD MEMBER TAKVORIAN: So thank you both for your responses. I -- I guess I just -- I don't feel like we're trying hard enough honestly. And I know we're going to talk about more, but it -- I understand that mandatory in one definition means across the board. It doesn't have to mean across the board. We can be creative about how we utilize equity requirements as a stronger incentive. And I guess maybe -- maybe that's the question as to how you -- you can do that within the program, because there's no guarantee of any use of these credits at all, which is

I know not the goal. I know that's not your goal. I know that's not the Board's goal. I know that's not what the public is seeking, but we have no assurances that there -- they will be utilized.

And frankly, there's affordable ZEVs in other places and other countries that are far exceeding California at this point. I know there's a lot of reasons for that as well, but I don't feel like this is -- this is really equity. You know, this is a nod towards equity, but it doesn't guarantee that we can get those cars into the hands of the consumers that need them the most, and to build the population of those cars in the communities that are impacted the most.

So I'm looking for that. I'm looking forward to that discussion and hope that perhaps as this evolves into what I know will be a long discussion, we can -- we can talk more about that. So thank you.

CHAIR RANDOLPH: Dr. Pacheco-Werner.

BOARD MEMBER PACHECO-WERNER: Yes. This is a question for Tyson. Thank you so much for your presentation. As you talked about, you know, in terms of like the report highlights for the infrastructure, and the workforce, and sort of the plans for that, what are some of the timelines that folks are thinking in terms of some of this being fully implemented, like if you have a -- a goal in terms of, you know, when you'd like to see all of the cities and municipalities in the streamlined permitting or in the -- or, you know, where you'd be able to say, okay, we now have a robust, you know, training program. And I think this will be helpful, especially as we hear comments about, you know, some of the deadlines.

Thank you.

TYSON ECKERLE: Yeah. No, it's a great question. I think we're going about it like our pants are on fire. I mean, our goal for the streamlined permitting is March 2021. So like, we missed it. You know, it's Earth Day -- or April 2021. You know, and so we've been pushing, you know, and trying, you know, a bunch of different hours. There's not really -- in that particular one, there's not a stick at the end. It's also enticement, right? And it's also limited staff and all that type of stuff. So we're going to -- you know, it's as soon as possible.

And really on the infrastructure piece, I mean, a lot of it is implementation of budget. So the California Comeback Plan, you're seeing a lot of that starting to come to fruition now, so that the EnergIIZE program, as an example, on heavy-duty is just getting off the ground. You know, the first funding lanes were just opened this -- these last couple of months. And then there will be a lot more funding coming in once you get it -- this takes time to get the projects going.

I think, you know, on the infrastructure, we have, you know, a pretty good glide path to getting to our 2025 enabling targets for charging and fueling, but that has continue to ramp up. And so it's hard to put target dates. I mean, it's -- I mean, it's as soon as possible, as unsatisfying as that is within, you know, the realities of implementing this system. Does that help?

BOARD MEMBER PACHECO-WERNER: Yeah. So maybe for me, if you're thinking through like, you know, a rural community would -- you know, where is a realistic sort of -- if you had a crystal ball, knowing that it's -- you have nothing on paper, but just as, you know, as we're thinking about, you know, these deadlines.

Thank you.

TYSON ECKERLE: Well, from a rural community perspective, I mean, it really depends -- so we're getting a lot of interest from rural communities, which is great. And one of the things that is happening in that GO-Biz, is we have a lot more boots on the ground from federal funding to reach out to renewable communities from a kind of business development perspective. And a lot of -- especially some of the -- you know, like in the Lake Almanor area, as an example, they're seeing it as a way to attract tourism, if we build out charging infrastructure and fueling infrastructure. And so we're working with them, and the Energy Commission has grant solicitations for renewal -- for rural communities underway now.

And so -- and then the other part too is -- you know, is implementation like on the permit streamlining as an example. So AB 970 kicked into effect for larger cities this year. And then they -- it comes into effect next year for the rural communities in terms of the timelines.

And so those timelines are already baked in. So in -- in a sense, we are streamlined as a state. But to really make it happen in practice, you have to get those -- the processes in place. And so we're working with -- we're putting a lot of focus on rural communities right now to bring them up to speed.

CHAIR RANDOLPH: I accidentally skipped Vice Chair Berg, so I'm going to go to her and then Board Member Hurt.

VICE CHAIR BERG: Well, thank you very much. It's no problem. Tyson, I want to continue with you and it's always great to have you here. As we look at these various State agency action plans and that we do have things that we have identified and moving forward to. As you mentioned and I think Anna also mentioned in our last meeting, we talked between six agencies that absolutely are committed. My questions is we have a very steep stringency plan, which we need, and we need to meet this plan. So how are we going to distill down the key metrics, so we as regulators can respond quickly?

Because this isn't about did we develop the perfect plan. No such thing. It isn't happening. There will be some bumps in the road. There will be some barriers. And if we can't respond quickly, like an entrepreneur does, if we have to go through a lot of red tape to address things, then we aren't going to make the plan. Okay. Time is not on our side.

So help me understand from GO-Biz perspective how are we going to identify key red flags, trends that are going not in the direction that we need to meet these plans, so we can get it back to the decision-makers, and keep them abreast, not surprise us, in all the agencies, not just ARB, but CEC, the PUC. How are we going to -- what are your thoughts -- not how. What are your thoughts in looking at that? Because it's going to be a key component, right?

BOARD MEMBER KRACOV: You have to watch the permitting Olympics, isn't that what you call it?

TYSON ECKERLE: Yeah, that's true. Yeah.

(Laughter.)

TYSON ECKERLE: We're trying to maybe launch the

ZEV Readiness Olympics as another one too to help make it a little bit more fun. But I think that's -- so Vice Chair Berg, thank you for your question. I think that one of the things we're -- we just launched and talked about it at the infrastructure Board meeting that we did, is the ZEV markets kind of snapshot, you know, on a quarterly basis. And so the idea there, at least at the highest level, we can look at the dials. Like, you know, you look at the slide that Anna showed earlier with the ZEV adoption. That makes me feel pretty good, the 16.3 percent in Q1. So that's, you know, there.

But then you can also click into that and start to figure out, okay, well, what are those cars? You go to the CEC's dashboard, you can see that Tesla Model 3 and Model Y are dominating, at the -- you know, just kind of where they are. You can go county by county and start to pick apart from there. We're working a lot also on workforce, which turns out to be a pretty hard thing to measure, but to make sure that we are developing those pipelines going forward and so -- and iterating. Also, the end user experience is hard. I mean, it's easy to count vehicles and infrastructure, relatively speaking. So at least that's the thing.

And then we're looking at those outcomes we're driving towards. So like, you know, the greenhouse gases we're familiar with and the air quality, but also the access to the market. And I think that's where the -- you know, the EV provisions -- the ZEV provisions for used vehicles and all that type of stuff is really important, right, to -- to buy down that cost there and create access. And so we're -- it's kind of -- it's -- we're trying to figure out a way to measure a feeling. So at least people in your seat can go, okay, this looks like it's on the right path or we need to make some adjustments. So there's -- that's kind of the top down.

And then bottom-up, I mean the whole theory behind the ZEV market development strategy is to put all the staff who are working on this stuff day to day in the driver's seat for decision-making, because they see things we don't see. As an example, there's -- I keep using medium-duty and heavy-duty examples, just because I was thinking about it, right, but the metrology for charging stations. The Division of Measurement and Standards has already put out a letter that will help keep the programs going. Otherwise, it didn't line up with the NIST, the National Institute of Standards, handbook. And so, you know, we're -- so like these little things where you go like oh, my goodness, here goes the warning bell, that staff can go ahead and do.

And so the thinking behind the agency action plans is to put the staff who are the most close to the problem in that decision-making thing and we run it up through the agencies and bring transparency into it. So I think it's -- it's top-down and then bottom-up. Is that --

VICE CHAIR BERG: That does help and I really would do the sideways one, which truly is consumer acceptance. If we start hitting a plateau, we just can't keep beating up the OEMs. We have to be partners here. And so if we can also figure out a way to measure how is the acceptance from the consumer going, I think that also would be extremely helpful.

Thank you so much.

TYSON ECKERLE: Thank you.

CHAIR RANDOLPH: Board Member Hurt.

BOARD MEMBER HURT: Thank you, Chair. I really appreciated Takvorian's -- Board Member Takvorian's comments. And I wanted to take a question out of this area of equity. We talk a lot about access, and affordability, and using credits to spur the market for more and more ZEVs to be built. And I'm curious whether we've considered, you know, using credits to encourage smaller vehicle types? And are there any thoughts around trying to get a greater supply by smaller vehicles? I know, in the U.S., we like our big cars, our big trucks, but thoughts around that space.

And I bring it up, too, because we talk a lot about the EU and how there are a lot of cars there, but I want to remind folks that there are a lot of subsidies as well as smaller cars.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Okay. So what -- I just want to make sure I understand the question. You're asking about crediting provisions that would give higher value to smaller cars?

BOARD MEMBER HURT: (Nods head.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: You know, I think that that -- the ZEV regulation over 30 years has tried so many things, and especially with credits. We've tried to spur different action or different vehicle attributes. And when it comes to the size of vehicles, you know, we have overall let the market decide what the market wants and gone more with range-based attribution, because that, you know, is the clearest connection back to environmental benefit.

But really one problem when you start giving extra credits to certain vehicle types, it starts ballooning the credit banks in ways that are -- don't result in real vehicles. And so back to kind of the structure of the -- of the program, we really this time thought about what structure gets us to vehicles and away from this conversation about credits, credit banks, ballooning credit banks that stave off future requirements, because that's where we find ourselves today, and that's never where we should find ourselves again in order to make to a hundred percent goal.

So overall, the -- the program has been structured in a different way by using minimum technical requirements, partnered with a way of counting vehicles -- new vehicles first, and giving all vehicle technologies, regardless of size, regardless of weight, you know, all sorts of different things, one value.

And it's a little bit innovative for the ZEV regulation, considering where we have been and considering all the different ways that we've tried to credit vehicles to move the market in different ways. And what we've really found, and back to Vice Chair Berg's point, is that the market needs to speak in the space and the manufacturers need to develop segments -- or vehicles in every segment or we're never going to make it to 100 percent.

So the volume in itself, just the high volume that we are driving, that will solve a lot of the issues in that space, without having to actually give up more of our programs by extra crediting provisions. So it's not to say it's not a good idea, but we've been at this game for such a long time, that I think now we're recommending an approach that is simple, and direct, and results in real vehicles, and goes away from big credit banks.

BOARD MEMBER SPERLING: Chair Randolph, could I help out Anna a little bit here?

Well -- oh, you're going to follow up.

BOARD MEMBER HURT: That's okay. I would actually like to help out. So let's hear what you have to say and then I'll follow up with another question.

BOARD MEMBER SPERLING: Okay. Yeah, so it was to your point. So the -- I mean, as Anna said, we've -- you know, those of us that have been around a while, we've seen -- it's been painfully complicated in the past, but the -- to support what you're going at is there's two important things here that will contribute to what you're asking about.

One is that with electric vehicles the batteries are so heavy and so expensive, that it creates a strong motivation to downsize the vehicles a little bit just to save money. So that's one of the good things that we're doing.

The other thing is we're getting rid of what I considered very flawed greenhouse gas standards, which had less stringent requirements for trucks and SUVs, and also had a footprint-based approach, which gave an --

maybe not incentive, but facilitated large vehicles. So by getting rid of all that stuff and just moving to this -- you know, to moving to electric vehicles, dispensing with all that, we're making good -- some good progress.

And I would suggest some time in the future, we might follow up on what Davina is suggesting, but I think there's some good news here.

BOARD MEMBER HURT: Thanks for that help out.

I'm just trying to think about how we can make the EJ component of this stronger. And it just seems to me that smaller cars, and everything that we've all said here today, is one way of doing it. And maybe it is something we need to look back to in the future.

My other thought or idea, and I'd like to learn and see what you all think, is when we talk a lot about the stringency -- and a lot of folks have said, more, more, more. And, of course, we have to be careful not to break the market and the system, but at the same time, really push the market in a direction.

And I'm wondering if you all have every thought about say we keep the stringency numbers where they are in 2026 and 2030, but then we look at the metrics that the Vice Chair talked about, and is there a way to put more credits and urge more sales, a higher mandate of ZEVs later years? I know people have to plan manufacturing lines. So we don't want to say, okay, well, we've learned what we've learned, and now we want to jump it up 30 percent. But is there a credit component that we can use to urge more manufacturers to build more cars? That was a mouthful.

(Laughter.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

You know, I think that it's a really interesting idea. And it reminds me of an EPA regulation -- incentive, in that if manufacturers met certain caps -- not caps. It's not a cap, because it's like a threshold. Certain thresholds within certain time frames, and they would unlock more thresholds. And it's -- it's -- I think it's really interesting and we had not specifically looked at that for this regulation. That was in a greenhouse gas context in that EPA example. But it -- you know, it would be something that we could include in -- in our always ongoing review of what we adopt. You know, we're not -- we're -- this -- we're not a staff that just, you know, adopts and walks away. It's kind of an ongoing lifelong process of reviewing this regulation, but I -- I'd have to think about it more, but I -- I think it's really -- it's interesting and just reminds me of other -- other programs that have bee adopted.

BOARD MEMBER HURT: Thank you.

CHAIR RANDOLPH: Okay. Any other clarifying questions?

Okay. So we will now be going to -- hold on. I have to get my public comment notes. Okay. We will now hear from the public who signed up to speak on this item by completing a request to speak card or raising their hand in Zoom. We have well over 100 commenters, so our commenting time will be two minutes. And I will also note after about 30 minutes, I will close the queue and -- for getting in line to comment. And we will also, at some point, be taking a 45-minute lunch break. So just so folks are aware that that will happen.

Okay. Clerk, would you please begin calling the commenters?

BOARD CLERK GARCIA: Thank you, Madam Chair.

I will start with remote commenters and then pass it over to Katie for in-person commenters.

So we currently have 37 remote commenters who wish to speak at this time. If you wish to verbally comment on this Board item, please raise your hand or dial star nine now. And I apologize in advance if I mispronounce your name.

The first five speakers are Vicente Perez-Martinez, Andrea Isood, Kim Floyd, Robert Graham, and Allis Druffel.

So Vicente, I have activated your microphone. Please unmute yourself and you can begin.

VICENTE PEREZ-MARTINEZ: Good morning. My name is Vicente Perez-Martinez. And I'm speaking in support of a stronger Advanced Clean Cars Program. I live in LA with my wife and my seven year old daughter. Our house is very close to two major traffic arteries.

As you know, LA has been in non-attainment with health-based are quality standards for many years. This is affecting us in a very direct and personal way. Our backyard is so close to La Brea Avenue that the soot and grime from vehicle traffic gets all over the yard, and nasty gray dust lies on top of everything no matter how often we try to clean. We worry about the effects of the vehicle air pollution on our health. And we had to limit how much time our daughter spends outside during bad air quality days.

I'm here to urge the agency to strengthen the sales requirements and to not weaken the requirements through flexibilities, because our community desperately needs cleaner air. I also urge the agency to strengthen the rule, because a strong rule will make more EV choices available for purchase.

Because of our desire to breath cleaner air, we replaced our two family cars with EVs as soon as they became a viable option. Most importantly, we did it for our daughter to protect her future and to give her generation a fighting chance against climate change.

Finding cars that we could afford, even used, was not easy. It was made -- it was made even more difficult by the cost of setting up our home for those electric vehicles. The stronger more equitable sales standards that helped create market certainty for these technologies will help address in the state's biggest barrier to EV adoption.

I'm calling you, Air Resources Board, to protect our health and our children's future by setting strong air pollution standards.

Thank you for your time.

BOARD CLERK GARCIA: Thank you.

Andrea, I have activated your microphone. Please unmute and you can begin.

ANDREA ISOOD: Thank you. Andrea Isood, speaking on behalf the national Sierra Club and also as a mother living in Oakland close to Highways 580, 80, and 24.

Sierra Club's three million members and supporters across the country urge CARB to strengthen the proposed ZEV requirements in the early model years and to not dilute those requirements by allowing automakers to use a glut of ACC I credits and other flexibilities.

When all those flexibilities are taken into account, ACC II model year 2026 requirements are not much more stringent than the 17 percent ZEVs that will result from the federal standards in that year, and California can do so much more. Encouraging the ZEV market in the early years is critical to reduce costs and increase customer acceptance.

Sierra Club chapters in New England, Oregon, New Jersey, New Mexico, Nevada, Maryland, and Washington have joined letters urging CARB's strong leadership, so that their states can follow suit and so that their states can meet their climate and air quality goals.

On a personal note, I'm a mother of a four year old living close to several major freeways in an area with unhealthy and sometimes dangerous air quality, and it's terrifying to know my son's lungs are being damaged by simply playing outside and breathing the air.

And it's terrifying to imagine the climate disasters that will shape his life. The freeway soot finds its way inside the leaky windows in our house and as does the smoke from the climate-fueled wilde -- wildfires.

As you establish this critical policy, please keep today's children, future generations, and the vulnerable communities most impacted by pollution and climate change disasters at the forefront.

Thank you.

BOARD CLERK GARCIA: Thank you.

Kim, I have activated your microphone. Please unmute and begin.

KIM FLOYD: Good morning. Can you hear me? My name is Kim Floyd. I live in Palm Desert in Riverside County, where ozone and particulate matter levels are dangerous for all of us living here. As a matter of fact, right now, our area is under a smog alert for today and the next several days.

I am 79 years old and will need to stay inside for the next several days or wear a protective mask to go out to groce -- for groceries or other necessities. This smog alert is, in large part, the result of heavy traffic on our roads locally and emissions blowing in from the Los Angeles Basin just to our west.

I am here to ask the agency to recognize that climate change is making our air quality worse by the day and we need to strengthen, not weaken, zero emission vehicle sales requirements. Also communities of low, moderate income are already overburdened with very poor air quality. It is important that the final rules include strong equity provisions.

Thank you.

BOARD CLERK GARCIA: Thank you.

Robert, I have activated your microphone. Please unmute and begin.

ROBERT GRAHAM: Thank you, Chair Randolph and Board members for this opportunity to speak briefly on behalf of a coalition of over 40 electric transportation champions with many years of experience, the Strong Plug-in Hybrid Vehicle Coalition.

My name is Bob Graham. I've been active on electric and hybrid vehicle issues since 1990. MY last position was as Director of EV Everywhere at the U.S. DOE during the last two years of the Obama administration.

The Strong PHEV Coalition has two requests. First, please don't change the PHEV provisions in the staff proposal. No one knows how to reach 100 percent sales of battery, fuel cell, and plug-in hybrid EVs. So it is wise -- very wise for CARB to hedge its bet on the future by including PHEVs with tough requirements and restrictions in the proposed ACC II.

PHEVs will be needed by many types of consumers, including low-income drivers, people who residents often, change jobs often, or work two jobs, drivers in rural and cold weather regions, drivers that toe campers, boats and trailers, and other market segments.

Because of the difficulty of reaching a hundred percent sales in such a short time, our second request is we ask that the draft Board resolution be explicit in calling for a technology and a progress review in two or maybe three years that the Board resolution asks for five things.

One, conduct a comparative analysis on PHEV and the EV costs. Two, perform an analysis on how CARB can advance bidirectional charging in PHEVs and ZEVs. Three, determine whether the new ACC II needs to be adjusted for Class 1 or 2a PHEVs and ZEVs. Four, pursue the value of PHEVs as a platform for low-carbon alternative fuels in the future. And five, conduct another analysis as determined by CARB staff.

Thank you.

BOARD CLERK GARCIA: Thank you.

Allis, I have activated your microphone. Please unmute and begin.

ALIS DRUFFEL: Hello ARB Board members and staff. My name is Allis Druffel and I work with California Interfaith Power and Light. With a public health crisis, a climate crisis, and the reality of the Sixth Mass Extinction taking place now, we are looking to our regulatory agencies more than ever to make real impactful policies to transition us to a healthier world.

The staff's presentation was very professional and informative. And fundamentally because of the multiple crisis happening linked to transportation pollution, in part, I, representing hundreds of thousands of people of faith in California, am urging a faster timeline for the adoption of ZEVs to 75 percent ZEVs cars by 2030 and mandatory equity provisions.

Pollution from transportation has had a deep affect on my life. I experienced severe asthma as a child. Two of my nieces now suffer from, at times, debilitating asthma on a daily basis. And in 2018, my sister Carolyn, who is the light of our family, her church, and her community died of metastatic breast cancer.

She had learned that her housing tract was built on top of old, supposedly cleaned up, oil fields, and that there was a cancer cluster in her area. She lived close to the Torrance Oil Refinery and close to the Ports of Los Angeles and Long Beach. It is tragic when one person dies, and it is an environmental injustice that a majority of people who suffer illnesses and premature death are people of color, who live in close proximity to pollution sources.

Thank you.

BOARD CLERK GARCIA: Thank you.

I will now pass it over to Katie for the in-person commenters.

BOARD CLERK ESTABROOK: Thank you.

We currently have 100 people with their -- that have turned in a request-to-speak card and wish to speak in person. We'll be showing a list of the next several commenters on the screen, so that you can be prepared to come down to the podium. But please note that we'll be alternating back and forth between the Zoom and in-person commenters.

So our first commenter will be David Barker. And you can use this podium here and you'll need to turn the mic on if it's not on.

DAVID BARKER: Is this good?

Thank you, Chair Randolph, Vice Chair Berg, and the entire Board for allowing me the chance to speak today. My name is David Barker. I'm the Energy and Environmental Activities Manager for the North American Subaru.

Subaru fully supports and electric net carbon -- net zero carbon future. Today's Advance Clean Cars proposal aims to set a very challenging path for the U.S. auto industry. Meeting its objectives in California and the U.S. -- or the 177 states will require significant action from all stakeholders to send clear signals to consumers that they can confidently embrace electric vehicle technologies.

There are very real challenges in meeting consumer demand for affordability, ease of charging, while at the same time overcoming existing global supply chain disruptions and limited access to critical minerals. And all of these challenges are amplified for smaller manufacturers like Subaru. Our path to achieving an all-electric future is different than larger OEMs. Our small size globally in terms of capital resources and having only five production lines across two manufacturing plants worldwide requires deliberate approach -- a more deliberate approach to achieving transformative change.

Subaru vehicles are uniquely affordable, efficient, off-road, capable products that contribute to a diverse and competitive market in California and the U.S. Our all electric future must account for our distinct differences in the market and provide us the ability to achieve the necessary scale for a hundred percent ZEV sales.

Today, we have the following requests. Subaru supports adoption of the proposal submitted by auto innovators. The requested chains are -- changes are reasonable and will help support long-term success of the program. And second given the monu -- monumental task in front of us, we encourage the Board to closely monitor EV market development in the coming years and consider establishing metrics to quantify its progress and be able to adapt accordingly.

Subaru will continue working with the Board and staff to ensure successful transition to electric -- vehicle electrification.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Steven Henderson.

There should be a button there.

STEVEN HENDERSON: There we go.

BOARD CLERK ESTABROOK: And then I'll just ask that everyone just leave the mic on during public comment.

Thanks.

STEVEN HENDERSON: Good morning. I'm Steve Henderson, Manager of Regulatory Compliance at Ford Motor Company and I thank you for the opportunity to provide comment today.

At Ford, we're proud of our partnership with California for stronger vehicle CO2 standards forged during a time when climate action was under attack. Now, this week Ford renewed its commitment to this partnership by intervening in a lawsuit to protect California's authority to set emission standards. We're committed to an EV future that includes everybody. And we're leading the electrification revolution with over $50 billion of spending through 2026. Turning to the rule, it's impossible to overstate the importance of the Advanced Clean Cars II Rule, and we support this rule.

We applaud the renewed focus on transportation equity and congratulate CARB staff on a skillful implementation of criteria emissions standards that are strong and achievable. We do have one suggestion that we feel could make the rule stronger. While we support the intent of the EV battery durability provision, we cannot support the provision as it is currently written. If implemented unchanged, this requirement will increase the cost and weight of EV vehicles sold in California with no new vehicle customer benefit. It will result in EVs for sale in California having less range at the same cost and weight as identical EVs for sale in other U.S. states. It will limit our ability to fully unlock features that provide electrical grid resiliency and it will force manufacturers to put limits on fast charging and V2X.

We share the goal of ensuring that customers can confidently purchase used EVs, but we believe there are ways to do this without adding cost and weight to new vehicles. If CARB proceeds with the implementation of the durability requirement as currently written, we respectfully request that a mod -- it be modified to initiate in data gathering only mode to void a negative impact on EV sales in California.

In closing, we'd like to reiterate our overall support for the rule and thank the CARB leadership, and Board members, and staff for allowing us to comment.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

BOARD MEMBER SPERLING: And I just -- and I would like to thank Ford for taking leadership in intervening on behalf of California in the -- regarding authority of California on -- with the Clean Air Act. Thank you.

BOARD MEMBER TAKVORIAN: I have a question, sir, Mr. Henderson. Sorry. I just wanted to ask what your projection of your -- the use of the equity credits would be over the next 10 years?

STEVEN HENDERSON: I'm sorry. I don't have that, Board Member Takvorian. We do plan to use them, but I don't have a projection for a number.

BOARD MEMBER TAKVORIAN: Think you could get one?

STEVEN HENDERSON: I'm sure I could.

BOARD MEMBER TAKVORIAN: That would be great. Thank you.

STEVEN HENDERSON: Thank you.

BOARD CLERK ESTABROOK: All right. Kevin Curley.

KEVIN CURLEY: Good morning, Chair Randolph and members of the Board. My name is Kevin Curley and I am the manager of Vehicle Emission Certification and Compliance for Mazda Northern American operations.

As a member of the Alliance for Automotive Innovation, we support their comments today. Mazda is a smaller independent automaker not owned by a larger brand and sells light-duty vehicles globally with U.S. operations headquartered in Irvine, California. Despite being a smaller company, Mazda was able to achieve the highest fleet average fuel economy of all OEMs for five years in a row.

The proposed ZEV sales percentage standards in the Advanced Clean Cars II regulations are incredibly challenging and will require tremendous resources from OEMs in order to transition to electrification. This transition is even more difficult for smaller companies like Mazda.

In addition to the already challenging annual ZEV percentage standards, extra requirements such as minimum range, battery durability, and limits on credit flexibility will add unnecessary costs and potentially decrease affordability of ZEVs. Separately, the proposed changes to ICE criteria emissions requirements could reduce the already limited R&D resources from electrification.

While some of the new test procedures may only require calibration changes to comply, we are concerned that others may potentially require additional hardware to achieve.

Finally, California has made progress on supportive measures for ZEVs, such as charging infrastructure, building codes, and purchase incentives, but more is needed and other states are lagging far behind. Without these complementary measures to accelerate customer demand in the Section 177 states, it will be very difficult to increase ZEV percentages from their current low levels.

Thank you for your time.

BOARD CLERK ESTABROOK: Thank you.

Sarah Somorai.

SARAH SOMORAI: Hello. Chair Randolph, Board members, and CARB staff, my name is Sarah Somorai and I'm the Manager of Ecostrategy in testifying on behalf of Hyundai Motor America.

First, I'd like to thank staff for their efforts in bringing this item to you today. Next, as a member of the Alliance of Automotive Innovation, Hyundai fully endorses its comments and would like to draw specific attention to those relating to flexibilities and durability concerns. Hyundai is committed to clean vehicles for all Californians.

Our parent, Hyundai Motor Company, has made early and significant investments into battery and hydrogen fuel cell technology. As such, we have a competitive lineup of hybrids, plug-in hybrids, battery and fuel cell electric vehicles to meet every consumer's needs.

We full support the intent of CARB's ACC II proposal. That does not mean that meeting the proposed ZEV sales requirements will be easy. In fact, it will be extremely challenging not only in California, but especially in states that adopt ACC II, as they are much further behind in ZEV adoption, infrastructure, and incentives. Hyundai commits to innovate, invest, and advance our technology to support the State's efforts to deliver cleaner air to Californians. But the auto industry is just one piece of the puzzle.

Key public policies must be in place to support the regulation. These include increased infrastructure funding for public, in-home, and multi-unit dwelling charging, as well as hydrogen fueling stations, expand vehicle incentive programs, especially for lower income Californians, and consumer education to increase market acceptance.

In addition, we request that CARB support legislation that is technology neutral to support both battery and fuel cell electric vehicle and work with other stakeholder agencies to do the same.

Oh. We applaud CARB for working closely with the environment justice advocates.

Oh, my time is up. Okay. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Jim Verburg.

JIM VERBURG: Good morning, Chair Randolph, members of the Board. I'm Jim Verburg, Fuels Director with WSPA trade organization representing companies in California and for other western states that provide biotransportation fuels and other energy supplies. In California, member companies employ over 360,000 people, while making sizable contributions to California's economy and continuing to invest in emissions reduction technology and renewable fuels to reduce transportation sector emissions.

We believe that California should be able to choose a vehicle technology, including electric vehicles, that best fits their needs, based on availability, affordability, personal necessity. In line with that belief, we want to brief you on the issues with the proposal.

The proposal includes shortcomings and inconsistencies with the analysis regarding technological demonstrations, environmental assessment, cost effectiveness, and lack of alternatives analysis, and legal concerns inherent with phasing out an entire industry. We would instead recommend a technology-neutral performance-based approach that allows for innovation and reduces emissions in the transportation sector. This includes fairly accounting for life-cycle emissions for both traditional vehicles and electrical vehicles. The Ramboll study, attached to our letter demonstrates that performance-based standards transitioning to lower emission liquid fuels could achieve similar life cycle emissions reductions at a faster rate without rebuilding the entire transportation system. We are concerned with California becoming overreliant on just one system, electricity, as the grid is expected to struggle through another summer. The proposal falls short of performing the analysis necessary.

We are concerned that CARB does not -- has considered the impact of transitioning the transportation sector. By way of example, the EO calls for a transition roadmap to be adopted by a labor workforce development agency by July of 2021. This has not happened. We understood that this would require a group effort. By pushing forward CARB risks significant impacts to our most vulnerable populations.

Lastly, at minimum, we strongly encourage CARB to incorporate cost containment mechanisms.

Than for your time.

BOARD CLERK ESTABROOK: Thank you.

Jenny Gilger.

JENNY GILGER: Chair Randolph, Vice Chair Berg, and members of the Board, my name is Jenny Gilger and I'm a Vice President with American Honda Motor Company based in Torrance, California.

For decades, Honda has made great strides in reducing our environmental footprint, improving the efficiency, carbon profile, and tailpipe emissions of our vehicles. We have also invested in, designed, developed, and produced electric vehicles and we agree with this Board. The ultimate goal was a widespread, affordable, zero-emissions fleet.

We also have steadfastly supported California's right to regulate, even as recently as this week when choosing to intervene in the case of Ohio versus EPA. Make no mistake, however, the regulations being brought to this Board today, particularly in the program's early years, are extremely challenging. This is especially true in the Section 177 states, where adoption rates remain well below those found in California, even with committed actions by states to help foster EV markets.

From a program viability standpoint, there's reasonable cause for concern. According to a market analysis we conducted, traditional automakers will in just three years, need to increase electric vehicle sales between 5 and 20 times current levels, depending on the state, simply to meet the 2026 requirements.

This is a profound expectation placed on regulated parties, and ultimately on new vehicle buyers in those states. In the meantime, flexibility, such as those -- such as the use of converted credits averaged over a five-year window, rather than a per year cap, will remain vitally important. It's also critical that regulated parties be permitted to use flexibilities in a way that makes sense for their unique products and individual compliance strategies.

Honda shares the agency's view that all customers should have access to clean mobility. And given the current market challenges, tying flexibility access to the use of environmental justice credits, or for that matter, any programmatic element would be inappropriate at this juncture.

In summary, a thoughtfully designed program with sufficient flexibilities and necessary non-discriminatory complementary measures will be critical to achieving our shared goal. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Jeff Wuttke. And apologies if I mispronounced your name.

JEFF WUTTKE: Good morning, Chair Randolph and members of the Board. My name is Jeff Wuttke and I am the California Regulatory Programs Lead for Stellantis. Stellantis is a global automaker formed in early 2021 by the combination Fiat/Chrysler and the Peugeot Group, whose U.S. product lineup includes Chrysler, Dodge, Jeep, Ram, Fiat, Alfa Romero, and a Maserati brands.

Stellantis is committed to an electrified future, investing more than $30 billion through 2025. We plan to produce over 25 new battery electric vehicle models in the U.S. representing 50 percent of our nationwide sales by 2030. We clearly support the goals of the ACC II Regulation, increasing electrification, and lowering criteria emissions. Stellantis is committed to doing its part by making exciting electrified vehicles that consumers want to buy. But we are also asking for help from government, energy providers, and other stakeholders to achieve ACC II's ambitious volume targets with market-transforming actions, including improving EV affordability with incentives that provide access to more consumers, creating a readily available public charging infrastructure that lowers consumer anxiety, creating a robust supply chain to provide the needed batteries and EV components, and educating consumers on the benefits of EVs with more programs like Veloz and NESCAUM. These actions are essential and falling short will risk the success of the most ambitious electrification regulation California and Section 177 states have ever adopted.

Stellantis will continue to work constructively with CARB staff on a few remaining open points and aspects of the proposed rule. These include ensuring alignment of this rule with the United Nations rules on battery durability, technical requirements that don't risk the affordability of PHEVs, and in-use test procedures that allow for efficient ICE technology, while medium-duty trucks continue to progress towards electrification.

Thank you for the opportunity to provide comments today.

BOARD CLERK ESTABROOK: Thank you.

Steve Douglas.

STEVEN DOUGLAS: Thank you, Chair Randolph, members of the Board. I'm Steve Douglas, Vice President of Energy and Environment with the Alliance for Automotive Innovation. We represent car companies that produce about 98 percent of the new vehicles in the United States as well as some of the world's leading Tier 1 suppliers and technology companies.

I'd like to be clear the Advanced Clean Cars II regulations that you're reviewing today, these are the most sweeping transformative regulations in the history of our industry. There's no question about it. They will have a vast effect on the U.S. economy, or on at least a vast swath of the U.S. economy and the California economy, and they change the way people have lived, worked, and played for over a century.

Moreover, the success of these regulations, as you've heard, depends on a lot more than these regulations. It depends on more than the vehicles that are produced from them. The success will require addressing charging and fueling infrastructure, vehicle and fuel costs, critical minerals, supply chain, labor, and customer education.

Some of these are within our control, us, the industry, and the Board. Most of them are not. Just to be clear though, from the industry's perspective, electrification is our focus. Automakers are committed to leading this transformation and have plans to spend a half trillion dollars by the end of this decade on electrification. But these requirements are incredibly aggressive and California, as you've heard, EV sales have to triple, and most of the Section 177 states they have to go up by sevenfold in the next three model years.

So we will work to meet whatever you adopt, but again, they're extremely challenging even in California, and in some states they may not be possible, in some of the states that follow California.

Finally, our association members are committed to working with the equity community to implement -- identify and implement --

BOARD CLERK ESTABROOK: Thank you, Steve.

STEVEN DOUGLAS: Thanks.

BOARD CLERK ESTABROOK: Thanks.

Next, will be Amy Lilly.

AMY LILLY: Good morning. My name is Amy Lilly with Mercedes-Benz Research and Development North America. Mercedes applauds CARB's efforts to champion the ZEV market and the staff's time and hard work in developing these rules.

The effort has paid off with nearly every automaker announcing plans to electrify their fleets. In fact, Mercedes plans to be carbon neutral by 2039, and all of our vehicles will be electrified by the end of the decade, where the market is ready.

Despite this optimism, complementary measures are needed. California and the Section 177 states need to ensure adequate infrastructure and incentives while working on outreach activities.

In addition to the detailed comments we have submitted, I would like to address two specific topics, providing flexibility in meeting datastream requirements to maximize ZEV sales and aligning battery durability provisions to global standards, which will provide customer assurance about the life of the battery.

First, despite our efforts to meet or exceed customer's EV expectations and comply with the proposed ZEV assurance measures, we may not be able to certify and sell our EVs in California, unless they meet the data standardization requirements.

Our EVs are high quality luxury vehicles, which will far exceed the regulated 200 miles minimum range. We are also offering class-leading warranties, and our battery durability will meet the minimum performance requirements in the UNECE GGR. We are committed to this transformation.

Meeting these requirements, however, will involve both lead time and financial investment. While CARB proposed a two year phase-in, additional lead time is needed to update our products. They are not -- they are not final these -- these new requirements and they differ from current EV communication protocols, and they require new fault code reporting. These elements may limit ZEV penetration without sufficient flexibilities for vehicles that meet all of the other quality requirements.

Therefore, we ask that CARB allow flexibility in the form of certification without credits for ZEVs, if they comply with all quality assurance measures.

BOARD CLERK ESTABROOK: Thank you.

All right. Tom Cackette.

TOM CACKETTE: Good morning. I'm Tom Cackette and I'm representing the more than three million members of the Environmental Defense Fund today.

The regulation that you're considering will establish CARB as a leader for the country and I think the world by demonstrating a cost effective and defined pathway to all zero-emission passenger vehicles. The increasing number of ZEVs and ZEV models you see on the road today is visible evidence that the transition to 100 percent zero-emission vehicles has taken off.

The opportunity facing the Board today is to grab this trend, accelerate it, and help assure it stays on a path to a hundred percent ZEVs by 2035. This is time for bold and decisive action, given the enormous stakes.

We have two requests for you today. The first request addresses the equity provisions of the proposed rule. The current staff proposal for equity is entirely voluntary and could result in little or no OEM participation. This is an outcome that must be avoided.

The EJ community has offered an approach that would increase the probability of OEM participation while meeting ARB's need for a non-mandatory program. This approach is not reflected in the proposal in front of you today.

Our request is for you to direct the staff to strengthen the equity positions for your consideration at the August meeting. Our second request is to develop a greater level of ambition for 2030 ZEV sales. Our written comments present data on how costs will be lower than staff projected and every vehicle on the road results in fewer CO_2 emissions remaining in the atmosphere for hundreds of years. So more and earlier is better for the climate.

Finally, we've looked at the 13-day -- or 15-day proposals and some of them raise concerns that they may reduce the benefit of this rule. And EDF will provide input during the comment period and I hope your staff will too. Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

And it's been 30 minutes, Chair, so we'll go ahead and close the sign-ups. And then I'll pass it back to Lindsay to do a couple in Zoom.

BOARD CLERK GARCIA: Thank you.

The next five remote commenters will be Scott

Brierley, Anthony Bento, Chip Sharpe, Rasto Brezny, and Kevin Brown.

So Scott, I have activated your microphone. Please unmute and you can begin.

SCOTT BRIERLEY: Great. Thank you very much, Lindsay. Good morn -- good morning. This is Scott Brierley. Thank you, Chair Randolph and CARB members for this opportunity to speak with you. My name is Scott Brierley and I'm the Director of Automotive and Strategic Partnerships at Fermata Energy, a V2X bidirectional charging services company, which has over 10 years of experience with vehicle-to-grid and vehicle-to-building applications.

We understand that CARB staff is interested in the benefits of bidirectional charging, but was not able to incorporate this into the ACC II Regulation. We respectfully ask that the draft ACC II Board Resolution be amended to ask CARB staff to conduct a technology review and return in about two years with recommendations on incentives and possible regulations that CARB could enact to promote or require bidirectional charging in ACC II and potentially in other CARB programs for cars, trucks, and buses.

We believe that the CARB board creates game-changing policies that can help solve the chicken and the egg problem with bidirectional charging. In the nearer term, CARB's upcoming rulemaking on the Low Carbon Fuel Standard should include credits for discharging EVs not just for charging. As PG&E's CEO Patty Poppe highlighted in an interview with the LA Times in October 2021, EVs on the road in PG&E's service area have about 6,700 megawatts of capacity, which equates to the capacity of approximately three Diablo Canyon Nuclear power plants.

By leveraging EVs -- or bidirectionally enabled EVs to power homes and buildings, flex alerts could be avoided. Furthermore, with the EV volumes increasing in the coming years, it will be critical more than ever to rely in part on bidirectionally enabled EVs to support the grid, rather than being just a power draw.

So in conclusion, I would like to thank you again for your time today. California has historically been a leader in establishing policies that support these types of emerging technologies and CARB has a unique opportunity to continue in this trend. If Fermata Energy can help CARB with any questions or provide further clarity, please let us know.

Thank you.

BOARD CLERK GARCIA: Thank you.

Anthony, I have activated your microphone. Please unmute and you can begin.

ANTHONY BENTO: Thank you for the opportunity to comment. My name is Anthony Bento and I represent the California New Car Dealers Association. As we mentioned in our written comments, the California New Car Dealers Association supports our state's leadership in furthering the world's transition to zero-emission vehicles and our dealers are stepping up and making unprecedented investments in their workforce and facilities to successfully sell and service ZEVs, but dealers cannot sell vehicles they do not have.

We are concerned that global shortages of key materials necessary to construct electric vehicles, such as lithium, may greatly impact the supply of zero-emission vehicles during the ACC II compliance period.

Indeed, the CEO of EV manufacturer Rivian recently commented that current vehicle supply constraints related to the semiconductor shortage may be quote, "A small appetizer to what the industry is about to feel on battery sales over the next two...

BOARD CLERK GARCIA: Anthony, are you there?

ANTHONY BENTO: Oh, I'm sorry. I thought I was un -- can you hear me now?

BOARD CLERK GARCIA: Yes, we can.

ANTHONY BENTO: My apologies.

Thank you for the opportunity to comment.

My name is Anthony Bento and I represent the California New Car Dealers Association.

As we mentioned in our written comments, the California New Car Dealers Association supports our state's leadership in furthering the world's transition to zero-emission vehicles, and dealers are stepping up and making unprecedented investments in their workforce and facilities to successfully cell and service ZEVs, but dealers cannot sell vehicles they do not have.

We are concerned that global shortages of key materials necessary to construct electric vehicles, such as lithium, may greatly impact the supply of zero-emission vehicles during the ACC II compliance period. Indeed, the CEO of EV manufacturer Rivian recently commented that current vehicle supply constraints related the semiconductor shortage may be quote, "A small appetizer to what the industry is about to feel on battery sales during the next two decades," end quote.

Experience during the pandemic shows that a decline in new vehicle supply directly impacts the affordability of both new and used vehicles. This harms low and moderate income consumers most as vehicles become less accessible and affordable and it delays the retirement of the oldest and most polluting vehicles on the road.

In light of these concerns, we ask that CARB incorporate a formal mid-term review process into its Advanced Clean Cars II regulations. A mid-term review will allow CARB officials to evaluate whether the ACC II regulations are on track and providing Californians access to both clean and affordable transportation.

Thank you.

BOARD CLERK GARCIA: Thank you.

Chip, I have activated your microphone. Please unmute and you can begin.

CHIP SHARPE: I'm Chip Sharpe, resident of Northern California. Thank you for your work to Advanced Clean Cars. My wife and I purchased our first EV in 2014 in order to protect our planet. We bought our second EV in 2016 and will never again purchase an ICE. We felt blessed to be able to ride in such a comfortable, safe, and responsive car. We also felt blessed to have had enough money to buy two expensive cars that we could plug in at home ready to roll each morning. We became vocal advocates for EVs, eager for everyone to enjoy similar safety, cost savings, and convenience.

We offered to share our California rebate with friends and acquaintances so that they could purchase a new or used EV. However, at that time, the cost was still out of their reach.

Even with today's advent of more affordable models, widespread adoption of EVs is going to require government and community support. This includes requiring manufacturing and infrastructure corporations to focus on providing EVs in low-income neighborhoods that suffer the most from tailpipe emissions. For those living near poverty levels, larger rebates, manufacturer discounts, and low or no interest loans will be necessary. Home charging must be facilitated for apartment dwellers. To assuage range anxiety, outlets should be provided at workplaces, shopping areas, and along city streets.

This is a matter of life and death. Putting safer vehicles on our roadways and preventing the thousands of deaths that now occur every year as a result of polluted area. Thank you for requiring the assistance of major corporations and achieving our goal to making EVs available to everyone.

BOARD CLERK GARCIA: Thank you.

Okay. Rasto, I have activated your microphone. Please unmute and begin.

DR. RASTO BREZNY: Good Morning, Chair Randolph and members of the Board. I'm Rasto Brezny, the Executive Director for the Manufacturers of Emission Controls Association.

MECA has submitted written comments in support of the proposal and today will highlight several areas where the proposal could be strengthened. MECA is a non-profit trade association of the world's leading suppliers of technologies for clean mobility. This is a tremendously exciting time for the automotive industry, given the diversity of advanced technologies that are being deployed on vehicles.

MECA members are supplying the cleanest engine efficiency and after-treatment technology for conventional cars, while also commercializing batteries, electrics motors, fuel cells, and power electronic for electric cars such as the next generation 800 volt architectures that will make electric vehicles more efficient, with longer range, and faster charging capability.

The regulation bridges the transition from predominantly combustion cars sold today to all electric cars sold in the future. To accelerate emission reductions and minimize the environmental impact of transportation, we must not only increase EV penetration, but also tighten emission standards on the millions of combustion cars that will be produced.

There is three areas where technology exists to strengthen the proposal: CARB should align the US06 PM limit with the FTP limit in both stringency and phase-in to take advantage of existing technologies that already exist in Europe, China, and India; strengthen -- strengthening medium-duty vehicle PM and NOx standards, based on engine and after-treatment technology already used on similar vehicles today; increase the 20 percent compliance cap for plug-in hybrid electric vehicles while strengthening the evaporative canister capacity for hybrids to prevent backsliding on VOC emissions.

Adoption of an ambitious ACC II rule will provide regulatory certainty to support continued investments in the transition of transportation. I thank staff for their dedication in bringing you this proposal and for this opportunity to provide comments.

Next, my colleague Kevin Brown will expand on the available technologies to achieve the goals of the proposed rule.

Thank you.

BOARD CLERK GARCIA: Thank you.

Kevin, I have activated your microphone. Please unmute and begin.

KEVIN BROWN: Good morning. I'm Kevin Brown WITH MECA. I'd like to highlight the variety of existing technologies that can be used by vehicle manufacturers to meet even tighter light- and medium-duty standards than those currently proposed. With regards to light-duty and medium-duty particulate matter proposed standards. By

2023, vehicles in the European Union, India, and China will already be equipped with advanced fuel injection and particular filters in response to particulate number standards approximately equivalent to half a milligram per mile. This limit is already being met by vehicles equipped with these technologies, which are being exported from the United States to these markets.

We believe that an aligned FTP and US06 PM limit in both stringency and timing achievable and will reduce ultrafine particles by 99 percent, as well as eliminate carcinogens, toxics, and climate forcing black carbon by similar amounts. With regards to medium-duty vehicles, some of today's medium-duty vehicles already have emissions that are well below the proposed standards. Because of this fact, we suggest that staff set more stringent NOx and PM standards that reflects -- reflect best-in-class compliance.

MECA members are commercializing a full suite of technologies in response to the omnibus heavy-duty standards. And these same technologies can be readily applied to medium-duty chassis-certified vehicles as well. Next generation catalysts deployed on high-porosity substrates and particular filters combined with advanced engine efficiency thermal management and hybrid powertrain technologies to allow chassis-certified gasoline and diesel medium-duty vehicles to meet more stringent standards over all duty cycles.

With regards to minimum ZEV performance requirements for light-duty plug-in hybrid vehicles, our sample -- example calculations show that raising the 20 percent PHEV sales cap until at least 2030 would further maximize CO2 reductions while providing a greater number of consumers with an improved assurance of a wider variety of affordable ZEV vehicle choices, while charging infrastructure and critical battery mineral supply chains develop.

In closing, I'd like to make sure that our industry remains committed to delivering cost effective technologies.

Thank you.

BOARD CLERK GARCIA: Thank yo. I'll now turn it over to Katie for continuing our in-person commenters.

BOARD CLERK ESTABROOK: Thank you. So the list that you can see up on the screen, the next commenters, I will be calling on you. If you want to go ahead and make your way down so -- just for the sake of time, maybe the next couple can come line up here by the stairs.

So first will be Greg Potter.

GREG POTTER: Is this on?

There we go. I can still say good morning. My name is Greg Potter and I'm the CTO of ETI, the Equipment and Tool Institute. ETI is a non-profit automotive aftermarket trade association that represents over 90 percent of automotive diagnostic tool manufacturers in the United States.

ETI applauds the efforts of the Air Resources Board in its drive to enhance public acceptance of zero-emission vehicles. Paramount to this effort is having current and future owners full knowledge of the status of their powertrain and understanding that their vehicle can be repaired properly at the service centers of their choice.

The access to vehicle repair information standardized diagnostic data, tools, and training to independent repair facilities, and tool equipment manufacturers, is essential to the safe and proper repair of ZEV vehicles in the automotive service network. The ACC II proposal will help in that effort.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Simon Mui.

SIMON MUI: Good afternoon, Chairwoman Randolph and members of the Board. I'm Simon Mui, Director of NRDC's Clean Vehicles and Fuels Group. Thanks for the opportunity to testify today and to staff and the Board for all their hard work over the past couple years.

This next phase of the Advanced Clean Cars standard is really one of the most significant rules the Board has looked at the past decade, if not over its 55 year storied history. We strongly support ARB's goal of hitting a hundred percent sales. And there's a lot of good elements in this proposal. But the path up to 100 percent is really critical. And in the spirit of gardening ZEV garden analogy, there's some excessive flexibilities that need to be weeded out.

First is the reintroduction of the fuel cell travel that allows fuel cells in California to count multiple times across the states. We opposed these 10 years ago as phantom credits and we oppose them again. The second crediting issue is the relaxation of the guardrails on the use of historic credits, the 10 percent -- the 15 percent.

On -- the good news is that we do see ARB's proposals as actually being pretty conservative here in California for a number of reasons. And you could actually tighten it up in the 2030 time frame to 75 percent. The reason is the fact that California has announced over $10 billion in proposed ZEV investments, the largest amount ever by a subnational government. That's a lot of feed and fertilize to go around.

Europe and China also, we only need to look over there. They just adopted strong standards before us and have now leapfrogged California in terms of sales, and three to five times more models available there than here.

So let's make sure we're ambitious with ramping up and tune-up the crediting flexibility. The proposed resolution by the California Clean Cars Campaign that will be presented will help with these issues as well as the equity provisions.

Thank you to ARB Board and staff for your work.

BOARD CLERK ESTABROOK: Thank you.

Chuck Shulock.

CHUCK SHULOCK: Good morning, Madam Chair, Board members. I'm Chuck Shulock, a retired CARB staffer now working as a consultant for NRDC on ZEV issues. While at CARB, I led the staff teams on the 2001 and 2003 ZEV rulemakings. So let me start by also acknowledging the historic nature of what's before you here.

The ZEV Program has had fits and starts, delays, rollbacks, trade-offs, and lots of controversy. But through it all, the Board has maintained consistent pressure on manufacturers to advance the technology. That pressure has paid off. Somewhere along the way, the notion of 100 percent zero went from being a distant hope to quote Steve Douglas, the industry's focus. It's pretty amazing.

Which brings us to today. Simon Mui and other speakers have outlined how the proposal could be improved. I'm going to focus on feasibility in the 177 states and how that relates to the recommended changes.

We all know that sales are lower outside of California. The staff proposal takes that into account, and many of its flexibilities address these disparate starting positions. The staff analysis didn't project 177 state stringency. I've looked at various scenarios and concluded that a reasonable estimate is that ZEV sales in the 177 states would need to be about 21 percent in 2026 rather than the 35 percent nominally required under the regulation.

U.S. EPA has just strengthened the national standards for GHG tailpipe emissions, that will get -- which will get much of the way there. Moreover, the real issue is not the suitability of ZEV technology, but rather the availability of complementary policies or equity programs that take advantage of these provisions. The policies are needed, but the best way to get them in place is not to kick the can down the road, but rather to provide a strong incentive. Concerns about 177 states should not limit your ambition here.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Bill Magavern.

BILL MAGAVERN: Good morning, Madam Chair and members. Bill Magavern with Coalition for Clean Air. Good to be with you in person after a long gap and especially glad that the podium still goes up.

(Laughter.)

BILL MAGAVERN: It goes down too, so other speakers can lower it if you want.

I think that this Board's greatest successes in its storied history have been improvements in vehicle engine technology. From catalyst to greenhouse gas standards, to ZEV standards, CARB has really been responsible for making our cars on the road today much cleaner than they would have been otherwise. And we salute the Governor and the Board for now taking the steps to transition all sales to ZEVs by 2035.

I think your deliberation should be guided by two overriding principles. One is to maximize the emission reductions. We're looking at unfortunately probably another summer of smog and smoke from wildfires. And it's urgent that we get those emission reductions. And second is providing clean mobility for all Californians, those who own cars and those who don't own cars. We need to democratize the electric vehicle and clean mobility in general. So for those reasons, we urge you to get to 75 percent of new sales being ZEVs by 2030. We can do it and we need to do it.

Also, that you not be too generous with credits. I agree with Simon Mui's comments in opposition to the relaxations that are proposed in the 15-day changes. And you should ensure that the automakers participate in the equity incentives without sacrificing emission reductions. I agree with Board Member Takvorian on that point.

We support the proposed strengthening of tailpipe standards, which is important, and also the battery warranty requirements to ensure consumer confidence in ZEVs and urge that you keep the durability requirement at 80 percent.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Anne-Marie Otey.

ANNE-MARIE OTEY: Good morning. I'm Anne-Marie Otey. I'm representing 140,000 members of 48 building trades, local unions, and district councils in Los Angeles and Orange counties. We join you at CARB in the goal to reduce air pollution in California, but for several reasons.

The proposed policy to drastically cut and end the sale of gas powered vehicles is not the way to do that. It is too much change too fast. Your own report says that we will loose a net 40,000 jobs. And there's no guarantee that other jobs generated by this policy will bring the wages, benefits, and security of our current building trades union jobs.

The policy neglects the huge challenge of building enough ZEVs to meet your requirements. Over the next 15 years, the mining and extraction system in the U.S. will not produce enough lithium for all the batteries needed. This will create scarcity, which means punishing high prices for Californian working families.

In addition, ZEVs are not the sole answer to our environmental woes. They still create break and tire dust. They have the same power to kill in crashes that gas vehicles do. We urge you to make an overall paradigm change. Double the amount the State gives to fund public union-built mass transit. That is a visionary answer. Decreasing our dependence on passenger vehicles by creating thorough and safe mass transit to supplement private vehicles. We also ask that when California subsidizes the sale, lease, and charging of ZEVs, that it only finance those that have been built union, in a union built facility. That is one big step toward keeping good union jobs in California.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

CHAIR RANDOLPH: Board Clerk, I just wanted to note, we will plan on taking a lunch break at 12:15, so we'll do some commenters and then we'll plan on a break at 12:15.

DANIEL BARAD: Good afternoon, Chair and members. Daniel Barad on behalf of Sierra Club California and our 500,000 members and supporters throughout the state. Thank you for the opportunity to comment.

The propose Advanced Clean Cars II Rule is too weak as drafted. And before it can be adopted later this year, we urge the Board to strengthen the ZEV sales requirements to not include further flexibility that allows certain OEMs to drag their feet on ZEV adoption and to ensure that the rule is equitable.

For the state to meet its federal air quality obligations and to do its part to slow the climate crisis, we are going to need to significantly decrease emissions in the light-duty transportation sector. And this rule is California's hope -- best hope of doing just that.

We applaud and support the proposed endpoint of 100 percent ZEV sales by 2035. However, California can and must set bolder targets in the years leading up to 2035. Every car sold will be on the road for more than a decade. So each year, with lower targets, means we leaving GHG and NOx reductions on the table for years to come.

We believe that the sales requirements should be increased to at least 75 percent in 2030. This is more in line with what CARB's own analysis in the Mobile Source Strategy shows is necessary to achieve federal air quality standards. Along those same lines, CARB cannot afford to weaken the sales requirements any further by adding additional credit flexibilities as outlined by my colleague NRDC. The results of added leeway is continued unhealthy air and a less livable planet.

Finally, the proposed equity components of the rule are too weak as they are voluntary and would count against the overall stringency of the rule. These components must be made mandatory or at least constructed in a way that strongly incentivizes the placement of ZEVs in frontline communities.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Jade Northrup.

JADE NORTHRUP: How do I make this thing go up?

I hear rumors. Okay. Thank you.

Hi. My name is Jade Northrup. I work for Pixar Animation Studios in Emeryville as a pipeline supervisor. And I'm a volunteer with Extinction Rebellion, San

Francisco Bay Area. Thanks for the opportunity to speak.

I want to start by mentioning that the National Center for Environmental Information states that the average cost from climate related natural disasters was up to $14.2 billion per year in California alone by the end of 2021. That's up from about 0 to 2 billion for all previous decades on record. Let that sink in. Each year, we're racking up more damages from climate related disasters in California than we had during entire previous generations. Those numbers are only going up.

In terms of economic consequences of pollution, I can't think of a more dangerous threat to our health, environment, and prosperity than continuing carbon emissions at present levels any longer than we have to.

According to the CEC, California's transportation sector accounts for 50 percent of the state's greenhouse gas emissions. No other section is poised to make as big an impact as quickly. I urge you to strengthen the ACC II rule to a hundred percent clean cars by 2030 with mandatory equity provisions. Otherwise, existing market forces could outpace credits available and actually incentivize slowing down delivery of ZEVs and eliminate benefits from manufacturers from participating in the voluntary equity programs, if they outpace credits.

I have friends in their 20s and 30s that joke that their retirement plans are to die in a heat wave or to perish in a wildfire. It's pretty heartbreaking.

We need strong government direction to make the radical changes needed to confront the crisis. Consumers didn't want to switch to efficient light bulbs, but as government regulation drove the transition, supply on the shelves changed, consumers bought what was available, costs dropped, quality increased, and today's modern LED bulbs are superior to incandescents in pretty every way.

Another -- another point is in terms of gas prices, if we don't consider the social cost of carbon by 2030, the cost --

BOARD CLERK ESTABROOK: Thank you.

JADE NORTHRUP: -- benefit analysis is ZEVs won't make sense from consumers. Gas prices are going to be astronomic in 2030 and beyond.

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

JADE NORTHRUP: Thanks for your time.

BOARD CLERK ESTABROOK: Our next speaker --

(Applause.)

BOARD CLERK ESTABROOK: -- will be Craig Spooner.

CRAIG SPOONER: Good day, Chair and Board. My name is Greg Spooner. I'm a San Francisco resident, a business owner, scientist, and a climate organizer with

Scientist Rebellion and Extinction Rebellion.

I'm here to urge CARB to push for a stronger ACC II Program. The statements -- the program standard at present will not deliver the pollution cuts we need fast enough. Many Californians are breathing unhealthy air. You have the power and the responsibility to do something about it. You should prioritize the health and well-being of residents over fossil fuel companies and car companies. The way to do that is to move aggressively away from ICE cars.

While EVs and zero-emission vehicle adoption won't solve our pollution and climate crisis problems, we can agree that every ICE car sold in California worsens the climate crisis, degrades air quality -- oops -- degrades air quality and locks in years of emissions in fossil fuel infrastructure. I heard one CARB staffer describe this morning that part of the breathing rule -- part of the proposed rule provides breathing room for CARB manufacturers to meet fleet targets. Well, Californians are running out of breathing room themselves.

I strongly urge that the CARB adopt a rule that gets to a hundred percent EV sales by 2030. This is California's biggest chance to make a difference in air quality and climate. This plan does not get us there. The proposed rule lets too many polluting ICE cars be sold a decade from now. I know more than one Cal -- Northern California friend who has fled wildfires and a burning home in a gasoline powered car, the same kind of car that emits the pollutants that are heating our planet, drying out our forests, polluting our air, leading to more wildfires, and foreclosing a livable future for Californians.

ICE cars have to go and fast. Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Our next three speakers that you can see on here, I think, Chair, will end at around 12:15, if I just take these last few.

Leana Rosetti.

LEANA ROSETTI: Thank you, Board. My name is Leana Rosetti and I also am here representing Extinction Rebellion San Francisco Bay Area. And I come from Oakland. I'm a mother of two small children, so this carries a lot of personal weight for me as well.

We urge you that you make the voluntary equity requirements mandatory, otherwise it is likely that automakers will not need to do any of them and frontline communities get left behind with little access to ZEVs once again, all while being exposed to the most air pollution. CARB has authority to do this and it is especially justified, considering that the greatest emissions gains would likely be seen in low-income communities.

A 2020 study focused on older vehicles, found that those vehicles produced more NOx and other pollutants and that these vehicles are disproportionately located in low-wealth communities throughout California.

We also urge that you require that all vehicles be ZEVs by 2030. 2035 is too late. Scientists have repeatedly warned us that we no longer have time for incremental change, a rapid transition is necessary to avoid climate catastrophe. There's no room for new fossil fuel infrastructure.

Cars stay on the road for at least 15 to 20 years. So if we keep them on the road till 2035, that will make it impossible for California to reach its State and federal emissions goals. Roughly two million additional gas vehicles would be sold and that would be an estimated 69 million metric tons of CO_2 over their life times.

Ten million people a year already die from air pollution caused by fossil fuels. That's more millions of people than we're estimating will be dying from all of the climate disasters that will come and be worse and worse.

These climate disasters are locked in. It's something we can do to at least keep things from getting worse. Please make this rule stronger.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Kathy Kerridge.

KATHY KERRIDGE: Thank you. I'm Kathy Kerridge with 350 Bay Area Action. I live in Benicia, which is in the refinery corridor and we have the high asthma rates and the high cancer rates to prove it. I myself am a cancer survivor. I applaud your efforts to go forward with this. I mean, it really is significant what we're doing here in California, but we really need to do better and this is a unique opportunity that we have.

We need to act like we are at war, because we are. We are at war with rising CO2 levels and with air pollution. And just as when we went to war in World War II, we ramped up industrial production at a phenomenal rate. And I believe that American industry and the automakers can do it today.

We really need to have all ZEVs by 2030. 2035 is too long. If we're still selling ICE vehicles in 2035, that means they're going to on the road in 2050 and we cannot afford that. We are seeing increasing climate catastrophes. We have just experienced the highest 20C readings -- or CO2 readings in millions and millions of years. They're not going down. It is not going down. We need to recognize that we are at war. We know the benefits of EV vehicles. Anyone who has driven an EV vehicle like I have knows that they're great, they're cheap, they're quiet, they're cost effective. And making sure everybody owns them by 2030 is going to be a plus for California, not a minus.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Emily McCabe.

EMILY MCCABE: Hello. Thank you for allowing public comment today.

My name is Emily McCabe. I'm an intern with Environment California and I'm also a student studying Society, Environment, and Technology at University of California, Berkeley.

I'm originally from Chico, Northern California, and in 2018 the Camp Fire destroyed the town of Paradise 15 minutes away from my home. I recently visited and the community is still recovering four years later. In my time at school, I've done research that shows that climate change is driving increasing severity and frequency of wildfires in California. This shows that we need to transition away from fossil fuels as quickly as possible, which is why I support strengthening the EV sales requirement by 2030, and including equity provisions.

California has a duty to continue their leadership with ambitious rules that set the standard for other states to follow. In this way, we have a chance of addressing the climate crisis. Thank you very much.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Okay. Chair, that includes the commenters that will land before 12:15.

CHAIR RANDOLPH: All right. We will now take a lunch break for 45 minutes -- approximately 45 minutes. We'll return at 1 p.m. Thank you very much.

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

(Thereupon a lunch break was taken.)

AFTERNOON SESSION

(On record: 1:03 p.m.)

CHAIR RANDOLPH: We have returned from our lunch break and we are continuing public comment.

Board Clerk, will you please call the next commenters?

BOARD CLERK ESTABROOK: Thank you, Chair. I'm going to start with folks in the room. And so you can see the next few up here on the screen. If you can go ahead an start making your way down, maybe the next couple, just for time sake. And so the first will be Lori Pesante.

LORI PESANTE: Good afternoon. I know everybody is right after lunch, but do a little stretching. We've got this.

My name is Lori Pesante and I'm the Director of Civic Engagement for the Dolores Huerta Foundation. I live in Bakersfield and we're very lucky to have my son Darius with us today. I have a big box of nebulizer medication for him. I know I'm speaking the language of a lot of people who are here, because we don't just want to see the typical customer addressed, right? We don't just want to see the average person addressed. We want to see the most vulnerable. We want to see that the 78.6 percent of people in Kern County who are people of color and who live on the margins, that they are front and center here today.

And guess what, the first ten people who spoke today, they were from industry and from WSPA. I felt like I was at a Kern County Board of Supervisors meeting.

(Laughter.)

LORI PESANTE: Okay. I'm sorry, but, if we care -- equity is not an option. Let's be very clear about that. Equity is never optional, because when he turns 19 in 2030, I want us to see us at a hundred percent, a hundred percent zero-emission vehicles. Because we can't send our kids out to play, y'all. We can't -- my cousin is a PE teacher in Delano. Do you know how many days they have to be inside, and now with COVID and the other things, really just showing us so concretely how inequitable our systems are. We cannot settle for the bare minimum. We have to treat this like the Emergency that it is. And I am here to serve in any way that you need us to. My contact information has been provided to your clerk. Please reach out, because there are a lot of voices that aren't here.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

David Patterson.

(Applause.)

Okay. Laura Deehan.

LAURA DEEHAN: Are you supposed to leave your mask on or take it off. Take off. Okay.

Hello. My name is Laura Deehan. I'm the State Director for Environment California and the Environment California Research and Policy Center. Thank you so much for being here today and for all of your work to figure out how California can continue our leadership to address our air pollution crisis, and the climate crisis, and lead the country and the world in doing so.

So here in California, Environment California and Environment California Research and Policy Center released a report just last year that looked at the air pollution still affecting our state. And we found that 98 percent of Californians are living in a place that has more than 30 days of unsafe air, and really truly is still affecting everyone in our state. And so it's urgent that we address the air pollution crisis.

And, of course, we're all experiencing today once again with this really hot day, an example of the climate crisis that's already happening all around us, which underscores why it's so urgent that California continue to do as much as we can to push forward a clean transportation future.

And so with me today, I also brought the signatures public comment from an additional over 1,000

Californians from -- I looked. It was from Agoura Hills all the way down to Yucca Valley. So a lot of different parts of the state who are all joining with us today with California Clean Cars Campaign to support a more aggressive timeline to really continue to lead and make sure California is continuing to get more clean cars on the road much faster, at least 75 percent zero-emission vehicle sales by 2030, as well as 45 percent by 2026. So we're strongly in support of at least that.

Thank you so much for being here today and for listening.

Where should I leave the comments.

BOARD CLERK ESTABROOK: Thank you. Yeah, we'll take them.

Okay. Next will be that Tatanka Chris Bricca.

TATANKA CHRIS BRICCA: Tatanka Bricca here from Circle of 100. We have 100 volunteers working with the Romero Institute and Dolores Huerta Foundation, which has resulted in Senate Bill 1230 sponsored by Monique Limón.

I'm here to speak for the -- to just say that -- and I want to thank you for all your work. I've built coalitions my whole life. I know how difficult it is to -- with all competing interests not to lose sight of the ones that aren't here, that is the next seven generations. Not that you don't already do this, but just remembering the young ones and remembering that, yes, it was just last month that the North Pole went over 50 degrees Fahrenheit, south pole 70 degrees. Remembering that the famines and the et cetera around the world, but we are a fire refugees from the Santa Cruz mountains. We now live in Saratoga and don't pretend that we, California, are climate leaders, if we're talking 2035. That would have been fine 15, 10, maybe even five years ago, but we don't have 13 years to get this together. We just don't.

So remember the scientists that are telling us what's there. Remember the methane under the ice that is no longer under the ice that will put things way out of control, and remember by 2030 even if we accomplish everything we want to do by 2030, we are still going to suffer extreme water shortage, and extreme fire, and we're all going to have to live through it. So let's get it done and let's be the real climate leaders.

Thank you very much.

BOARD CLERK ESTABROOK: Thank you.

Dylan Jaff.

(Applause.)

BOARD CLERK ESTABROOK: And then again, if the next couple could come and stand here along these stairs, so that you're ready to go, that be would great. Thank you.

DYLAN JAFF: Hi. Good afternoon, Chair Randolph, and members of the Board. Dylan Jaff, Sustainability Policy at Consumer Reports. We thank you for the opportunity to comment on the proposed ACC II Rule and thank CARB staff for their work in putting together this proposal. We are pleased to see CARB's proposal to accelerate the transition to a hundred percent ZEV sales by 2035 and support CARB setting an aggressive ramp-up in stringency leading up to this date, as this measure will bring substantial emissions reductions throughout the state and helping alleviating transportation costs for many consumers.

Our analysis finds that based on today's average gas and electricity rates, battery electric vehicles in California can save an average of $2,600 in fuel and maintenance costs with an electric car, SUV, or pickup. Additionally, our 2021 survey of California consumer attitudes towards electric vehicles show that over 50 percent of Californians right now, either definitely plan to or would consider getting a plug-in EV as their next vehicle. California consumers are ready to drive this transition and the State should continue to lean into strategies that will get us there.

Additionally, CR thanks CARB for its emphasis on consumer protections, warranties, and assurances, as well as inclusion of right to repair provision. Consumer Reports supports these proposals as originally proposed, as these strong rules will give consumers, especially on the secondary market, piece of mind that their investments will maintain reliability throughout their useful life.

While the ZEV equity program proposed by CARB has merit, there is no certainty that provisions will be utilized by automakers as the proposed rule remains voluntary. Given what we understand about climate change and the disproportionate impacts on low-income and disadvantaged communities, emphasis needs to be placed on both increasing accessibility to ZEVs and reducing emissions.

For these reasons, CR expresses concern that the -- making the equity component of the rule voluntary would not truly accomplish the goal of increasing accessibility and could erode stringency of the rule.

Therefore, we are asking that CARB change the equity component of the rule from voluntary to mandatory. Short of a mandatory equity provision, the next best alternative would be to condition the use of non-equity credits to those OEMs participating in the equity component of the rule.

We thank CARB and CARB staff for the opportunity to comment and look forward to hearing back on the rest of our comments. Thank you.

BOARD CLERK ESTABROOK: Thank you.

Kalysta.

KALYSTA BARRIOS: Hi. My name is Kalysta Barrios and I'm an intern at Environment California. I'm also a College student at UC Merced, where in the Central Valley, there is some of the worst air quality. We're also affected by drought, wildfires, and extreme heat due to the climate crisis. I do believe that zero-emission vehicles will help reduce emissions, but this proposal is not strong enough or fast enough to transition the vehicle market as soon as possible.

I support at least 45 percent zero-emission vehicles by 2026 and 75 percent by 2030.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

Michael Lord.

MICHAEL LORD: Good afternoon. Mike -- Michael Lord from Toyota. It's been 25 years since Toyota launched the first mass market electrified vehicle, the Prius. Since then, we were one of the first with a retail battery EV, plug-in hybrid, and the world's first mass market -- mass produced fuel cell vehicle the Mirai.

If we learned one thing over 25 years, that we need a wide range of electrification options to lure customers away from ICEs. So it is committed to carbon neutrality, but we have concerns about the extremely challenging staff proposal and the tripling of the vehicle volumes in three years. We also remain concerned that there are too many without access to charging. This is why we continue to spend billions to develop fuel cell vehicles despite the fact that infrastructure is yet to keep up in pace.

We also believe there's a substantial market segment that could benefit from the EV range of PHEVs, coupled with a gasoline backup PHEVs provide. These market and infrastructure realities underpin our two requests today. First, we ask you to extend the interim 30-mile range requirement for Class 2A trucks to additional years through 2030 model year.

The carbon reduction potential for larger PHEV trucks is significant as the potential market demand among construction contracts, utility vehicles, emergency fleets, and consumers who need to tow a boat.

But our most pressing request involves fuel cell vehicles and the provision that allows fuel cell vehicles placed in California to count towards ZEV targets in other states that yet do not have hydrogen infrastructure in place. Working with Honda and Hyundai and listening to the concerns of the Section 177 states and staff, we've worked on an approach reflected in the staff's 15-day change today, that while limited, will still allow critical incentives to pursue fuel cell vehicles as a compliance option in California.

We believe this -- staff has a balanced proposal on this critical matter. We support it and thank them for helping us develop a pathway with your sister states to. Ensure that we other ought make con to expand fuel cell offerings as we accelerate the battery EV and PHEV markets.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

BOARD MEMBER KRACOV: That's good to hear. Thank you.

BOARD CLERK ESTABROOK: Ameen Khan. I do see someone by that name in Zoom, so you may have had to leave and transition. So I will activate your microphone. If you're with us in Zoom, you can go ahead and give your comment.

AMEEN KHAN: Hi. Can you hear me?

BOARD CLERK ESTABROOK: Yes.

AMEEN KHAN: Good afternoon, Chair Randolph and members of the Board. My name is Ameen Khan. And I am from California Environmental Voters, formerly the

California League of Conservation Voters.

I would like to thank the -- I would like to thank CARB for your efforts in the development of the Advanced Clean Cars II regulation and for the opportunity to provide public comments. We applaud Governor Newsom and CARB's leadership in treading a path for all new passenger vehicles sold in California to be zero emission by 2035.

The Advanced Clean Cars Rule is one of the most significant opportunities to turn the tide against the deepening climate crisis and toxic air pollution as cars remain the largest source of greenhouse gas emissions. Unfortunately, the current proposal starts slow and delays ambition in new zero-emission vehicle sales until the 2030s.

Time is of the essence and we simply cannot waste this critical decade. We need to be at the forefront with an urgently needed ZEV transition with aggressive early targets so that they are more affordable and widespread. To do this, CARB should strengthen the Advanced Clean Cars Rule in two ways.

One, revise the proposal to achieve a higher volume of sales so that at a minimum, it achieves 75 percent in 2030. Secondly, include strong equity standards that ensure that automakers increase affordability and access to ZEVs for disadvantaged communities.

The gravity of a climate crisis and the obligation to improve the air for all means that this is the time to double down on an accelerated and just transition from combustion vehicles to an all electric future.

California Environmental Voters looks forward to the adoption of a robust and equitable ACC II rule, so that all Californians can prosper from the environmental health and economy benefits that zero-emission vehicles provide.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

I'll now ask Lindsay -- Lindsay, go ahead.

BOARD CLERK GARCIA: Thank you.

Okay. I will go to the next five remote commenters. That will be Tom Van Heeke, Cristina Marquez, James Fahy, Joseph Mendelson, and Peter Slowik.

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

TOM VAN HEEKE: Good afternoon. Thank you, Chair Randolph and members of the Board. My name is Tom Van Heeke. I'm Senior Policy Advisor at Rivian Automotive, a California headquartered company. I appreciate the opportunity to speak today on the proposed Advanced Clean Cars II Rule. It is Rivian's mission to keep the world adventurous forever, with a focus on the design and development of all electric vehicles, including pickups, SUVs, and commercial vans.

Rivian strongly supports California's efforts to reduce transportation emissions and grow the ZEV market. The proposed ACC II Regulation is an important part of those efforts. We are supportive of the proposed regulation's direction, goals, and many of its provisions, but have specific comments and concerns regarding certain aspects of the proposal.

Number one, Rivian is conceptually supportive of the various ZEV assurance measures included in the proposal, but continues to be concerned about the proposed battery durability requirement. As written, we are concerned that the requirement will force OEMs to build in reserve capacity, increasing the vehicle cost while degrading performance. While Rivian agrees that transparent battery health and durability is important, the proposed requirements will work against ZEV market development. We suggest CARB adopt a durability requirement aligned with the UN global technical regulation or the initiate proposal in data gathering mode only.

Number two, it is also critical that ACC II preserve credit earning optionality for medium-duty ZEVs. Under current regulation, manufacturers have the options to earn credits under either ACC I or ACT but not both. We note and welcome the 15-day updates to the draft regulation that appear to ensure that that flexibility will remain.

Finally, we believe that there continues to be an opportunity to consider greater stringency in the program. This could be achieved through a combination of more ambitious interim requirements, such as a 2030 target of 75 percent, a pulling forward of the 100 percent ZEV sales target year, and/or phasing out credits for PHEVs, a transitional technology that will only serve a sustained and avoidable baseline of tailpipe emissions.

Thank you again to staff for their efforts and to the Board for this opportunity to speak. Rivian looks forward to the conclusion of this rulemaking.

BOARD CLERK GARCIA: Thank you.

Cristina, I have activated your microphone. Please unmute and begin.

CRISTINA MARQUEZ: Thank you. Good afternoon. Cristina Marquez, speaking on behalf of IBEW 569 and our 3,500 power professionals and electricians in San Diego and Imperial counties. With our coalition partners, we support a stronger more equitable Advanced Clean Cars Program. Accelerating EV adoption in California could provide a massive economic stimulus resulting in hundreds of thousands of new jobs, if achieved at rate in line with meetings that State's climate targets.

Further, IBEW members and journey level electricians certified with the EVITP, or Electric Vehicle Infrastructure Training Program, certification are ready to build out the necessary EV infrastructure to equitably and fully transition California to adopt zero-emissions electric vehicles.

Additionally, a strengthened Clean Cars Regulation and policy will incentivize job creation derived from continued development of renewable energy and upgrades to California's electrical grid. These electrical careers are good green union jobs, with six figure salaries, full family health care and pensions to be realized because California has taken the high road in requiring EVITP and apprenticeships in this regulation.

Please prioritize the health and well-being of all Californians by strengthening the program and include equity provisions to meet our climate and clean air goals, creat good green union jobs, and ensure that priority communities receive the benefits of pollution-free cars and lower GHGs.

We thank you CARB and CARB staff for all of your hard work. Have a good day.

BOARD CLERK GARCIA: Thank you.

(Applause.)

BOARD CLERK GARCIA: James, I have activated your microphone. Please unmute and begin.

JAMES FAHY: Thank you. Good afternoon, Chair Randolph and members of the Board. My name is James Fahy with Mercedes-Benz North America. Mercedes-Benz applauds CARB's effort and staff's time and hard work in developing these rules. Today, I'll focus on the proposed PEMS in-use standard for medium duty vehicles. Mercedes-Benz medium-duty vehicles, such as Sprinter vans are already tested at 63 to 75 percent of their GCWR, during certification.

We additionally provide off-cycle dyno tests at these GCWR ratios with repeat cycles, varied temperature, and at high altitude. Mercedes has been and will continue to provide CARB with PEMS data, which we believe satisfies CARB's stated intend with this new requirement. CARB staff indicated during workshops that the Mercedes Sprinter Van is not the target of the PEMS requirement, and that the rule is primarily focused on pickup trucks with high tow capacities and long periods of towing.

However, as written, the proposed regulation would impact this vehicle. Mercedes Sprinter vans are primarily used for last mile delivery applications, not for towing. Last mile delivery vehicles prioritize maneuverability and frequently reversed, rendering them incompatible with towing.

Mercedes-Benz therefore requests revisions to the tow capacity thresholds to accurately reflect vehicles intended impacted by this new requirement. As manufacturers modernize and electrify delivery vehicles, increasing cost and limited availability of new vehicles remain major concerns for end purchasers. The PEMS NOx emissions standard proposed is four to six times more stringent than SULEV 175 for model year 2027 proposing significant development challenges.

Since the Mercedes Sprinter is not CARB's primary target, we ask that CARB update the GCWR threshold from 14 to 16 thousand pounds. This modest increase in the threshold would still ensure consistency and emission control during towing without adding unnecessary costs for vehicles not intended to be included, like last mile delivery vehicles with low towing capacities.

Alternatively, CARB could include a ratio requirement that vehicle weight without and without towing capabilities to better define the applicability criteria, which would continue to target vehicles with large towing capacities, like medium-duty pickup trucks.

BOARD CLERK GARCIA: Thank you.

JAMES FAHY: Thank you.

BOARD CLERK GARCIA: Joseph, I have activated your microphone. You may unmute and begin.

JOSEPH MENDELSON: Can you hear me?

BOARD CLERK GARCIA: Yes, we can.

JOSEPH MENDELSON: You can hear me?

BOARD CLERK GARCIA: Yes.

JOSEPH MENDELSON: I'm sorry. I'm sorry. The computer phones here.

Thank you, Chair Randolph and Board members and CARB staff. I'm Joe Mendelson. I'm Senior Counsel with -- with Tesla. We have 45,000 employees in California, and invested millions in EV charging infrastructure, and are happy to be a leader in (inaudible). We've also (inaudible) with California to protect its authority. We support the proposal the goals of --

BOARD CLERK GARCIA: Joseph, you're fading out. We're having trouble hearing you.

JOSEPH MENDELSON: Okay. Let me.

I'm sorry. Can you hear me now?

BOARD CLERK GARCIA: Yes.

Okay. I believe we lost, Joseph.

BOARD CLERK GARCIA: Let's go to our next commenter. Peter. Peter, I have activated your microphone. Please unmute and begin.

PETER SLOWIK: Good afternoon. I'm Peter Slowik, Senior Researcher at the International Council on Clean Transportation. The ICCT appreciates the opportunity to provide testimony on California's proposed Advanced Clean Cars II regulations. Our comments are informed by the research and analysis of ICCT staff and focus on the following points.

First, our support for the proposed ACC II Regulation, second, international context, and third, technical observations on zero-emission vehicle compliance costs.

The ICCT strongly supports the proposed Advanced Clean Cars II regulation and recommends its adoption. As a member of the ZEV Transition Council and the International ZEV Aligns, California joins several of the world's major vehicle markets with a shared commitment to accelerate a global transition to ZEVs.

This transition is crucial for decarbonizing road transport and meeting State and global climate goals. ICCT modeling shows that limiting global warming to below two degrees Celsius will require that leading markets, including California, reach 100 percent new light-duty ZEV sales no later than 2035. The Advanced Clean Cars II Regulation will be key to achieving that goal.

On international context, California is not alone in its commitment to transition entirely to ZEVs. Ten countries and two other U.S. states have committed to entirely phase out the sale or registration of new combustion engine passenger vehicles by 2035, including New York and Washington State.

California's proposed regulation for 100 percent ZEV sales is aligned with other leading jurisdictions. On ZEV costs, CARB staff analysis shows clear and significant benefits associated with transitioning to 100 percent ZEVs. However, we believe that staff estimates of incremental battery electric vehicle costs are conservative. Our research finds evidence that electric vehicle costs can decline faster and cost parity reached sooner than estimated by CARB staff. We believe that the staff analysis of ZEV costs is conservative and that the annual ZEV targets in the proposed ACC II regulation are achievable and reasonable.

We submit our more detailed comments in writing. Thank you for the opportunity to comment today and to the Air Resources Board for continuing your important work on this topic.

BOARD CLERK GARCIA: Thank you.

And it looks like Joseph is back on line. So Joseph, if you can hear me, you can unmute and try your comment again.

JOSEPH MENDELSON: Thank you so much. I apologize about the audio problem.

Thank you, Chair Randolph, and Board members, and CARB staff. I'm Joe Mendelson, senior counsel with Tesla. We're happy to have 45,000 employees in California to have invested millions in EV charging infrastructure and to being a leader in making EVs one of California's top exports. We've also consistently defended California's authority in the number of -- in a number of the litigations that have gone forward regarding the Clean Air Act.

We support the proposal and CARB's goal of getting to a hundred percent zero-emission vehicles as rapidly as possible. Tesla indeed thinks we can do it by 2030. We hope that the proposal can be increased in stringency. We think this PHEV flexibility can be reduced.

These vehicles still pollute and indeed the EU yesterday adopted a 2035 proposed phaseout that would include PHEVs. We oppose the 15-day change and would like to see the annual historic credit limit stay. And we think all flexibilities could be capped at 20 percent usage for compliance years.

On durability, we ask that the Board revisit this requirement. We think it adds costs. It has no emissions benefit and targets long-range vehicles. For example, a 40 -- a 400 mile range EV that retains 70 percent of its range after 10 years would have a 280-mile range, but be kicked out of the program. A 200-mile range vehicle that has an 80 percent retention after 10 years would be 160 mile range and stay in the program. And I think we would all agree that a 280-mile range EV is a better car on the used market. So we ask the Board revisit the architecture of that section. Thank you very much.

BOARD CLERK GARCIA: Thank you.

I will now pass it back to Katie for our in-person commenters.

BOARD CLERK ESTABROOK: Thank you.

And Dave Patterson, who I called on earlier, I believe that you're here. And then next I'll be calling from the list that's on the screen, so if the next few can go ahead and make their way down, that would be great.

DAVIE PATTERSON: Good afternoon. And thank you for this opportunity to speak with you. I'm David Patterson, professional engineer, former CARB staff member, and now Executive Director of the CHAdeMO Association for North America.

I'm speaking on behalf of 517 CHAdeMO Association members from 47 countries. Currently, there is over 49,000 CHAdeMO chargers in 89 countries in this world. We continue to grow and over 2,000 additional chargers were installed in North America this past year.

Simply, we support staff's proposal to require DC fast charging on all future electric vehicles. We agree with staff charging behavior is being studied and is changing as the BEV market continues to grow. However, we strongly oppose staff's proposal to require CCS1 charging standard. Staff justifies this requirement that EV consumers are confused by the three different DC fast charging systems, CHAdeMO, Tesla, and CCS. But CARB's recent Electric Vehicle Supply Equipment standards technology review concluded inoperable stations and payment issues continue to be the barriers for drivers. Please note, this report does not mention any problem with any EV with a DC fast charger connector.

We are concerned that the staff's arbitrary selection ignores key DC fast charging technologies. Two significant deficiencies in the CCS standard are, there's no compatibility testing between chargers and vehicles. This causes inoperable stations and frustrated drivers. And there's no bidirectional capability.

In contrast, CHAdeMO has had bidirectional capability since 2012 and currently in California, there's 40,000 Mitsubishis and Nissans that are capable of supplying power to the grid.

BOARD CLERK ESTABROOK: Thank you. Thank you.

Ben Keller.

DAVID PATTERSON: Thank you very much.

BEN KELLER: Thank you, Chair Randolph and the Board. Good afternoon. My name is Ben Keller. I'm an Oakland resident and a volunteer with 350 Bay Area.

Unfortunately, the carbon math is simple, and it is brutal, and it does not lie. If we advance the draft document that staff has prepared for you today, it will be very difficult for California to meet its climate goals of 40 percent reductions by 2030, and it will be effectively impossible for California to achieve the 70 to 80 percent reductions by 2030 that IPCC report indicates that the science demands in order to have any hope of keeping our planet livable for the future.

This document, as proposed, groundbreaking though it may be, is effectively an emission of defeat in our climate fight. This is a -- this is a document submitting our surrender. And I would urge the Board to direct staff to consider a 100 percent by 2030 target or, at a bare minimum, 75 percent by 2030, so that we can have some hope of meeting our climate goals and maintaining a livable future for all Californians.

Thank you for your consideration.

BOARD CLERK ESTABROOK: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Sasan Saadat.

SASAN SAADAT: I was also asked to make sure my remarks are recorded on behalf of Bahram Fazeli who couldn't be here today from Communities of -- for a Better Environment.

But my name is Sasan Saadat. And I'm with Earthjustice. I'm 27. Half of all greenhouse gas emissions ever emitted happened during my lifetime. Decades before I was born, scientists with several auto companies new that their product was damaging the planet and warming it, and yet, those companies poured millions into funding climate denial and lobbying to weaken regulations like the one you are now considering.

In part, because of their success, we lost precious decades we'll never get back. And cars are now California's largest emission source. And in part, thanks to your success in the past, we have exactly the technology we need to slash those emissions. ZEVs are here. They're cheaper to own. We -- people are lining up in long wait lists to get them. It's one of our lowest hanging fruit in the climate fight, and yet this rule fails far short of what CARB staff's own models show are necessary to meet our goals.

And inn staff's defense, their report is very rigorous. Earthjustice's lawyers submitted a letter this morning attesting to the very firm legal ground that this rule is on. And if anything, the report makes very clear that a far stronger rule is justified. That's because the staff proposal shows that the proposal lacks not only an ASAP scenario, also a more relaxed slow phase-in scenario, it also lacks automakers own forecast of ZEV sales. It also lacks what other countries around the world -- countries which until recently were behind us are now achieving.

Californians living with the worst air pollution with an unprecedented investment from the Governor's budget in ZEVs, we should be championing the technology that we helped mature, which brings me to my final point. This rule can help ensure low income communities are not the last to see the benefits, but the lack of stringency and excessive credit flexibilities mean that voluntary EJ incentives will either, A, not happen, or, B, come at the expense of mass market deployment.

We've offered a solution that we think modestly adjusts these credit flexibilities to ensure a stronger equity proposal and we urge the Board to include them.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Carol Loewenstein

CAROL LOEWENSTEIN: Thanks for listening.

Well, that was great, I have to say. I'm Carol Loewenstein, co-founder of the Circle of 100 supporting Romero Institutes, Let's Green California, and the legislative work for bringing us to carbon zero by 2030. We must do it. We feel such an urgency for massive change now.

Most people don't make changes unless there's discomfort impacting their lives personally, right? I'm a fire evacuee. There's so much change going on in the world that it seems out there until it's here, right? So it's scary. I'm a health educator as well. There's so many deaths that happen, like one in five I just saw that affect cancer and bronchial problems. And that sort of thing, because of the air -- the air quality, we have to -- you know, we have committees that meet -- you know, value the work that you're doing. It's like we need a core part of every committee that goes what can we do to do it now? Like, that -- that makes people go how can we be outside the box and accelerate everything that has to be done now?

All right. What would we need to do to make change now that maybe hasn't been considered? It just -- we may live comfortably, but things are changing rapidly. They really are. So making these changes for having the charging stations everywhere, where there is -- ahh.

(Laughter.)

BOARD CLERK ESTABROOK: Thank you.

CAROL LOEWENSTEIN: Yes.

BOARD CLERK ESTABROOK: All right. Next will be nick --

(Applause.)

BOARD CLERK ESTABROOK: -- Nick Ratto.

NICK RATTO: Chair Randolph and the Board, appreciate the opportunity to speak. I wanted to applaud you for taking on this really difficult job of rulemaking in this case. Also want to state that I'm a -- I was born and raised in Alameda, California, which is an island in the San Francisco Bay between Oakland and San Francisco.

And with the latest projections, if the Antarctic ice sheet is -- continues to melt as it has, there is a very good chance that within five to 10 years, 80 percent of that island of 80,000 people will be under water. And that doesn't include all the other cities that rim the bay that have shoreline, that will also be impacted. And certainly all of the island nations in the Pacific and basically the coast lines of our country as well.

So I think it's very clear with the growing consensus that the estimates of thousands of climate scientists over the years probably were underestimating the problem being a little bit more conservative in hindsight. So we have an issue here that requires urgent attention. The nations of the Netherlands, Denmark, Finland -- sorry, Sweden and Norway, as well as the Chinese Province of Hainan have all -- had mandates for zero-emission sales by 2030 -- for a hundred percent zero-emission sales by 2030.

Also, the State of Washington enacted legislation that's in place for zero-emission -- hundred percent zero-emission passenger vehicles by 2030. So I think that the Board knows that CARB has always been a leader and California is a leader. So this is an opportunity to lead and to get in there with the others that are being very aggressive with the 2030 goal.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Jeannine Pearce.

JEANNINE PEARCE: Thank you. Good afternoon, Honorable Board members, Chair, Vice Chair, and staff. My name is Jeannine Pearce. And I'm a new Policy Director with Better World Group, and a prior council member to the City of Long Beach, a city of half a million, where I represented the port, our downtown, and Central Long Beach, where people on average lived 17 years less than people on Ocean Boulevard.

I'm here today because I spent my life working for labor, for community, as a climate champion on the board, and as a mother. I want to thank each of you tremendously for being here. I understand what it's like to be in your position, to have so many stakeholders asking you to do the right thing, to have staff that's worked so diligently to try to provide you with a recommendation.

But I also know firsthand the impacts of asthma. My daughter had infant asthma. Asthma to me meant having to hold down the person I loved most while she screaming her eyes out so I could put a mask on her, so she could breathe for the doctor to tell me it's good that she's screaming, because when she stops, she'll gasp for her medicine. That is the experience that you guys are here for. You're here to govern on our air quality, and I thank you so much for that.

I want to say that while I'm new at BWG, I might not be a policy expert on the auto industry. I might not be an expert on the details of credits, but I have served on council. I have worked alongside the labor movement for over 20 years and I've served on SCAG.

And I know that right now you are in a position where staff has worked hard and they're telling you that this is the best that we can do, but this is where you get to come in and be leaders. This is where you get to come in and direct staff to come back to work with us.

The equity groups and the process is not always -- we're not perfect, but we're here today with a recommendation to ask that you direct staff to ensure that the equity credits -- or not the equity credits -- the historical credits are only given access to those that work within delivering equity for our communities. That's not a mandate. The equity groups that are here today would support that and we ask you for your leadership.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Ruben Aronin.

RUBEN ARONIN: Good afternoon, Chair and Board members, and staff. I want to thank you all for your dedication to this hopefully final Clean Cars Regulation. And while I'm proud to help coordinate some of the diverse advocates representing millions of Californians, who are urging you to adopt a rule that accelerate ZEV sales requirements and includes equity provisions that will truly deliver cars to the communities impacted most by climate and air pollution, today I'm speaking to you with my other hat as director of the California Business Alliance for a Clean Economy, a statewide network of nearly 1,000 small and mainstream businesses who support aggressive action on climate and pollution reduction to drive our economy forward.

I'm not sure CARB imagined that our -- that electric cars would be the number one export of our State today or maybe you all did. But it's exciting that California's Clean Car Regulations, meant to improve air quality, are also driving tremendous direct and indirect economic benefits.

Business associations like mine are concerned that if we don't increase the ZEV sales requirements from the current proposal, not only will we not meet our critical climate and clean air objectives, but we could risk further ceding the jobs and economic growth that's accelerating the ZEV economy will create. Studies show a stronger rule would result in upwards of 350,000 new jobs, good paying jobs.

Before the pandemic, the state electric vehicle industry employment was over 275,000 and growing almost twice as fast as jobs in general. And these are good jobs, paying an average of 90,000 a year, well above the average across all industries.

As businesses like consumers face increasing pain at the pump cutting into profits and payroll. And as we have long wait lists here in California for ZEVs and elsewhere, while sales in Europe already hover at 30 percent, I encourage you to continue to be bolder and direct staff to strengthen the rule to at least achieve 75 percent new ZEV sales by 2030 and improve the equity programs to ensure we meet some of the needs of California's neediest pollution-burdened communities.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Heidi Harmon.

HEIDI HARMON: Thank you so much. I'm the former Mayor of San Luis Obispo, long-time climate champion, and now working with Let's Green California.

But before I mayor, I was a singled mother and a made. And reliable transportation was critical to raising my kids and doing my job. My family was at the mercy of gas prices and fear of an unexpected car breakdown. And if you're living on the poverty line, this can ruin your life.

And I'm grateful to be free of those worries now as I have ditched my gas powered station wagon and embraced my Nissan Leaf. And it was California State incentives and policies that built a bridge out of fragility and into a vehicle that I could count on. California must set stronger electric vehicle sales targets with mandatory equity Provisions to provide security to more families, especially those living in hard hit communities.

As the Mayor of SLO, I led my city to adopt the most ambitious carbon neutrality goal of any city in the United States at that time. And I was proud of that, but we can't get there alone. Local communities need the steadfast support and the bold leadership of the State to partner on the defining issue of our time.

And I'm here today representing many other electeds in the entire Democratic party who have endorsed 100 percent EV sales by 2030. And more importantly, I'm here representing my children, Zoey and Emmitt, who deserve a viable, livable planet.

It's well past time to keep asking ourselves what's possible and what is reasonable? The time is now to ask ourselves what is needed, what does this moment require? And this moment requires that we give it our all and that is 100 percent by 2030.

Europe, China, leading the way on EV adoption, Washington State. Washington State. If Washington State can d It, California can do it. Denmark, Iceland, India, Ireland, Israel, the Netherlands, and Sweden, all 100 percent EVs by 2030. If they can do it, California can do it.

It's time to stop asking what is possible and instead do what is needed to make the impossible the inevitable.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Tony Shain.

TONY SHAIN: Hello. My name is Tony Shain and I'm with Extinction Rebellion, San Francisco Bay Area.

And I just want to comment on the fact that this is an extremely urgent situation. And based on the staff report, I feel like there's a lack of urgency. And it's really critical that we embrace 100 percent by 2030. As many have shared and as many of you know, there are countless reasons why we should try and buffer the climate crisis.

So to start, I grew up in Bayview-Hunters Point in San Francisco. And most of the people that I grew up with no longer live in San Francisco, and instead they now commute to the Bay Area from Sacramento, Stockton, Tracy, et cetera. These are frontline workers who have been pushed out of their communities and forced to move from one fenceline community to the next. And now, they're commuting ridiculous distances to their workplaces and schools.

Many cannot afford a Z -- a ZEV, but they're putting in more mileage than those that can afford them. And we all know that wealthier people can afford ZEVs more than people who don't have the means. So I wonder how these current rules guarantee that these commuters and communities most affected by climate change over the past many decades are going to be able to contribute to reducing local and global emissions.

The Board really doesn't need to reward automobile companies, manufacturers that have purposely dragged their feet to adopt cleaner technology. We must require that manufacturers engage in environmental justice measures in the rule outside of the flawed credit system.

Don't make it voluntary, rather increase penalties for manufacturers that continue to sell mega-polluting vehicles. The Board should do everything it can to mandate that we subsidize clean vehicles for these EJ communities.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Next will be David Reichmuth and then after David, we're going to go back to Zoom.

DR. DAVID REICHMUTH: Chair Randolph and members of the Board. My name is David Reichmuth and I am a Senior Engineer at the Union of Concerned Scientists. On behalf of our over 500,000 supporters, we urge the Board to adopt strong Advanced Clean Cars II standards.

The ACC II standards are one of the most important air and climate pollution regulations to come before this Board. And the rules are the culmination of decades of ARB action on clean cars and zero-emission vehicles.

UCS thanks the members of the Board and ARB staff for their work on ACC II. UCS strongly supports the proposed LEV emission standards. We also support the proposed ZEV standards. However, we urge the Board to consider two areas for improvement. First, a higher target of 75 percent sales by 2030 is feasible and needed to reduce emissions as quickly as possible. The feasibility of the change is supported by the analysis of vehicle redesign schedules in the Initial Statement of Reasons.

Secondly, we ask the Board to evaluate options to strengthen the proposed equity provisions in order to provide greater assurance that the vehicle manufacturers will utilize these provisions. I also urge the Board to reject the proposed 15-day change provision that eliminates the annual cap on the use of ACC I ZEV credits. This change from an annual to a cumulative cap with no restrictions will allow manufacturers to effectively delay compliance with the ZEV regulations.

This change would mean an automaker could avoid making a single ZEV in model year 2026 if they chose to comply with ACC I credits or an automaker could cut the requirement in half for the first two years of the rule. This is no longer flexibility. It's a way for lagging automakers to intentionally delay compliance.

This high level of uncertainty in actual ZEV sales will slow the transition to ZEV and delay environmental benefits. We strongly urge the Board to reject the elimination of the annual cap on ACC credit use.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

And I apologize. There's one more name on this list, Meredith Alexander.

MEREDITH ALEXANDER: I get here as quickly as I could. Good afternoon, Chair Randolph and Board members.

Meredith Alexander here today on behalf EV 100, a global initiative of the Climate Group with 122 member businesses that are committed to electrifying two million fleet vehicles in the U.S. by 2030 and installing over 700 new charging locations at their facilities.

First, we want to express our overall support for the ACC II rule, along with our appreciation for your continued leadership in cementing California's position as a climate leader. We do believe that the regulation could be strengthened by increasing the ZEV requirements for the 2026 and 2030 model years. We're asking you to increase the 2026 requirement to 45 percent and 2030 to at least 75 percent. We think that this is both necessary and achievable.

In quarter one of 2022, as we've heard from others, ZEVs made up over 16 percent of new light-duty sales, which is a doubling in less than two years. We think this indicates that we would be able to double again to 32 percent by 2024 without regulatory intervention. So we're asking CARB to follow its own precedent by setting more ambitious targets than businesses-as-usual.

Additionally, we have more tools and more federal support to build an extensive and equitable nationwide charging network than we've ever had before. As we heard today, California is no longer alone in leading this revolution. Our members are stepping up on workplace charging, and California is going to get an additional $400 million over five years from the NEVI program through the federal government, further enabling ubiquitous charging in our state and in the other 177 states.

Our EV 100 member companies operate across the U.S. and we've been meaningfully engaging with the 17 existing 177 states and others that are waiting to see the outcome of this rulemaking to ensure that you and others are ready to adopt ACC II regulations unpacked.

Thank you so much and we look forward to continuing to support a fully electrify -- electrified future.

Thank you.

(Applause.)

BOARD CLERK GARCIA: Thank you.

Okay. We're going to pick back up with our Zoom commenters. The next five commenters will be Neil Koehler, Laurel Moorhead, Kevin Abernathy, Matt Wait and Kathy Bergren.

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

Neil, are you there?

Neil Koehler?

Okay. Let's try Laurel.

NEIL KOEHLER: No, I'll --

BOARD CLERK GARCIA: Okay. Neil, can you try that again?

NEIL KOEHLER: Can you hear me now?

BOARD CLERK GARCIA: Yes, I can.

NEIL KOEHLER: Very good. Good afternoon, Chair Randolph and members of the Board. Thank you very much.

I am Neil Koehler representing the Renewable Fuels Association. The RFA is the leading national trade association representing the ethanol industry, including California ethanol producers. We fully support the California goal to achieve carbon neutrality by 2045. We also support the intent of the ACC II Regulation, although we believe it doesn't go far enough and needs to be strengthened, particularly in addressing near-term opportunities for renewable liquid fuels to further reduce GHG and criteria pollutant emissions.

Liquid fuels are here for decades to come, and it is critical to decarbonize these fuels as soon as possible, if California is to achieve its carbon neutrality goals.

Ethanol today reduces GHG emissions by 50 percent compared to gasoline. And RFA members have committed to net zero ethanol production by 2050, with many members project to achieve this well before.

Ethanol also reduces criteria pollutants. We propose that the ACC II regulations be amended to add a component that all new ICE powered car sales from 2026 forward be flex fueled capable to ensure that the large number of ICE engines remaining on the road can be powered by low to zero carbon renewable fuels that are as clean as possible. Battery electric vehicles on a -- that are -- that can be as clean as battery electric vehicles on a full life-cycle basis and at a significantly lower cost.

Affordability and optionality are key if California is to achieve its goals. E85 currently sales for over $2 a gallon less than gasoline, and flex fueled vehicles cost significantly less than EVs. A flex fuel requirement for ICE engines added to the ACC II Regulation represents a strong and positive equity opportunity for the program, while supporting aggressive electrification.

Thank you.

BOARD CLERK GARCIA: Thank you.

Laurel, I have activated your microphone. Please unmute and begin.

LAUREL MOORHEAD: Hi. Can you hear me?

BOARD CLERK GARCIA: Yes.

LAUREL MOORHEAD: Thank you. My name is Laurel Moorhead and I am here on behalf Transfer Flow Incorporated. I'd like to thank Anna Wong and the

Advanced Clean Cars II staff for your diligent work on this project as well as CARB for the important work that you do.

The position of Transfer Flow is that the Advanced Clean Cars II regulation serves to stymie future technological innovations. Setting greenhouse gas and criteria emissions standards or even providing market incentives for electric vehicles is one thing, but CARB should not dictate to industry how to achieve those zero-emission standards.

The Advanced Clean Cars II Regulation excludes future zero-emission innovations by requiring all vehicles to be electric regardless of what other zero-emission technologies may be developed.

CARB is dictating that no matter how clean alternative technologies are developed, because they do not utilize CARB's preferred electric technology, no other technologies would be allowed. Throughout the Advanced Clean Cars II rulemaking process, CARB staff has repeatedly said that hydrogen internal combustion technologies will not be considered, because they still create oxides of nitrogen or NOx. For CARB to say that assumes a lot. Modern vehicles have multiple NOx control technologies such as exhaust gas recirculation and variable valve timing.

The Advanced Clean Cars II regulation disregards future technological advancements. Using an internal combustion hydrogen engine as an example, if combustion temperatures were lower, so that NOx were not created or perhaps an intake manifold that removed the nitrogen from the intake before it was injected into the engine was created. Regardless of how clean future technologies might be developed, the Advanced Clean Cars Regulation does not allow for any other technologies other than electric vehicles.

The Advanced Clean Cars II Regulation should be technology neutral and any zero-emissions technology that may be developed should have a pathway to certification. Thank you for allowing me the opportunity to comment.

BOARD CLERK GARCIA: Thank you.

Kevin, I have activated your microphone. Please unmute and begin.

KEVIN ABERNATHY: Copy that.

BOARD CLERK GARCIA: Yes.

KEVIN ABERNATHY: Good afternoon, Chair Randolph, members of the Board. Just a reality check this afternoon from myself, Kevin Abernathy, a Milk Producers Council.

The California dairy industry continues to do our part on both criteria and greenhouse gases in our effort to improve public health and curb climate change in looking for climate neutrality through practices and technologies on California family-owned dairy farms.

I'm going to give you a real-world example. Personally, I've been working with the San Joaquin Valley Air Pollution Control District, Mack, Volvo, KCDF, Laird on build specs to meet CARB's regulatory statutes, especially when it comes to the Heavy-Duty Truck Rule. We have the want, but the reality is the technology and supply chain constraints are very daunting. And the price quotes that we're receiving are unbelievably outrageous.

Real world example. These were provided to me on 6-2 of 2022. Prior to supply chain constraints, we were looking at Class 8 trucks that were $130,000. Today, if you have a build slot, they're adding a $59,000 premium for that build slot, which takes it to 189,000. Of course, we're making transportation fuels with renewable Cal gas. We are looking at CNG. That truck, $236,000. We're also putting electrons on the grid with our fuel cell projects, $491,000, difference of 302,000 between diesel and electric, diesel and CNG 47,000.

In both cases, this is my important part here, take-home message, we do not have fueling infrastructure in rural California to bring these to fruition. The unintended consequences of the unflexible deadlines with the one-size-fits-all approach would be catastrophic to the mass majority of rural Californians in the Central Valley folks in the communities that provide the food security for our world.

Thank you.

BOARD CLERK GARCIA: Thank you.

Matt, I have activated your microphone. Please unmute and begin.

MATT WAIT: Hi. Good afternoon. I'd like to thank the CARB for leading the way on climate regulations and I want to be clear that I fully support the plan. In response to several automakers who have called in saying that this would be extremely challenging for them, I would say that it is on them for failing to anticipate the market for electric vehicles. And many of those that have spoke have not released any electric vehicles or even hybrids for years, despite automakers -- other automakers making significant investments.

They are essentially asking for leniency for their failures. And my response is that California does not owe them continued profitability. In fact, they owe us a product that does not shorten the lifespan of our civilization.

These complaints actually highlight the need for aggressive rulemaking like this to spur companies to finally act. We do live in a -- currently live in free market capitalist society and the companies that are able to innovate, to keep up with regulations, are the ones that deserve to survive.

And to those automakers, I would say talk to Tesla who is also on this call. Elon Musk said that he would make is electric car plans free to everybody. And I personally cannot think of any promises he's made recently that he hasn't followed through on, not a single one.

With regard to supply chain issues, it's very interesting, because there's never been a shortage of iPhones, despite relying on many of the same materials. Why can't these companies innovate like Apple?

My final comment is I live in Los Angeles, the majority here are renters, the majority will not have access to at-home charging. We need more from this plan to support other forms of mobility. Indeed, we will probably need to replace cars as the primary mode of transport in Los Angeles.

Thank you.

BOARD CLERK GARCIA: Thank you.

Kathy, I have activated your microphone. Please unmute and begin.

KATHY BERGREN: Great. Thank you. I'm Kathy Bergren, Director of Public Policy for National Corn Growers Association. NCGA represents producers of sustainable low carbon feedstock for low carbon fuel. Farmers are shrinking the carbon intensity of biofuel, now half that of gasoline. And farmers continued progress with help achieve biofuels with net zero emissions. We believe CARB can secure greater emission cuts by replacing more gasoline with low carbon fuel in legacy and new vehicles. We agree with CARB's proposals to cut emissions from PHEVs. CARB can take emission reductions further by also requiring PHEVs to be flex-fueled vehicles, or FFVs.

Under ACC II, PHEVs sold in 2026 and beyond will still use gasoline. Why not add the option to use no gasoline by requiring PHEVs to be flex fuel advancing CARB's goals.

First, E85 cuts both CO2 and NOx in addition to reducing PM and avoiding toxic aromatics to support environmental justice outcomes. Today, California consumers save 40 percent with E85, more than $2 per gallon, a significant benefit. Finally, adding flex fuel technology to a vehicle does not tangibly alter the cost, offering an affordable choice with GHG savings on par with BEVs.

California is well-positioned to require all PHEVs be FFVs, as well as require any combustion vehicles sold from 2026 on to be an FFV. California drivers are buying this alternative fuel at nearly 300 locations with

E85 use growing to 62 million gallons last year, a 55 percent increase.

We urge CARB not to constrain its vision of a zero-emissions veh -- zero-emissions future, but instead focus on setting targets and allowing more low and zero carbon options that are added to EVs to maximize emission reductions in the immediate and longer term, while improving equity in transportation choices.

Thank you.

BOARD CLERK GARCIA: Thank you.

Okay. The next five remote commenters are Justin Wilson, Michael Chiacos, Roman Partida-Lopez, John Shears, and Thomas Becker.

So Justin, I have activated your microphone. Please unmute and begin.

(Dog barking.)

JUSTIN WILSON: Perfect timing with my pup.

Chair Randolph, members of the Board, thank you very much for the opportunity for remote comments. ChargePoint would like to thank the Board and the staff for their work to develop the proposed Advanced Clean Cars II regulations. We recognize California has been a global leader developing, deploying, and supporting accelerated adoptions of zero-emission vehicles.

We have a few recommended modifications to the proposal to align any final regulations adopted by the Board with best practices for electric vehicle charging to reduce emissions from power generation, incorporate renewable energy into transportation fueling, and ensure the safe deployment of electric vehicle charging equipment.

Our full comments have been submitted to the docket.

The main thing we want to comment on is the proposal to -- that all BEVs be equipped with a 20 foot Underwriters Laboratory certified charging cord capable of both Level 1 and Level 2 electric vehicle charging.

We agree with CARB that Level 2 charging at a driver's place of residence is -- creates a superior experience. However, due to increased electrical loads on the grid, conflicts with the national electric -- electrical code, a wide range of home electrical infrastructure capabilities, and a desire to integrate new EV load with renewables and demand response programs, ChargePoint's concerns that the proposed subsection 1962.3, if not modified, could do more harm than good. Again, our complete comments are online in the docket folder.

I would summarize our recommendations as CARB -- we recommend that CARB modify it's proposed requirement for automakers to provide a charging cord capable of both Level and Level 2 charging by remove -- removing the Level 2 requirement in 1962.3(b) and 1962.3(c). We also suggest that CARB modify its proposed requirements by removing the user selectable variable amperage requirements in 1962.3(c).

Thank you very much for the opportunity to comment today.

BOARD CLERK GARCIA: Thank you.

Michael, I have activated your microphone, please unmute and begin.

MICHAEL CHIACOS: Hi. I'm Michael Chiacos, Director of Climate Policy at Community Environmental Council. Founded in 1970, we are the largest environmental non-profit on the central coast and we have extensive ZEV experience includes -- including starting the official ZEV readiness collaborative for the central coast.

I have lived experience as an EV driver, driving electric since 2012. And for the past four years, my family of three has lived as one car 250 mile range BEV family. We've even taken it on a 3,000 mile road trip to Utah.

CEC supports staff modeling of getting to 100 percent ZEV sales by 2030 and requiring the equity provisions. Many automakers have set 100 percent ZEV goals by 2030 or 2035. Norway is at 92 percent right now. They're selling more ZEVs in Europe and China than in the U.S. Let's bring them here.

Equity provisions are needed, but no one has mention the best way to get more affordable ZEVs on the road is to increase the targets. This would mean millions more used ZEVs for lower income Californians. Folks need alternatives to $6 gas. With Russian oil off the market, we need to model ZEV adoption with $6 gas and how that would affect the $81 billion in savings for consumers.

And what are the health and social cost benefits of carbon? That should have been in the presentation. CARB is supposed to protect the public interest, not lagging automakers.

I've talked to many CARB Board members in the last week and heard the argument that California will likely exceed the targets, by need to be watered down to attract other states. Simple fix, let more trading occur. Direct staff to set higher interim targets and lead the market, not trail it.

Thank you.

BOARD CLERK GARCIA: Thank you.

(Applause.)

BOARD CLERK GARCIA: Roman, I have activated your microphone. Please unmute and begin.

ROMAN PARTIDA-LOPEZ: Thank you. Good afternoon, Chair Randolph, Board members, staff. My name is Roman Partida-Lopez. I'm with the Greenlining Institute.

I want to thank th staff for their work in developing this draft regulation. I know it's no easy task, given the many stakeholders involved. CARB has an opportunity to pass a rule that will set aggressive standards to help the State and others transition to zero-emission cars and help improve our air quality especially in frontline communities.

It has the opportunity and the responsibility to ensure that frontline communities, or priority populations as you all call them, see direct and meaningful benefits. Throughout all of the speakers this morning and this afternoon, and even in the ACC II website, a lot of mention of equity and the commitment to prioritize benefits to priority populations.

So my question to you all is what we have in front of us the best possible rulemaking that will ensure direct and meaningful benefits for priority populations? What we have in front of us is shamefully inadequate, particularly for low-income communities of color who bear the burden -- who bear the burden of the worst pollution and who stand the most to be affected. Greenlining more than a year ago provided a set of equity principles for this rulemaking to apply as it addressed equity, of which none show up in what we have in front of us.

The EJ provisions included here in this draft aren't mandatory, and you cannot expect those who have been responsible for the overpollution of our communities to voluntarily choose people over of profits.

We don't need more performative equity. What we need is direct action that delivers equity outcomes. What we need is a stronger EJ provision that will create deliverables and help increase access and affordability for priority populations. What we have in front us dances around the edges, and not to say that the rule does something about equity without significantly providing meaningful benefits.

I should note that CARB should move away from calling low-income and disadvantaged communities, priority populations in their rulemakings, programs, and investments are not putting the needs and priorities of priority populations first. If CARB truly cares about equity, it will stop prioritizing other states and what automakers can or should do and prioritize our frontline communities and make the necessary changes to ensure our communities don't get left behind.

Thank you.

BOARD CLERK GARCIA: Thank you.

(Applause.)

BOARD CLERK GARCIA: John Shears, I have activated your microphone. Please unmute and begin.

JOHN SHEARS: Great. So everyone can hear me? Good afternoon, Chair Randolph and members of the Board and staff. My name is John Shears. I'm with CEERT, Center for Energy Efficiency and Renewable Technologies.

CEERT thanks the staff for their considerable and their extensive work in developing the ACC II Rule. We support the proposed updates to the LEV portion of the rule, but consider the proposed ZEV sales target requirements in the ISOR to be too conservative or, in other words, too week.

We ask that CARB strengthen the ACC II Rule by increasing the sales target to at least 75 percent ZEV sales by 2030 on the way to 100 percent ZEV sales by 2030, while there are challenges that remain for clean transportation to meet the needed air quality and climate goals, including in the Section 177 states and Canada. California should continue its bold and ambitious leadership in a way that can lift up and further accelerate the development of a growing North American ZEV market.

As we've all been meeting here today, Canada and

California have just announced their new climate action and nature protection partnership that includes reference to work on clean transportation and ZEVs. CARB should incorporate stronger equity requirements that do not compromise but maintain the greatest overall stringency in the ACC II compliance. CARB should also maintain robust durability requirements for ZEVs to build broad and robust consumer confidence in ZEV technology vehicles as combustion vehicle replacements. This will also be critical for resale whereas most Californians will likely purchase their vehicles.

If California is to renew its role as world leader in ZEVs, a position that has been lost to Europe and China in recent years, CARB must be more ambitious in its goals for ZEV sales requirements under the ACC II rule. To that end, I note that yesterday, the European parliament approved a proposal that all new passenger err vehicles sold in Europe release zero GHG tailpipe emissions -- I repeat, zero GHG tailpipe emissions by 2035.

As Vice Chair Berg noted earlier, with California facing its continuing several air quality challenges and the rapidly developing climate crisis, time is not on our side. Please refer to our supplemental written comments submitted to the clerk earlier this morning for references that I've referred to in my oral comments. I thank --

BOARD CLERK GARCIA: Thank you.

JOHN SHEARS: I thank you for today's opportunity to comment on the proposed Advanced Clean Cars II regulations and thank you all for your -- your efforts.

BOARD CLERK GARCIA: Thank you.

Thomas Becker, I have un -- activated your microphone. Please unmute and begin.

THOMAS BECKER: Thank you. Can you hear me?

BOARD CLERK GARCIA: Yes, we can.

THOMAS BECKER: Thank you. Staff -- your staff can say whatever they want, because they're not under oath. Renewable liquid fuels have reduced greenhouse gas emissions at a much higher rate and a much higher level than electric vehicles would ever achieve.

Your staff has engaged in an unlawful campaign to illegally thwart the use of liquid renewable fuels as a technology that can be used to reduce greenhouse gas emissions. All responses to written comments to the ACC regulation will be submitted to the U.S. Court of Appeals for the D.C. Circuit.

All false or misleading responses by your staff in response to comments will be pointed out to that court. If staff continues to make false and misleading statements, that will be shown to that court. If staff tells the truth, then their EV scam would simply fall apart.

Now, in comment or in response to a previous person from Santa Barbara County, which is where I'm from, who drove electric vehicles for the Santa Barbara MTD. About 20 years ago, MTD proposed an electric vehicle program called Electric Avenue, or something like that. And what happened is management of MTD got caught bid rigging that program. They -- they didn't tell anybody that they had started an electric vehicle parts business, and then wrote the specifications so only people buying parts from them would be able to bid on that project. That is indicative of Santa Barbara County and it's indicative of the people in Sacramento, including you.

Thank you.

BOARD CLERK GARCIA: Thank you.

I'll turn it back to Katie for in-person commenters.

BOARD CLERK ESTABROOK: Thank you.

All right. I'm now going to call from the names that are on the screen starting with Enrique Velez. And then I'll just ask maybe the next two or three to go ahead and make their way down, so we can -- in the essence of time. That would be great.

ENRIQUE VELEZ: Thank you. Good afternoon, Honorable Chair and Board members. My name is Enrique Velez and I represent the Latin Business Association. The LDA has a long tradition of supporting environmental stewardship and have sometimes stood alone as a business organization.

However, these new regulations ACC II are simply too much, too fast for minority-owned businesses to shoulder. Between the Great Recession, then the pandemic, and now record inflation, many of our members are struggling to keep their doors open.

Our organization encourages this Board to find a better balance between technology and affordability and allow an even playing field. It's hard to compete in a global market when California has rules no other state or county are subjecting their businesses to adhere to.

This is -- this isn't just an academic debate, it's the livelihood of thousands of Latino-owned businesses and their employees. Please reject these regulations today. I thank you for your time and God bless you.

Thank you.

(Applause.)

BOARD CLERK GARCIA: Thank you.

Andrea Cao.

ANDREA CAO: Hello. Good afternoon, Chair

Randolph, members of the Board and staff. My name is Andrea Cao. I'm the Public Policy Manager for the California Asian Pacific Chamber of Commerce, which represents over 600,000 plus Asian American and Pacific Islander owned businesses in California. According to your estimates, ACC II will cost California over 85,000 jobs and will reduce personal income by $15 billion. There are over 600,000 and growing AAPI owned businesses in the state of California. And we believe ACC II creates major inequities because of lack of affordability and increased utility rates.

Our organization encourages this Board to find a better balance between technology and affordability, rather than just pushing mandates that takes the choice away from Californians, and adds extra burdens on the thousands of AAPI owned businesses that we represent.

This needs to be done in a realistic and equitable way that takes into account the people in our communities that will be heavily affected by this transition.

Thank you for your time.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Jo Ann Consigliers.

JO ANN CONSIGLIERS: Hello. My name is Jo Ann

Consigliers. I represent SB 1230, greencal.org, the Romero Institute, and Circle of 100.

I'm here to respectfully call out California Air Resources Board for failing us Californians by not guarantying the delivery of 100 percent EVs by 2030. If you were to deliver 100 percent EVs by 2030 to all Californians, you would then bring relief from high gas prices, from deadly air pollution, and give promise to our young people.

I'm calling for a stronger more equitable ACC II. As an aside, this morning when we were all here at 11:21 a.m., on my phone, a text a spare air alert was issued for Friday, 6/10 in the Bay Area. It spoke of walking, bicycling, limiting driving. So that's what we have to do, 100 percent EVs by 2030.

Thank you.

(Applause.)

EILEEN TUTT: Good afternoon, Chair Randolph and members of the Board. I just want to say you're doing something right, because nobody seems happy.

(Laughter.)

EILEEN TUTT: But I -- I just want to say thank you to Anna and Mike in particular. The staff has been awesome. They put up with us for hours at a time. I'm just going to say that we are also not entirely happy, but we fully support this regulation before you and are just pleased to say that the goal that staff is recommending 2035 by -- 100 percent by 2035 is extremely ambitious. And I can say this having done this having done this for 30 years, in the last 12 years, the sales have increased about 1 percent per year. We're now somewhere between 12 and 16 percent of the new vehicle market. We're talking about a five to tenfold increase per year in sales of new cars to reach its target. That is ambitious and will only happen because of California's leadership on all of the other complementary policies you have, including the incentives in the Low Carbon Fuel Standard as well as things like building standards and infrastructure, which, by the way, you have little control over.

So we're very glad to see the whole state coming together and supporting this regulation, and so glad to see so many people from other agencies here today and often testifying at your Board meetings.

I do want to say that while we support the durability standard recommendations, we still believe that adopting the UN standards ahead of the UN would be leadership and would also keep prices for electric vehicles within the range that we think most consumers can afford. We do know that consumers are most concerned about price when they consider this vehicle. So we would like to see the durability standards that were recommended by United Nations, adopted by CARB, but understand where staff is and appreciate all the time they spent listening to us.

Also, please read our letter, we are not supportive of mandating Level 1 and a Level 2 charger with every single vehicle. It's unnecessary and it does not solve the problem of access to infrastructure. If you can't access a plug, you can't use the convenience charger. So thank you.

BOARD CLERK ESTABROOK: Thank you.

Megan Shumway.

MEGAN SHUMWAY: Hi. I'm Megan Shumway. I'm a retired nurse and public health nurse. I now work with several climate organizations in Sacramento, because I'm deeply concerned about climate change and the ever increasing air pollution that is the underlying cause.

Combustion engine emissions threaten the planet and human health. I have had lifelong asthma that puts my well-being at risk every day. I'm currently recovering from pneumonia and I'm here today to ask you for the strictest possible air quality regular -- regulations.

Although I appreciate your sweeping and extensive efforts, we must end our addiction to fossil fuels. We have little time left to prevent mass extinctions that may well include human extinction.

All your goals and projections must happen before 2030. In addition, government schools and rental vehicle fleets must be all ZEVs sooner than later. These vehicle tools are often some of the first to enter the secondary market and make them available for the lower wage working class who have normally purchased used cars. Not everyone can afford to purchase a new zero-emission vehicle, even with a rebate. Please find a way to put charging stations and/or hydrogen in gas station making them fueling stations for all.

These are environmental justice issues that must be addressed if we are to get to carbon zero by 2030. Any projections beyond 2030 is way too late. There is even some evidence that 2030 may be too late to prevent runaway climate change. Please act with urgency.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Scott Hochberg.

SCOTT HOCHBERG: Good afternoon. My name is Scott Hochberg and I'm a transportation attorney with the Center for Biological Diversity.

It's rare that a single rule will have such a large impact on the future of our state, reaching everything from the quality of the air we breathe to

California's important climate goals. And yet, despite its massive importance, ACC II is failing on its stringency targets. These targets were developed from what manufacturers have declared they can achieve, but that is not CARB's mandate.

CARB is instead required to set targets that are protective of the health and environment of all Californians. Compared with the 2030 goal, the current 2035 target for reaching 100 percent ZEV sales allows an additional two million gas powered cars to be sold, which will be polluting on the road through 2050 or later. And we know that the rule won't even achieve the benefits it claims on paper due to the millions of excess credits in existence not to mention the many more that are being proposed this week.

CARB seems to push up its target and reach 100 percent ZEV sales by 2030. And make no mistake, this rule also drops the ball on equity. Automakers may not even use the small incentives in this rule, given their overflowing credit banks and the lofty EV targets they have set. And even if they do participate, that will reduce the number of EVs they would otherwise be required to make foregoing crucial emission savings. This is an unacceptable tradeoff between environmental and equity goals.

The rule, as it's written, seems doomed to repeat the mistakes of the past in not doing enough to make sure that vulnerable communities can share in the benefits of the transition to EVs. It is imperative that CARB get this rule right, even if that takes extra time now. We should go back to the drawing board to fix this rule, and we call upon you the Board members to not adjourn this meeting today, until you request the necessary changes to strengthen it.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Emma Yip.

EMMA YIP: Hello. My name is Emma Yip. And I'm a third year law student at UC Davis or just about to be. I'm studying environmental law and working this summer for the Center for Biological Diversity.

And like many Californians, I live about an hour away from where I go to school and work. I can't afford to live where I work or go to school and California is my home. It's polluted, it's burning, it's expensive, and I love it. I don't why. I just do.

Today, we got to hear from vehicle manufacturing representatives. And I have to say I think they're going to be okay. I know this, because I'm currently trying to purchase a car from them. And this is going to be my first ever new car and I hope it's going to be electric. And the only reason I can possibly buy an electric car right now is because I got an income based grant. And the grant is going to give me $5,000 off of the purchase price of this new car. And I have one month to use this grant before it expires. And so far every single car dealership has turned me away saying that they will not accept my grant, because they have enough people that are ready to pay in all cash. So I think the car people going to be fine

CARB needs to make ZEVs affordable and actually accessible to people like me. It needs to eliminate the loopholes and the excess credits in this proposed rule, and instead find a path towards 100 percent ZEVs by 2030. This rule has the potential to be technology forcing and doesn't need to settle for the targets that automakers have already said they can meet. And I hope CARB will ensure that the automotive industry is not dictating the terms as ACC II.

Again, I think the car industry is going to be fine. Let's make sure California is going to be fine too.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: John Hoffman.

JOHN HOFFMAN: Thank you much, Board. I appreciate your time. I think it would be difficult for anyone in this room to find anyone who doesn't want clean air. Regardless of your position, we all want clean air. Personally, I love Teslas. I've followed them for many years. I'd love to have one, but I've been here since nine o'clock and I've heard conversations on both sides, but not until 2:08 on one of our Zoom calls did I hear anybody mention anything regarding our power grid.

I would like to know personally what information you have worked with whether Southern California Edison or PG&E to talk about the contingencies should we have any power shortages between now and then. I would think it would be great to have electric vehicles by then, but what if we don't have the power to maintain it?

We're going to have shortages for electricity for air conditioning for elderly, so elderly are going to be in their homes and cooking. They won't be able to power their medical equipment. So they won't be able to power these because CARB is getting rid of the home power generators. So what are we going to do for the elderly when they can't keep their homes cool and can't keep their medical devices powered?

Any condition on that? I've read through the document. I don't see anything regarding contingencies, should we have shortages and not be able to charge all the cars. So, yes, I am in favor of clean air. I'm in favor of having electrical vehicles, but we must have contingencies written in in case we cannot power them.

Please consider that. Thank you for your time.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Teresa Cooke.

TERESA COOKE: Good afternoon. Thank you Teresa Cooke on behalf of the California Hydrogen Coalition. I want to start off by offering that we really appreciate the recognition that goal setting is far easier than tackling consume adoption. And to that end, our members are investing billions in long range, zero-emission, fuel cell electric vehicles that operate nearly identically to gasoline vehicles.

And today, they are serving our EV drivers living in multi-family dwellings, those without access at workplace -- or those without access to workplace charging and our super commuters, of which there are about 13 percent throughout the state.

I will also note that the ARB reports that 92 percent of the hydrogen that is dispensed at this point in time is 92 percent renewable. And so we look forward to partnering with California in our efforts to reach these goals, and to that end are very pleased to support the staff recommendation today.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

James McFadden.

JAMES MCFADDEN: Good afternoon, Chair Randolph and members of the Board. My name is Jim McFadden. I represent letsgreencal.org and the Romero Institute. And I'm speaking out on behalf of a stronger equitable AAC program. The proposed standard, as written, is far too weak to make a difference in hard hit communities and will not deliver the pollution cuts we need.

With gasoline at $7 a gallon, too many Californians are having to choose between fuel and the essentials that they need to live a normal decent life. Our communities are still breathing the most polluted air in the country and it's your responsibility to do what's right to relieve the suffering caused by these realities.

We need you to prioritize the health and well-being of all Californians who need affordable, pollution-free cars as quickly as possible. We urge you to strengthen the program, so that it meets our climate and clean air crises, creates good jobs, and ensures that priority communities reap the benefits of pollution-free and gas-free cars, by achieving at least 100 percent EV sales by 2030, and including equity provisions that will actually make a difference.

That's why I'm calling on you, our Air Resources Board, to do your duty and protect us from the devastating impact of expensive and polluting cars and trucks.

As California goes, so goes the nation, and the world.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

All right. We'll turn it back over to Zoom now.

BOARD CLERK GARCIA: Okay. The next few remote commenters will be Julie Beer, Mariela Ruacho, William Barrett, and a phone number ending in *329.

Julie, I have activated your microphone, please unmute and begin.

JULIE BEER: Hello. My name is Julie Beer. I'm a private citizen from Palo Alto. Thank you for the opportunity to speak at this hearing. I thank the Air Resources Board for your ambitious goal of 100 percent zero-emission light-duty vehicle sales by 2035. But if you could do it by 2030, as many people have suggested, I say hooray for that.

I worry about climate change a lot. I recently saw this amazing film that took place in the tiny village of Newtok, Alaska. The houses are sinking into the ground, because of the permafrost melting. Some of them have collapsed into the sea, because they used to be about I think it was a quarter mile from the sea and now the sea is rising.

I also saw and read an article about some village in Senegal -- I'm sorry. I don't remember the name. It's a world heritage site. It has experienced flooding and destruction of houses. They've tried to -- they've created a new temporary village two hours by bus inland. Nobody there has a car and the fisherman just won't use it. You know, they're just not going to move, because they don't have the time to do that and be out and fish.

We need as many electrical vehicle sales as possible. I worry a lot about the people who suffer asthma in our area along our clogged freeways. And I want to -- I want to make sure that the lower income people living near these clogged freeways are protected from pollutants.

We've been -- California has been a long-time leader in tackling greenhouse gas emissions and I hope we continue to be so.

Thank you very much.

(Applause.)

BOARD CLERK GARCIA: Thank you.

Mariela, I've activated your microphone. Please unmute and begin.

MARIELA RUACHO: Thank you. Hi. My name is Mariela Ruacho. I'm with the American Lung Association. I'm here on behalf of 21 health and medical organizations, which include Public Health Institute and the California Thoracic Society to name a few, and another 40 health professionals who joined our letter calling for a stronger Advanced Clean Cars II rule.

You also received a letter from the Lung Association staff across the country in looking for CARB to set the strongest possible standard. Californians breathe the most unhealthy air in the nation. In fact, the Lung Association's State of the Air Report found that California is home to six of the 10 most ozone-polluted cities in the U.S. and seven of the 10 most impacted by particle pollution.

This is why our letter asked and it is so important for CARB to set a stronger and more equitable focused rule. We need to accelerate our transition to non-combustion ZEVs by setting a 75 percent sale requirement by 2030 and a -- on the critical path to 100 percent by 2035.

In addition, we urge CARB to ensure that vulnerable communities who are most impacted by transportation pollution can experience health input -- health benefits quicker.

As proposed, the rule will generate significant health benefits, but have the potential to save lives and provide even more benefits if strengthened. We cannot afford to the leave health benefits on the table. Our report *Zeroing in on Healthy Air* found that California could gain $169 billion in health benefits and save 15,300 lives from 100 percent ZEV transition to both -- for both cars and trucks.

The rule is just one step closer to a healthier and non-combustion future. Also, we appreciate the work staff has done on low-emission vehicle standards and support their work to limit credits and other flexibilities weaken the rule. We hope to -- the Board considers our ask.

Thank you to the Board and staff for all the work on this rule and we hope to continue conversations.

Thank you.

BOARD CLERK GARCIA: Thank you.

William Barrett, I have activated your microphone. Please unmute and begin.

WILL BARRETT: Hi. Thank you. This is Will Barrett. I'm the National Senior Director for Clean Air Advocacy with the American Lung Association as well.

The Lung Association strongly supports the 100 percent sales target proposed in this rule and CARB's zero-emission non-combustion rules generally across the board as critical to meeting our clean air standards and protecting public health.

As Mariela noted, we're in strong support of many provisions in the proposals and want to continue to work with the staff on avenues to strengthen the health and equity outcomes of the rule.

And I wanted to point out that the Health Benefits weren't directly noted in the staff presentation this morning, which I though was very well done. I think -- so I wanted to highlight the -- you know, what's on the table. It's 1,272 projected lives saved under the staff proposal. The staff's analysis also notes that many more lives can be saved with a more stringent rule. Again, you just heard from Mariela on our staff about the many others -- as well as from many others calling for a stronger ramp to 100 percent and we would expect the health benefits to grow even further with a 75 percent standard at 2030.

We are deeply concerned that adding flexibilities included in the proposed 15 day changes will simply eat away at the benefits of the final rule. That's those 1,272 lives saved. We don't want to see that reduced beyond where they are now and we want to see those benefits grow.

So whether bringing travel back, allowing the use of historical credits on a cumulative basis, walking back the durability and warranty requirements, these are all areas we're deeply concerned about of the overall impact on the health benefits of the rule. We also want to make sure that there won't be any double counting of EV credits between the ACC rule and the Advanced Clean Truck Programs.

So just in closing, we want to ask that the Board and staff ensure that these proposals don't reduce the overall number of ZEVs, health benefits, or emission reductions expected in the early years of the program or overall. And then we also encourage the Board to continue to work towards greater certainty on the equity provisions and analyze the health benefits for a 75 percent standard in 2030.

Thank you again for all of your help in moving this forward. We look forward to working with you. Thank you.

BOARD CLERK GARCIA: Thank you.

And a phone number ending 329. Please state your name for the record and you can begin.

JIM KENNEDY: High. This is Jim Kennedy. I'm the Executive Director of the Health Air Alliance. And we are 100 percent in support of the 100 percent ZEV adoption by 2035.

And a lot of modeling went into this and we understand the complications of things that might not yet be available for information about the factors that are going to go into the different goals that are met at each milestone. So I think what was mentioned by a CARB Board member about building in flexibility between the mandates and the incentives. I understand that incentives might need to be the start, but mandates can be ratcheted in. If somehow that could be modeled in in a legal framework, that would be better, if that gives CARB the ability to, as the program develops, implement more and more ways to get zero emission in all-of-the-above type of technologies in play, so that we have the health benefits sooner for the people in California.

The other little points I want to bring up that -- you know, there was a lot of other things were covered. But the incentives to the manufacturers, is that through the dealerships? Because direct sales is now the new way that some of these upstart electric vehicle manufacturers are trying to get to the public. And so that's a different issue. And I don't want CARB to have to limit that type of innovation in the marketplace to get more cars to more people quicker and at a cheaper rate. And so maybe the incentive structure needs to be locked at to see that it's not baking in a dealership model.

And I understand the model had to deal with the current type of fuels used by internal combustion engine vehicles. As we see, and CARB mentioned many times, that we will have ICE cars for decades, even with this adoption of the Advanced Clean Cars. So we need to get moving quicker on Low Carbon Fuel Standard and getting --

BOARD CLERK GARCIA: Thank you.

JIM KENNEDY: -- more consumer options for alternative fuels.

BOARD CLERK GARCIA: That concludes your time.

JIM KENNEDY: Thank you.

BOARD CLERK GARCIA: Thanks.

I'll turn it back over to Katie for in-person commenters.

BOARD CLERK ESTABROOK: Thank you.

Next, we will have Jack Lucero Fleck.

JACK LUCERO FLECK: Hello, Board members. Jack Fleck at 350 East Bay. I'm really impressed that you're all hanging in here this afternoon. It's been a long day and it shows that you really do take this public testimony as an important part of your decision-making process, so I do appreciate that.

To get right to the point, other speakers have said California is not on target to reach its SB 32 goal of 40 percent greenhouse gas reductions by 2030. And you don't have to take our word for it. Look at the presentation this morning. There was a graph that showed 50 percent by 2040 for light-duty vehicle emission reductions. Okay. Well, go back up on the graph, 2030, you're at about 25 percent. Now, 25 percent is not 40 percent. We're not going to make -- and just to point out that light-duty vehicles are the low-hanging fruit. This is easy. Come on. EVs are so popular. They're so affordable. They save people money. We ought to be able to do this easily. Come on. Let's accelerate the -- as everybody else has been saying, let's accelerate the adoption.

I really want to thank Davina Hurt for her question this morning about what about the Mobile Source Strategy? Come on, that -- that called for eight million EVs. Suddenly that number has disappeared and the Scoping Plan is talking like five million. Come on, let's add those three million EVs and then we get really close to what everybody is demanding here, accelerate the adoption rate, go to 20 -- 100 percent by 2030. I don't think that question was really answered, but thank you for asking it at least.

One of the other main points that people are using to oppose -- or to say that we can't do this is looking at other states. Now, 350 has chapters all over the country. I reached out to some people from Yakima, Washington, Boulder, Colorado, they're all appalled at the idea that their state is being held up as an example of why can't -- California shouldn't go so fast, because these other states can't keep up. That's not what they want you to do. They want you to lead. They want California to really adopt this. So let's not use that as an excuse.

Thanks a lot.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Ellen McClure.

ELLEN McCLURE: Good afternoon. My name is Ellen McClure. I'm with 350 Bay Area and I'm a Berkeley resident. I'm speaking to you today to urge you to adopt 100 percent EVs by 2030 with mandatory equity provisions. I'm supporting this because it would make a meaningful dent in greenhouse gas emissions that are driving the climate crisis and we need to do more to ensure equitable access to EVs.

We're currently in the midst of a climate crisis and we're not doing enough to avoid catastrophic effects.

Recent IPCC reports tell us that we need to act fast, yet we're not doing enough to make the changes that we need.

In California, we're dealing with wildfires and with excessive heat events that are predicted to intensify. We also know that in California, we have some of the worst air quality in the country. And further, we know that the burden of air pollution and effects of climate change are not shared equally, making this an environmental justice issue.

The difference between 100 percent EVs and 2030 versus 2035 is estimated at 256 million tons of CO_2. Keeping that much out of the atmosphere would make a meaningful impact on climate change action. We can't wait. We owe it to future generations to take bold action now to address the climate crisis and have clean air for Californians, which is why I support 100 percent EVs by 2030 with mandatory equity provisions.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Marcus Gomez.

MARCUS GOMEZ: Good afternoon, Board. Thanks for this opportunity to speak to you. My name is Marcus Gomez -- (clearing throat) -- excuse me -- and I'm a small business owner. My company is California Clothing Recyclers. I export used clothing.

I have three trucks and two forklifts. The State has already asked me to replace one of my trucks. It cost plea $55,000 to replace the truck that meets the emission standards. I've already put $20,000 into that truck just in repairs alone, okay.

I've been trying to find -- I've been -- want to get away from diesel and go to gas, but right now you can't even find a gas truck, okay?

One of the -- one of the trucks is -- it's a -- they're box trucks, one is diesel and one is -- and two of them are gas, and then the two forklifts are propane. To replace all of those, it would cost me anywhere from 250 to 300 thousand dollars to go all electric.

I would be more than happy to go all electric, if the State wanted to help me pay for all of that. But to do that, you know, pay for that kind, it might just take me right of out of business. If I could move out of California and my business wasn't, you know, solely in here, I would probably move out of California.

You keep asking us to do these things and you keep reaching into our pockets. These people here I respect them. I know we need climate change. I grew up here in Sacramento. I know that our winters are getting shorter, but the cost is -- is it -- it's tremendous. These people here that come up here and they testify, they may buy one vehicle. They may buy one EV vehicle. But I've got to buy five not to mention my personal vehicles.

So please this AB 5 is too extreme. I think you need -- need to rethink it and think of something else, because it just -- I don't believe it's going to work to be honest with you, you know.

Thank you.

BOARD CLERK ESTABROOK: And then the next speaker will be Tony Villegas. And then the next few that are on the list, if you could make your way down, that would be great.

TONY VILLEGAS: Hello, Board. I'm Tony Villegas from Fresno, California. And I'm here just to say that not too much anything, because I'm not much of a speaker. But like our great leader Cesar Chavez used to say Si Se Puede and I get -- I think you people can do it with the Environmental.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Sal Ayala

SAL AYALA: Good afternoon, Chair and Board members. Thank you for this opportunity to give our comments. We really do appreciate it. So I sit on the Board of the California Hispanic Chambers of Commerce.

I'm the Inland Empire region chair, so I work with business owners, and I know the effect, as my colleague Marcus just spoke, that this will have on our business community, driving them out of business and out of California. We've done enough to hurt our community from a businesses perspective to where they want to leave.

I think that it's irresponsible to put something on that we're not prepared or ready for. Gas taxes will reduce our tax dollars to help maintain roads in our communities are simply, you know, residents of the state, are not going to be able to afford to go out and buy these EVs right. It's not -- it's not for everybody yet. We're not there yet.

I think we're going in the right direction, but it's just premature and irresponsible for us to put this burden on our community and our residents of the state, and more than anything, our businesses. You know, small businesses is what runs this country and we continue to burden us by putting these types of, you know, forced policies that will eventually result in businesses leaving the State, as we're already seeing.

So I think we're on the right path, but we're not there yet. There needs to be more infrastructure and it needs to be planned out in a better way before we start forcing this on our businesses and our -- and on our community more than anything. So I urge you to please go back to the drawing Board and come up with a plan that works, not something that is -- that is, you know, not ready to be rolled out.

So please take those things into consideration and I thank you for your time.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Karen Klinger.

Then Mandy Chavarria.

Okay. Dianna Ebbitt.

All right. Then we're going back to Zoom for the last few. Last few in Zoom, not the last few all total.

(Laughter.)

BOARD CLERK GARCIA: Okay. So the next few commenters in Zoom will be Stephanie, Kevin Hamilton, Erika Romero, and Samantha Ortega.

Stephanie, I have activated your microphone. Please unmute and begin.

STEPHANIE: Thank you very much. Thank you, Board, for allowing me to speak and I really want to salute this process of democracy that you're leaning into this. This is one of the better hearings I have attended, and I have attended a lot.

I just would like to reiterate my support, as well as the support of members of Together We Will, Indivisible Los Gatos, and Orchard City Indivisible. Both chapters represent thousands of people in Silicon Valley, that we would request that you accelerate rate this hundred percent zero-emission vehicle sales by 2030, that you, in the meanwhile, be sure that you get seven percent annual pollution tests from fossil fuel powered vehicles, and that you first and foremost have mandatory equity commitments to ensure communities that are most affected by the pollution benefit from electric vehicles, when you're formulating your policy.

I also would like to suggest that in addition to your subject matter experts and your staff experts, that you listen in to the California citizen experts on their lives, and not only their lives but the lives other children, and future generations, and your children, and your legacy for your grandchildren and their grandchildren, et cetera. We cannot provide generational equity, unless we solve these problems now and we think long term and not short term.

And with that, I thank you so much for your time.

BOARD CLERK GARCIA: Thank you.

Kevin, I have activated your microphone. Please unmute and begin.

KEVIN HAMILTON: Good afternoon. And thank you for this opportunity. My name is Kevin Hamilton and I'm the Executive Director of Central California Asthma Collaborative. Today, I also represent the San Joaquin Valley Environmental Justice Collaborative, and San Joaquin Valley Clean Vehicle Empowerment Collaborative, whose eight organizations working with -- in partnership with CARB staff and others are dispelling the myth that residents of low-income communities are not able to afford electric vehicles as long as incentives are adequate and information is provided by trusted messengers.

I was interested in slide 20 of the staff presentation. I wonder who the owners of those remaining gas vehicles are and what they're paying for gas. I'm betting most are residents of low-income communities who will likely have to wait more than 20 years more to benefit from this rule in its present form.

We urge you to reconsider and accelerate the 2030 target to at least 75 percent. And while agree the reduction of climate emissions is a good reason to do that, the one that makes the most sense for equity is it increases the number of vehicles entering the secondary market from retired corporate leased fleets and rental companies, potentially shortening the wait for these most vulnerable and lowest income folks to finally own a ZEV.

Regarding the existing equity provi --

provisions, our members find them woefully inadequate. All are voluntary and there are virtually no disincentives. California holds 11 percent of new vehicle sales in the U.S. and no OEM is going to leave this market because of a higher target eight years from now. They'll just build more cars as long as there's a market that demands them. I think the evidence of that is clear from the sales trends of the last few years. What could we achieve if we set the goal even higher.

In closing, we would ask the Board to direct staff to go back and revise the existing equity section of this plan and make sure its weighted in favor of equity with substantive provisions that ensure that's frontline communities are benefiting with the rest of Californians. Staff should proactively reach out and work with organizations like ours who live and work in these communities. As always, we stand, they stand ready to help.

Thank you.

BOARD CLERK GARCIA: Thank you.

Erika, I have activated your microphone. Please unmute and begin.

Erika Romero.

We'll move on to Samantha.

Erika I see you've unmuted.

MS. ROMERO: Yes. Good afternoon, Chair Randolph and members. Erika Romero on behalf of Valley Clean Air Now. These comments are specific to the proposed equity provisions. Recognizing the need to avoid credit inflation, it is also important to include strong incentives that serve to motivate OEMs to make changes need -- to make needed changes to their operations.

Valley CAN strongly supports these equity concepts, particularly the off-lease ZEV and low MSRP items, but we believe that the proposed equity credit amounts are far too low to serve as a motivator to make the significant changes to established market processes.

We encourage CARB and other parties to consider increasing the equity credits for these two items from 0.1 and closer to a full credit in recognition in of the challenge of redirecting lease returns to a new market or building a ZEV with MSRP less than $20,000. Thank you so much for your time.

BOARD CLERK GARCIA: Thank you.

Samantha, I have activated your microphone. Please unmute and begin.

SAMANTHA ORTEGA: Good afternoon, members of the Board. Samantha Ortega on behalf of ChargerHelp! We applaud the Air Resource Board for the Advanced Clean Cars II proposal. ChargerHelp! is a women, minority-owned clean tech company based here in California dedicated to the diagnostics, maintenance, and repair of electric vehicle charging stations, software and hardware. This includes both Level 2 and DC fast chargers.

EVSE technician is a new U.S. Department of Labor approved occupational class. Our company with the support of EV charging networks and manufacturers have built condensed curriculum to support technicians and site hosts in maintaining high operability rates for charging station accessibility to the public fleets and property owners.

We ask to consider the implications of the regulation that will bring to property owners and new EV drivers in the purchase of EVs and charging stations. We ask that, one, to strengthen equitable options in ZEV sales in order to have mass adoption and support and equitable transition among residents of disadvantaged and low income communities. Additionally, provide resources and options for property owners that will be purchasing charging stations and those who will be using public charging.

There are great products that exist today in the market today, but the EV charging industry -- hello.

BOARD CLERK GARCIA: We can hear you.

SAMANTHA ORTEGA: They're great products that exist in the market today, but the EV charging industry still needs to mature in order to zero in on one product over another.

Moreover, further research and data analysis would be needed to conduct in order to implement more focused standards to implement high reliability. Lines of EV charging stations in late 2021, ChargerHelp! conducted a study and determined that in various regions in states, you know, one size does not fit all. EV drivers need to have the flexibility in choosing equipment that best works for their choice of vehicle.

With that, I'll --

BOARD CLERK GARCIA: Thank you

SAMANTHA ORTEGA: Thank you.

BOARD CLERK GARCIA: Okay. Our last three Zoom commenters will be Bob Yuhnke, Stephanie Hagiwara, and Jamie Dow.

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

BOB YUHNKE: Thank you. My name is Bob Yuhnke. I'm representing Elders Climate Action, which has two chapters in California, Southern California and a Northern California chapter.

We're joining all the other groups, and there's over 20 I've counted today, that have asked you to advance the deadline for 100 percent zero vehicle sales to 2030, because the climate crisis demands urgent action now. We can't afford to wait.

But our focus today is on the air pollution impacts of motor vehicles that need aggressive action to include the 2030 deadline for the purpose of attaining air quality standards in the extreme ozone non-attainment, which include South Coast and the San Joaquin Valley, where 20 million Americans are exposed to pollution levels that contribute to premature deaths, and childhood asthma, and other impacts that impair public health. Those impacts are the most significant equity impacts on low-income communities.

The most important task here is to eliminate the air pollution that's causing those impacts. And this proposal does not even come close. For South Coast, the SIP documents indicate that South Coast is roughly 110 tons per day shy of the reductions needed for attainment, and this proposal, by 2035, which is the -- would be the federal deadline, would only achieve four tons of that. Much more aggressive action is needed and the 2030 deadline would help achieve those standards faster.

BOARD CLERK GARCIA: Thank you.

Stephanie, I have activated your microphone. Please unmute and begin.

STEPHANIE HAGIWARA: HiMy name is Stephanie

Hagiwara and I appreciate having the opportunity to testify as a private citizen to support CARB undertaking this proposal and urge you to adopt the strongest, boldest standards possible, while including a mandatory equity component to make the owning and right to repair electric cars feasible for all income groups.

Electric calls for all is our path to end our dependency on foreign oil, maintain access to clean air, and a tool we need to use to preserve a climate that we can all enjoy. I was born and raised in Los Angeles. In the 1970s, I remember the air quality was so bad that there were days PE and recess were canceled, and children, seniors, and anyone with respiratory issues were encouraged to say indoors.

After the 1973 oil embargo, politicians would proclaim that we need to end our dependency on foreign oil. As a child, I watched the flames of more than one wildfire in the hills above our home. Decades later, we are still dependent on foreign oil. We are facing higher-than-ever gas prices at the pump and it's impacting our economic recovery. Due to climate change, on a regular basis, firefighters are now battling wildfires that in the past would have been considered a once-in-a-lifetime fire.

In the 1970s, it took the Clean Air Act, combined with CARB, implementing aggressive action to make our air breathable for all. We need CARB to lead the way in the national and global effort to eliminate dangerous air pollutants. A key step is accelerate mandating manufacturers to sell zero-emission vehicles priced for all income levels with the right for all to repair. Please adopt the strongest, ambitious, most far-reaching standards possible.

Thank you, staff's hard work and for your consideration. Thank you.

BOARD CLERK GARCIA: Thank you.

Jamie Dow, I have activated your microphone. Please unmute and begin.

MR. JAMIE DOW: Hi. This is Jamison Dow. I'm a lifelong California resident, EV journalist, and I've had asthma my whole life, like the two million kids who get it ever year globally from traffic pollution and whose lifetime of health costs are not paid by those polluters.

Automakers say it will be hard to reach the 2035 target. They've made excuses and how touted their insufficient actions to fight climate change. They've questions this regulation from every angled to slow down implementation because this will be too hard. We can't do it fast enough. But none of this matters.

In this negotiation the automaker's adversary is not CARB, California voters, or the courts. Their adversary is physics. And physics does not care about your mundane complaints. It only cares how much carbon is in the atmosphere. A study just came out, which shows that we can stop climate with immediate action. But even if we lower climate emissions to zero today, not in 2035 or 2050, we have chance to go over 1.75 C of warming, which is the target that we do not want to exceed and we must lower that chance.

So, in -- again, in the face of physics, which does not negotiate, nothing the automakers have said matters at all. We must stop emissions not just as fast as put, but faster than these automakers claim is possible. They have to pick up the pace. And if they can't, then try harder. All hands on deck, figure it out or go bankrupt. And why not also pay for the pollution you've caused in the last century by they way.

The 2035 requirement is not enough. California should be selling -- shouldn't be selling gasoline today, much less 20 or 30 years in the future, as 2034, gas cars will still pollute for decades down the road. And California, with our U.S. and global leadership can make automakers pick up the pace by choosing a stronger target than ACC II.

I call on the Board to implement a stronger regulation pulling forward targets to 100 percent all EV by 2030 or even earlier, and further work to reduce car usage in general and shift people from cars to cleaner transport methods. This is what Norway is doing, which is nearing its 2025 EV only sales requirement already in 2022. And the biggest auto company in the world by market cap has been all EV since 2008. So these targets can be met and California shouldn't be a global laggard on this issue.

Thank you very much for your time.

BOARD CLERK GARCIA: Thank you.

And our last Zoom commenter will be Chris Bliley.

Chris, I have activated your microphone. Please unmute and you can begin.

CHRIS BLILEY: My name is Chris Bliley, Head of Regulatory Affairs for Growth Energy. Growth Energy is the World's largest association of biofuel producers, related business, and supporters.

Even as alternative technologies flourish, liquid fuels will continue to play an important role in the transportation sector for decades to come. As such, it's imperative to consider the vital role that environmentally sustainable fuel options, such as bioethanol, will play in reducing greenhouse gas and air toxic emissions in the current and future California vehicle fleet.

In the existing light-duty fleet, higher bioethanol blends like E15 and E85 can be immediately deployed to achieve greenhouse gas reductions and reduced consumer costs at the pump. The use of more bioethanol blended fuel also further improves air quality by reducing harmful air toxics such as carbon monoxide, benzene, and particulates. This improvement in air quality in turn helps to improve public health, particularly in urban high traffic density populations.

E15 has already been approved for use by the EPA in all 2001 and newer light-duty vehicles and now available in 31 states. With consumers facing record gas prices, E15 has consistently been less expensive than regular gasoline and has been available for up to $0.50 less per gallon at some locations in recent weeks.

It is critical that California complete its evaluation of E15, so that it can be made available to California drivers to further help the state achieve its carbon neutrality goals. Additionally, greater use of E85 will promote even further reductions in greenhouse gas and air toxic emissions, as well as lower consumer costs.

Today, E85 is selling $2 less per gallon than regular gasoline. The Board should strongly encourage, incentivize, and even require the production and use of flex fueled vehicles in conjunction with higher bioethanol blends for the remaining ICE fleet, as well as invest in infrastructure for expanded access to higher bioethanol blends.

More broadly, we look forward to working with you to help the State achieve its climate goals through the expanded use of bioethanol. Thank you in advance for your consideration.

BOARD CLERK GARCIA: Thank you. And that concludes the list Of Zoom commenters.

CHAIR RANDOLPH: Okay. Thank you. We have to take a 10-minute break to give our court reporter some time off.

I apologize.

(Laughter.)

CHAIR RANDOLPH: So we will be back shortly.

(Off record: 3:13 p.m.)

(Thereupon a recess was taken.)

(On record: 3:23 p.m.)

CHAIR RANDOLPH: Okay. We are back from our break and we will call the next couple of commenters.

BOARD CLERK ESTABROOK: All right. I'm going to go ahead and go through the list. Feel free to make your way forward and then if you want to just transition without me calling, that's totally fine as well.

Sherry.

SHERRY CHAVARRIA: Good afternoon, Board members and the people that were nice enough to come today that care. My name is Sherry Chavarria. And I and the President of the Dinuba Democratic Club representing and also with Si Se Puede.

As a Democrat, we have always stood for working families and underserved communities. I take it very personal. I'm sorry. These new regulations that are very -- that are being proposed will hurt the Central Valley communities. Families are having a hard enough time raising their families in California and now you plan to impose these new regulations in California.

I was born and raised in Dinuba. The population is 25,000. The poverty rate is 26.40 rate and is climbing. We are the raisin capital of the world. In Tulare County, we are farm labor industry. We feed you. We are the ones that go out and pick the grapes on our hands and knees. We pick the fruit. We are the ones that work in the packing houses that have three children at home, like myself that I raised. As a hairdresser, I worked 13, 14 hours just to be able to afford my children. I was a middle class person at one time. Now, I am lower class -- under lower class. I an below poverty level with $1,100 disability check, that I have had to move into a one room place to be able to afford. How can I afford a

Tesla with the incentives that you give me?

I am a person. These people are people. You overlook the people that put the food on your table. We need incentives that are going to help us. The people that get the incentives are the upper class. Oh, how wonderful. You bought your first Tesla last year, and you're on your third one. I could barely afford to buy a car two years ago. I have outstanding credit for me. A 700 credit is really good, because I make sure I pay my bills on time, even if I have to get payday loan.

BOARD CLERK ESTABROOK: Thank you.

SHERRY CHAVARRIA: But I pay them on time because I knew I needed to get a car when mine broke. And when I went to get my car, I didn't qualify. Okay. I got a 2018 Honda Accord, but I couldn't get the --

BOARD CLERK ESTABROOK: Thank you.

SHERRY CHAVARRIA: -- hybrid. Why? Because I didn't have the income to pay $500 payment and the insurance. So these are the people that you have to think about, not just yourselves, and energy companies, and the gas -- and the energy companies that are going to make the money. We are the people -- we are your backbone.

BOARD CLERK ESTABROOK: That concludes your time.

Thank you so much.

SHERRY CHAVARRIA: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Marcus Gonzalez.

Mike Williams.

John Larrea.

Carlos Soloranzo --

CARLOS SOLORZANO: Solorzano.

BOARD CLERK ESTABROOK: Solorzano. Sorry.

CARLOS SOLORZANO: Good afternoon, Board members. My name is Carlos Solorzano. I'm the CEO of Hispanic Chamber of Commerce of San Francisco and the Chair for the Northern Region of California Hispanic Chambers.

As you know, we are an agriculture and a builder state. And today, nobody is talking about the fruit, about the people who pick up your fruit, the people who serve your food, the people who clean your house, the people who build your places. Nobody is talking about those.

We know we're concerned. We all are concerned with the situation. We are concerned already with all the information and everything that we get in toward keeping a clean planet. But the ACC II Regulation is going to cost families. Over 85,000 jobs are going to be suffering. And I say working families, because the lost jobs are not going to be the Silicon Valley, or the San Francisco, where I'm from. It's going to be the people, like I said, to pick up your fruit, to do the cleaning and all those. And it's going to be all the small businesses that we represent. And we represent over 5,000 businesses in the Bay Area that's going to be affected by all this.

It is important because when they close -- mom and pop closed in San Francisco, we lost 39 percent of the Latino businesses for all the situations that I'm not going to be naming that's been happening, but this is going to be one more.

San Francisco has only 15 percent of the Latino population that it has. They drive from Manteca, Tracy, and other places. It is important because the small businesses are the foundation of the economy and the backbone of the United States. We need to have this regulation be very careful. We need to have them be aware when you do something, you're going to be aware of what is affecting all these people.

You know, these regulations that we have right now are affecting all the people that is serving California. So I thank you and please make sure that you are aware of what you're doing.

Gracias. (Spoke in Spanish.)

BOARD CLERK ESTABROOK: Thank you.

Mike Williams

(Applause.)

THE INTERPRETER: It's important that we truly represent our people.

BOARD CLERK ESTABROOK: Thank you.

MIKE WILLIAMS: Thank you for having me today. I'm Mike Williams and I'm here on behalf of the IWLA, the International Warehouse Logistics Association.

While IWLA members are committed to energy efficiency, environmental resilience, and conserving our environment, we have grave concerns regarding CARB's proposed Advanced Clean Cars II Rule, specifically the feasibility surrounding the lofty goals set forth in the rule and the very real economic impacts it will have on California businesses and California consumers alike.

First, the 2035 goal to ban the sale of all gas vehicles is not only arbitrary, but it is not even based on any market feasibility study to fully consider the effects of the ban.

Critical infrastructure that is necessary to fuel and sustain these vehicles must be sufficient to not disrupt the transportation system nor the power grid, and CARB has provided no evidence that this is achievable or even possible.

In fact, the California Energy Commission's recent reliability assessment indicates there may be a five gigawatt shortfall this year alone. That's enough to power over 3.5 million homes. And the addition of millions of electric vehicles on the road will only tax the electric grid further. And additionally, CARB has provided no blueprint for recouping lost revenue to maintain our highway transportation infrastructure, which is currently generated by vehicle fuel taxes.

We believe it is irresponsible to create such a budget shortfall without having a plan to replace those lost revenues, the loss of over 15 billion for critical road infrastructure. It would result in more potholes, more decaying bridges and overpasses, and more traffic safety concerns leading to more vehicle damage and more crashes.

This will ultimately make driving more expensive and more dangerous for all California drivers. In summary, while the goals of CARB's proposed ACC II rule are admirable and noble, IWLA cautions against its implementation without sufficient consideration of its dire economic impact. At the very least, a feasibility study should be undertaken to assess the cost and tenability of installing the infrastructure necessary to support the amount of EVs by the proposed date of 2035.

BOARD CLERK ESTABROOK: Thank you.

MIKE WILLIAMS: Thank you for your consideration.

BOARD CLERK ESTABROOK: All right. Julian

Canete.

JULIAN CANETE: Good afternoon, Madam Chair, CARB Board. Thank you for allowing us to share our concerns with you this afternoon. Julian Canete, California Hispanic Chambers of Commerce. And I'm here to urge CARB to reassess and reevaluate the proposed ACC II regulations. We are concerned about the costs to our communities of color and to our small business owners. In its current form, the proposed rules will cost California 85,000 jobs and over $15 billion in personal income under the proposed rules.

There is no scenario that justifies such a massive collapse of economic wealth for our communities of color, this plan -- that this plan puts forward. The word "sustainable" is often used in environmental documents, but we have a hard time accepting that this plan is sustainable for the many families that will lose their jobs if these rules are adopted.

These are 85,000 jobs, numbers from your own consultant. We can find a better path forward for new regs. The California Hispanic Chamber is looking forward and is here to help achieve solutions to meet California's climate change goals and our mission. And we look forward to working with you and the CARB staff.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Sam Bayless.

Chris Walker.

Sylvia Duarte.

SYLVIA DUARTE: Hello. Thank you, Chair Randolph and thank you to the Board. First of all, I wanted to say thank you for what you guys have done. But this proposal will hurt our members and their families. These proposals will affect those that can least afford to purchase a new vehicle. And they will be left to have to purchase older vehicles. And by doing that, they will be left to carry the burden of gas taxes and high utility costs.

With record State revenue, why are were asking working families to shoulder the burden of these new regulations. Our members do not drive electric vehicles, do not have rooftop solar, and we don't see that changing by 2035.

Let's take a step back. We are still in the midst of a pandemic. The pandemic has affected so many businesses already. And if you're asking them to change out their fleet, they're not going to be able to afford that, and they might close their business or leave California altogether.

So I think we need to help this economy. And by -- by asking for these mandatory and affecting our families, it's not going to move forward. So please take into consideration the lower income families. We are willing to work with you and see how we can help each other. Thank you for your help.

BOARD CLERK ESTABROOK: Thank you.

Will Scott.

Emily Maravillo.

EMILY MARAVILLO: Good afternoon, Board members. My name is Emily Maravillo and I am from Salinas, California. I'm 19 years old and I'm a student at UC Merced. I'm a believer in green energy and renewables. But as I look around my community in the Central Valley, I don't see any infrastructure that supports eliminating fossil fuel energy -- engines.

I ask you Board members to not only think about the people who can forward electric vehicles but consider all Californians before making these decisions. Where I live, a lot of the families are low income and they're not going to be able to afford electrical vehicles. So I just ask you to please consider what this will do to anybody in any community.

Thank you.

BOARD CLERK ESTABROOK: Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Ysidro Garcia.

YSIDRO GARCIA: Good evening. My name is Ysidro Garcia. I'm here with -- on behalf the Latin Business Association. CARB's own analysis show that the ACC II regulations will cost Californians over 80,000 -- 85,000 jobs and it will reduce personal income by 15 billion.

The small business and their employees cannot absorb these economic losses. These regulations create winners and losers. The winners are just the large multi-national corporations that can absorb these costs or pass them on to other customers. Small business do not have these luxuries. We urge the Board to mitigate the damage these regulations will have on the small business.

Thank you for your consideration.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Matt Sutton.

Bob Evans.

Carl Burton.

Doug Kessler?

DOUG KESSLER: Good afternoon. My name is Doug Kessler and I'm the Executive Director of Si Se Puede Central Valley. We are a 501(3)(c)[SIC] organization. And I wanted to kind of give a shout-out to our former Senator, Senator Florez, because he knows this will not work in our valley. You know, you have places that you guys probably never heard of that aren't on maps Alpaugh and Palm -- and Pond and Lanare. They don't even have clean water and you're going to ask them to get a car before they can have water or basic human rights? Please consider what you're doing with that. You know, we do a lot of work in Huron and Orange Cove. They average income, according to the new census is under $26,000, under the cost of what the car is going to be. They don't qualify. You know, a lot of those people don't qualify to get the grant, so please consider what you're going to do to the Central Valley.

Thank you very much.

(Applause.)

BOARD CLERK ESTABROOK: Carissa Gonzalez.

Phil Vermeulen.

All right. Jim Relles.

Sorry. We're going to put out the new list. We went through a little faster than expected.

JIM RELLES: Madam Chairman and Board members, appreciate you giving us the opportunity to speak today. I'm an owner of a small business in Sacramento. I'm second generation. We've been in business 75 years. And my son now is going to be taking over the business. We have 17 regular employees, and then at holidays our staff goes up to between 20 and 40 people. We have seven vehicles that we're using now. And I urge the Board to consider on moving out the ACC II regulations out to give the car manufacturers more times to produce lower priced delivery vehicles is -- and many of our small business people are -- I mirror their same situation with their costs and what they can afford to do. And at this present time, we couldn't afford to transfer and swap out seven of our vehicles. So I hope you take that into consideration.

And thank you very much for your time.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

All right. Next will be Jack Frost.

Dave Butler.

Lori Kammerer.

Joe Partida.

JOE PARTIDA: Good afternoon, Board Chair, Board Directors, and staff. My name is Joe Partida and I'm the President of the Oakland Latino Chamber of Commerce. And I hear all my small business owners here that came up and expressed to you the problems that this would -- well, it will -- it will -- it will destroy some businesses. It will hurt many others, because they have gasoline diesel trucks that need to be changed to electric or they cannot afford to change them that quick. I have a friend that has one truck just sitting in her -- in her -- in her yard and she can't use it, because of the same reason is now the rules have changed for that truck. The truck has now aged. So I mean, you have a lot of small businesses that are going to be hurt.

Since I'm from Oakland, I see the trucks at the Port of Oakland lined up. I mean, that's an example of a lot of trucks that need to be changed that you -- you'll -- you'll have to -- it will take time. It's not going to happen overnight. So I'm asking you to please hold off on this mandate, because I think you need to go back to the drawing board and get some more work done here on the drawing board. How can we help these businesses before they go out of business or they terribly go into bankruptcy.

Another -- another thing -- that -- that -- that kind of -- then -- and nobody has mentioned is that, for example, what I should say California is the leading state. California is the fifth largest economy in the world. So what does that mean? That means we're doing very well, but that means only certain sector of our -- of our economy is doing well, the tech, finance, building, other areas.

But that is only two-thirds of our population. The other one-third is on Medi-Cal. So that's a lot of people that will be hurt that cannot afford electric vehicles. Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Rhianna Garcia.

Timothy Marvillo.

TIMOTHY MARVILLO: Good afternoon, Board. Thank you for your time today. My name is Timothy Marvillo and I am from Salinas, California.

I am a recent graduate from UC Merced. At 21 years old, I can barely afford college tuition and housing expenses without having to work part time on the side. Without having the means to pay for schooling, how would I be able to afford an electric car by timeline being proposed. I am a huge advocate for saving the planet and health, as I just received my BS in Biological Science, hoping to seek out medical school in the future. But how can I expect to pay tuition when the target proposition is in this timeline, when I'd just be beginning my way in medical school.

Everyone wants clean air and water. However, these new regulations will disproportionately affect people of color, minorities, and those living with financial burdens that will find it extremely difficult to transition to an electric vehicle.

Also, it will greatly impact my community of Salinas, where many of our residents work endless hours to earn a check that goes directly to provide for their family. I'd like to ask you to consider about those who live in Salinas and those in low-income families who provide for their family first and then still have the chance to allow their kids to do opportunities such as clubs and sports, and that's where money generally is going, whereas it's not being used to save up for electric cars.

We are not ready for such quick -- a quick transaction. Please consider a longer transition and please consider the difficulties my generation is going to face transitioning into this next phase. It's just not possible by the dates being proposed.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Manuel Cunha, Jr.

BOARD CLERK GARCIA: I think he's on Zoom.

BOARD CLERK ESTABROOK: I believe that he might be in Zoom, so let me -- all right. Manuel Cunha is not showing up here.

Estella Kessler.

ESTELLA KESSLER: Good afternoon, Board and members. My name is Estella Kessler and I'm from Selma. It's in the heart of the Central Valley.

I work in the education field and those proposed reg -- the pro -- these proposed regulations will cost our school districts in California billions of dollars to purchase electric school buses. Maybe the districts where you all live can afford this, but our schools in Central Valley need our funding to educate our children. We all want clean air and water, but not at the risk of our children's education.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Ysidro Garcia.

Emily Maravillo

And then Timothy we already called you.

And then Julian, you already spoke as well.

Michael Garcia?

Magali Torres.

MAGALI TORRES: Good afternoon, Board. Thank you for your time today. My name is Magali Torres and I am the Outreach and Engagement Coordinator for the California Hispanic Chambers of Commerce, but today I'm representing the Merced County Hispanics Chambers of Commerce as a long-term resident of Merced County. And today, I want to bring to your attention good jobs and a healthy economy needs to be part of the environmental justice conversation. Good jobs and economic opportunity are gateways to a cleaner local environment. And if someone cannot take care of their family or small business, how can you expect them to delve into an all electric future, when the State is not in a position to support that conversion by 2035.

How can we help and be a part of the solution as we move towards the carbon neutral future. We want to help, but the plan before you today is not the solution.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you

Elaine Conway.

ELAINE CONWAY: Good afternoon, Board members. My name is Elaine Conway. And I'm from Dinuba, California. I'm a widow and disabled.

There are new regulations that will hurt my family's pocket. Our family doesn't have the ability to buy expensive electric cars while there may be a few years before gas powered cars are illegal. I don't see them lowering gas prices for electrical. It seems only the wealthy can forward to make this change. I am all about saving the earth, because I'm a very bad asthmatic. I go two or three times a month to the hospital emergency in able to breathe.

But with everything going so high and -- there's no way I can walk and -- or buy a car, so I'm going to have to look for a job at my age. So it's just a hardship. And I know that we need to clean up the air, but that should have been generations ago when the car dealers are selling their Edsels and their this and that, you know. And now that it's very dangerously for us to live, they want to do everything in a hurry, but it's impossible. So I thank you for your time and eventually we'll get there, but not yet.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Michael Garcia, back yet?

Jess Gonzalez.

JESS GONZALEZ: Good afternoon. My name is Jess Gonzalez and I'm with organization Si Se Puede out of Fresno.

As an organization rooted in the Central California Hispanic farmworker community, Si Se Puede is tuned into what impacts our communities. Advanced Clean Cars II, if adopted, will impact negatively in numerous ways life in our communities, if implemented, to rapidly.

Rome was not built in a day.

ACC II with all its regulations and mandates will also take time to be built and implemented. That is the real world. Whereas much as farmworkers are said to be for ACC II, I have not spoken to one farmworker who is actually for it. More than anything, farmworkers want to be able to support their families. Yes, they too want clean air, because many of them have asthma, but more than anything, they want to be able to afford to buy food, have appropriate housing, adequate health care, and transportation.

ACC II will make great financial demands on them, the people who put the food on the table, the low-income people who do the jobs that no other people will do. I know of no farmworker who will ride a bike to work in the fields. After working eight to 10 hours in 90 to 105 degree weather, they will be tired and they will not ride 10 to 20 miles to get home. It's just not realistic to say that. So before you adopt ACC II think of how people will be affected, think about how all will be able to respond to your mandates.

Don't base your findings solely on people who can afford the new technology. We all breathe the same air. But give the low-income communities a fighting chance, make ACC II affordable, practical, functional, and give it time to be implemented. Make it work for everyone, not just for select groups.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you.

Inga Olson.

Katie Little.

KATIE LITTLE: Good afternoon, Chair and members. My name is Katie Little and I am here on behalf of the California Farm Bureau today. We have major concerns with the proposed Advanced Clean Cars II Regulation. A majority of California farmers and ranchers live in rural communities that have limited access to the infrastructure required for these vehicles. Currently, our members and their employees already face interconnection hurdles without this added burden.

Increased utility rates and limited grid access already affect management decisions and farming practices. If there is not enough grid capacity to operate water pumps and basic farm equipment, how can we expect enough additional capacity for electric charging vehicles for on-farm and employee transportation.

Farm employees often have to travel long distances due to the remote nature of farms. Because of this, it would be important to have on-site or farm charging capabilities, again, in rural, remote regions that are prone to power outages.

Passenger vehicles on farms are used in a continuous basis, often traversing rugged and remote terrain. Taking these vehicles out of use to charge is impractical and will cut into productivity, let alone the lack of qualified mechanic support for these types of vehicles in rural areas.

This proposal will ultimately impact farm employees, rural communities, and food prices, which are already soaring.

Additionally, this proposed regulation will increase concerns surrounding California's food security by asking farmers and their employees to rely on a grid that is prone to blackouts, Public Safety Power Shutoffs, and power outages. California Farm Bureau asks for a closer review of rural utility availability and capacity. This is a vital component of this proposed regulation, which has not been addressed. Without a massive investment in rural California, we will be left quite literally in the dark.

Thank you.

(Applause.)

BOARD CLERK ESTABROOK: Thank you. All right. And that concludes the list Of commenters, Chair.

CHAIR RANDOLPH: All right. Thank you to our Board Clerks for managing both in-person and remote public comment.

Okay. So this is the first of two Board hearings. So I will now be closing the record on this agenda item. However, the record will be reopened and a 15-day Notice of Public Ability -- Availability will be issued for additional conforming modifications. When 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 ate, but before this 15-day notice is issued will not be accepted as part of the official record on the agenda item.

Okay. I am now ready to bring this item to the Board. I know Board Member Sperling and then Board Member Takvorian were going to be starting things off.

BOARD MEMBER SPERLING: Thank you very much. This has been quite a day. But as I'm going to comment in a moment, it's been quite a day for a good reason. So I do want to start just by commending staff. You know, there's a lot of wisdom that went into this proposal, a lot of work and a lot wisdom.

And you know, I'd note it's not their first rodeo. There are -- and I want to call out a particular -- you know, Anna -- Anna Wong, Mike McCarthy, Joshua Cunningham, they've been through this for a long time and -- and it shows.

So I do have some -- let me -- I'm going to give just some overarching thoughts. You know, I guess in some ways, I have somewhat unique perspective. I've been -- we'll I've been on the Board for a long time, but I -- even before that, as an academic, I testified at some of the ZEV hearings back in the 1990s. So I've really tracked this carefully and closely for 30 -- for 30 years.

So as Chair Randolph said, from a regulatory perspective, this all started 32 years ago. We adopted the ZEV mandate in 1990. We called for 10 percent ZEVs by 2003 in that CARB rule -- CARB regulation in 1990. Well, we just barely got there a couple years ago. We're now getting to around 16 percent market share.

But you know, another way of looking at it, it's taken us 32 years to get to 16 percent market share. So this proposal is very aggressive, it's very ambitious, and it's very important. And so I understand to a lot of people it's scary. You know, it's a big change. To others it seems very weak. It's like, you know, what are we waiting for?

But at the end of the day, vehicle

electrification, what we're doing here, is by far, by far the most important strategy for decarbonizing transportation. There's nothing even close to it.

And we -- from this, it will come, not only the benefits of greenhouse gas reduction and air pollution reduction, but also as the staff reported, large cost reductions. And I think that's something that is not widely appreciated and, you know, should be emphasized more. Now, these cost analyses, they're based upon lots of assumptions about cost of electricity, cost of gasoline, you know, who knows what those are going to be in the future, the future cost of batteries, and also how the bat -- how the vehicles are driven, and how they're used.

But the point is unlike most other climate strategies, ZEVs are good for consumers and good for the economy. And within a few years, you know, we're going to see on a total cost of ownership basis, which means the economic benefit, it's going to be positive relative to gasoline, and the same story for trucks as well.

So it's for these reasons that I very strongly support the overall goals and the trajectory of the staff proposal. I am sensitive to the fact that this rapid transformation it will be disruptive. It's going to be disruptive across many industries, not just the auto industry, not just the oil industry. You've got the part suppliers. You've got the mechanics. You've got the electric utilities. You've got the local governments. So it's going to be disruptive.

And it's going to be even more disruptive in other -- in the other states who lag behind California in every way, in terms of awareness, in terms of infrastructure, in terms of incentives, in terms of, you know, sales.

So I do have -- I'm going to give a -- I have a set of seven conclusions and recommendations. But I have one more observation I want to add, and that is that one of the changes here -- important changes is that the staff is taking a New approach to plug-in hybrids, and I strongly endorse this. This has been a long-term issue, that those key staff people know all about, and many others do as well.

But, you know, as Chair Randolph said, getting those -- getting to a hundred percent is going to be really hard. And, you know, there are people living in apartment buildings where it's going to be really hard. There are people living in cold weather. So Bob Graham who testified this morning went through a whole list of, you know, why it's going to be hard getting to a hundred percent. And we should not understate that. It is. And so that's why plug-in hybrids, fuel cell vehicles, we really need to keep them on the table, because we're not positive how this is going to end. We have that stake in the ground. We're going to be committed to it, but it -- there are going to be a lot of challenges.

And so I'll say I have one big concern. So I actually am very happy with, you know, what staff came up with. You know, there have been changes along with. I think they've really listened carefully to all the different stakeholders and done a really good job of updating and revising the proposal in recent month -- and you know, for quite a while for, you know, the past year or two.

But my biggest concern by far is dealing with the other states. And we need them to be successful, because what we're doing here is not just for California. And if you look at it from a climate perspective, actually this is -- it's much more important the -- what it means to and the implications for the other states and the rest of the world.

We are the first entity in the world to be adopting these aggressive, you know, 2030 -- aggressive requirements to go to a hundred percent zero-emission vehicles. You know, Nor -- other countries are ahead of us, but we're the first one to actually put this in place as a regulation and a requirement. The European Union is -- is, you know, close behind. China is close behind in adopting these. You know, many countries, as I said, are ahead of us, but we're going to be catching up with almost all -- all but Norway probably.

Okay. So I am really concerned about that. And because, one, we want a lot of states to join us, you know, not just 10 -- five states or 10 states. We want, you know, a lot more, and we want it to be successful in those states.

So it's easy for, you know, the environmental -- you know, the CARBs of the states to say, yes, we are on board. We want to do it. But at some point, you know, it's going to be, you know, the new car dealers, a lot of other entities, they're going to go to the Governor. If there's problems, they're going to go to the Governor. They're going to go to the Legislature. They're going to go to the courts. So we need to make sure this works for the other states as well for us.

Okay. So given that, here are my seven conclusions and recommendations. So first of all --

CHAIR RANDOLPH: Try to be as succinct as you can, so that Board Member Takvorian has a chance to comment too.

BOARD MEMBER SPERLING: Okay.

CHAIR RANDOLPH: So run through your seven.

BOARD MEMBER SPERLING: Okay. Seven. I'll do these quickly. You know, I am professor.

(Laughter.)

BOARD MEMBER DE LA TORRE: But we're not in class.

(Laughter.)

BOARD MEMBER SPERLING: But you're not in class.

(Laughter.)

BOARD MEMBER SPERLING: Okay. So number one, there's a lot of provisions dealing with internal combustion engines, gasoline. I think they're pretty much fine. And, you know, I would note that we've already gotten a 99 percent reduction in emissions from gasoline vehicles. So, you know, there's a lot of little tweaking going on. I think all fine

The proposed trajectory going to 35 percent in 2026, 68 percent in 2030 and 100 seems about right to me. If it was just for California, I'd -- I'd agree with some of the people that are pushing, you know, for 75 percent and so on. And I'd be -- you know, I don't if I'd agree with it, but I'd be open-minded to it.

But because this is for the other states as well, I definitely do not support going above that 68 percent. In fact, I think that's pretty aggressive by itself.

Okay. Number three. Though I'm concerned about these -- all the rules we're doing for the 177 states, I can -- I can live with the provisions that are being proposed and adopted. And it's given, because there's a lot of legal constraints. There's a lot of political considerations. And I've talked to all the states, so all the companies, you know, and I appreciate all that.

And so -- and so I do support the 15-day changes about the -- using -- allowing up to 15 percent of the compliance with carry-over credits, and then converting that into a cumulative. I think that's good. It gives more flexibility. I think that's -- that's fine. I think the fuel cell vehicle traveling rule that you don't call a traveling rule, whatever you call it now, I think is fine. I don't have a strong feeling about it, but it seems fine.

So number four is I -- I support all of the 15-day changes except for one, and that's dealing with the vehicle and battery durability. The change -- the proposal is for 75 percent of the range to be, you know, acceptable after eight years or a hundred thousand miles. And I understand the motivation is to protect consumers, except -- especially for the used the -- when they become second used vehicles.

But, you know, we are requiring that the vehicles all have a state of health, you know, a number in the dash -- on the dashboard that will tell the consumer how much degradation there is. So it's very transparent. They're getting lots of information. And the drivers are fully aware of the range and battery health. But what happens here is by requiring it, we're real -- we are increasing the cost of the vehicle. And there's a lot of -- you know, different companies are saying different numbers, but it seems pretty clear that they're going to have to overbuild to make sure that they're in compliance. And I know the staff came up with some more flexible ways to make sure that the compliance was easier.

But at the end of the day, it is re -- increasing the cost and it seems to me kind of an awkward way of dealing with consumer protection. You know, like for instance, if it's a 300-mile vehicle and you allow 25 percent degradation, it's still, what, 230 miles. If it's 150-mile car and you allow -- and you have 25 percent degradation, you know, you're getting close to a hundred miles. And it seems like its -- you know, why should they be equivalent in terms of the rules that we establish.

For the 300-mile, it's fine. You know, it's still a very usable car. It's going well and people know how much it's degraded. So it seems like kind of an awkward way of dealing with a -- with a -- with this problem. So I conclude that, you know, at the end of the day, it doesn't really -- I don't see that it really benefits the used car buyers. I know that's the argument that's made, but it's increasing the cost up front and, you know, maybe it's helping later, but there's information. So I -- it just seems to me a little heavy-handed and intervention is more than is needed. This is one case I think where we can back off a little bit.

And I would note that the United Nations has mediated these -- you know, an agreement among all -- you know, all the different countries and it's for this 70 -- using 70 percent at eight years or a hundred thousand miles, and we're saying 75 percent. So, you know, maybe it's not a huge deal, but it seems reasonable -- I would support going to 70 percent, making it consistent with, you know, the UN nego -- mediated agreement and for all the other reasons. Okay. So I know I talked too long on that one.

Okay. Quick. Okay. Mercedes had a special -- it's a tiny thing. Mercedes had a special request to, you know, that some of their vehicle -- their current vehicle doesn't meet some of the software requirements. And they said, you know, okay, don't get -- let us -- let us certify it, but we won't get any credit. It seems reasonable to me.

There was a lot -- a number of requests to have a fixed review process -- technology review process. I think that's probably not a good idea. I know the staff agrees with me on this one. I think I agree with them on it. They're going to be monitoring what's going on. They're going to be following it. You know, staff has lots of interaction with Board, so I'm comfortable with that. I would say that some -- as a few suggested, developing metrics that we can better use to monitor what's happening.

And the last, and seventh one, is regarding the EJ credits. So the goal of broader ZEV diffusion to underserved overburdened communities is really important. It's a good goal. It's an important goal. I think the credit proposal that staff came up are good innovations and they are innovative. But I would comment that the ACC II is not really the best way to accomplish this goal. And it's even subject to some legal challenges as well.

And we have many incentives and subsidy programs in place to help these communities. And I think those are going to be more effective and more important.

I do, however, suggest that the staff reassess some of those credit numbers. So like instead of 0.1 credits, you know, per vehicle for one of the provision, you know, maybe go back and look at the cost analysis and see -- maybe go up to 0.2 credits and provide more of a motivation to the companies to make sure they do use these credits.

So overall, great job by a great staff. And I would make the comment that this is arguably the most important action CARB will ever take. And I know that's a big statement, but I think it could -- you know, it's arguably true. And it makes me proud to be a Californian. It makes me proud to be a Board member. And so this is really an exciting time an important time. And so this whole day here, it seemed long. It was worth it.

Thank you.

CHAIR RANDOLPH: All right. Board Member Takvorian.

BOARD MEMBER TAKVORIAN: Okay. From the professor to the organizer. Here we go.

(Laughter.)

BOARD MEMBER TAKVORIAN: Thank you, Dr. Sperling. So I want to thank everyone. I think it has been a long day. I think it's an important day. I want to particularly thank staff and the stakeholders, community members, the automakers, everybody who's hung in for this whole long time, years -- decades actually, as pointed out.

So I think it's important. And all these states that are participating, incredibly important. I have to say though that I feel like there's a lack of clarity in a certain way about what this proposal -- what this regulation can do. And maybe I'm just responding a little bit to some of the later comments that we got, but I just think it's important that we focus on the fact that this is about new cars sales and we're talking about a hundred percent ZEV sales by 2035. And if I'm -- if I'm correct, that means 50 percent of the cars are still going to be fossil fuel by 2035. So we're not going to be a hundred percent ZEV cars by 2035. And those cars I believe will still be in use.

So nobody is going to come to your house and take your car away in 2035, is that correct? Is that a correct statement.

(Heads nodding.)

BOARD MEMBER TAKVORIAN: Okay. Oh, that was more nods than I have ever seen ever.

(Laughter.)

BOARD MEMBER TAKVORIAN: I finally get something right, right?

Okay. So no one is coming to your house to take them away. And so I think, you know, in some ways that's not good news in the sense that we're not making this grand transformation, and -- by 2035. It's a huge move, but it isn't a universal change.

So, in my mind, we need to move faster on the ZEV transition to generate the secondary market, so that those cars that are still in use in 2035 are those that can be transitioned to people who can't afford a new car, because I don't think that the equity provisions that we're talking about are necessarily that everybody in the state should be able to buy a new ZEV. So we need to figure out what the entire system looks like.

And so that's why I would like to see us -- I'm trying to go quickly here, but I would like to see us think about the people that were here today to say how -- how can your family be in a ZEV? And I think the way that can happen in the next 10 years is probably first in a used car, basically, and an affordable car. And so how do we get there?

And that, to me, means we've got to move the -- the needle, so that we're at 75 percent by 2030, because that's going to require that we're generating, manufacturing more of these cars at probably a less affordable rate and then putting them into the secondary market. But then I think we have to make the equity provisions more able to be accomplished, and whether we're calling them mandatory or not mandatory, I'd like us to review and research how we can actually make them utilized and require -- and have more assurance that they are utilized.

And so one thing to talk about is I appreciated the statement that we don't want to balloon the credits, so let's not create another credit bank with the equity credits. Let's say that if you implement the equity provisions, then you get to use the historical credits. And if you don't -- if you don't implement the equity provisions, then you don't get to use the historical credits.

So rather than creating another bucket, can we -- so it's a question. It's an idea that I'd love to have a conversation about, that that's when you get to use the credits. And I under -- I just think that maybe that's simpler, so that we can motivate the automakers to actually utilize them for the equity provisions. So the more equity you do, the more historical credits you're utilizing.

Just I want to lastly say that I -- I'm concerned about the overall picture. And in two weeks, as Senator Florez pointed out, we're going to be talking about the Scoping Plan. And this is one of the centerpiece elements to it. So we need to get this right. And Dr. Sperling saying it's the most important thing we're going to do, well, that means it's one of the most important things in the Scoping Plan. So we need to set a clear direction and a clear vision for this, I think.

And the last thing is we need to bump up equity. We just -- the State just released the report on reparations in the state of California. So if anybody thinks we're going too fast to address racial equity, you're not listening. And this is one of those places where we can do it. So to me, I don't want to see us saying we can wait till later and let's see if we can do this in a more flexible way. I think we really need to do it now and figure out our best approach. And then we have an opportunity in two weeks to figure out how it integrates with the whole big plan in the Scoping Plan. We have those other mechanisms that we can integrate it with.

So that's my -- those are my thoughts. And I really appreciate the opportunity to -- to speak at this time. And then I'm going to run and get on plan.

Thank you, Chair.

CHAIR RANDOLPH: Okay. But before you run and get on a plan --

BOARD MEMBER TAKVORIAN: Yeah.

CHAIR RANDOLPH: -- I do want to ask staff to maybe respond a little bit to the question you asked about this -- the notion of perhaps tying the historic credits to use of the EJ credits and sort of some of the kind of practicalities around that, and then Dr. Pacheco-Werner is going to go next.

DEPUTY EXECUTIVE OFFICER SEGALL: Sure. Let me start that and then Anna Wong may want to speak to it as well, Board Member Takvorian.

CHAIR RANDOLPH: And then after -- sorry, after Dr. Pacheco-Werner goes, I do want to kind of make kind of an overarching comment about equity that I don't want to the lose.

So, answer, Dr. Pacheco-Werner, and then to me.

Okay.

(Laughter.)

DEPUTY EXECUTIVE OFFICER SEGALL: Okay. So a few things. I think the general theme of assuring that folks do -- do what the EJ credits are trying to assure makes a lot of sense. I think figuring out the right set of ties is significantly more complicated, but it is something that we're already talking about and we'll keep talking about. Let me give you a little flavor for that and see if that's useful.

So I think what I'd say is, first, on historic credits, it's a bit of a misnomer, right? These are rewarding folks for ramping earlier before model year 26, which you really want to see them do, not just in

California, but in the 177s. So that's more cars earlier, that's less GHGs, more ZEVs. That's good.

Because the way the rule is set up, you don't wind up complying with those overcompliance credits, you would comply first with the volume of cars. The big volume manufacturers are quite likely not only to accrue some of those credits almost automatically, but not use them for compliance, but also to invest in the EJ credits. They'll have the volume of cars to invest in communities. Smaller volume manufacturers, those who we want to start ramping up, we want to reward and encourage them to begin overcomplying with current standards, but they may not initially have the volume to generate EJ credits simply because they may have fewer cars to move around.

So what I'm saying at a high level is the folks who are most likely to be investing first in disadvantaged communities and using those voluntary credits may not be the same people who really want to use historic credits and vice versa. So that particular leveraging may not connect in the way that we want it to, in terms of incentivizing them.

That is not to say that there are not good ways to tie things together and make sure folks really do engage in ways that further encourage companies. And we're kicking around some ideas on that in part in response to this.

The last thing I'll say obviously is I am acutely aware that there are a range of ways folks are approaching equity here. We heard some of that even today, you know, whether it's small business folks and others worried about costs, others worried about distribution. So there's a lot -- a lot to think about here. I did really clearly hear the strong desire to make sure that communities on the front lines really clearly benefit. The mechanics of that will take some thinking about.

And, Anna, anything you want to on the crediting system?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: (Shakes head.)

DEPUTY EXECUTIVE OFFICER SEGALL: Thank you.

BOARD MEMBER TAKVORIAN: You want to give us a hint as to what you're thinking?

DEPUTY EXECUTIVE OFFICER SEGALL: Well, I guess I'll say this. There are different ways to track how folks are behaving, where their cars are going. That may be one way of tracking how well things are being complied with. There may be ways to think about whether or not automakers need to acquire EJ credits from others, even if they cannot comply. There may be other ways to think about this across the whole market that recognizes that we have some complexity here, but it still encourages strong investments from those who are most likely to invest, while ensuring others have skin in the game, but we need to think a bit more about the credit design.

BOARD MEMBER TAKVORIAN: Is it possible that there's a niche market here for folks that would want to create cars that could be more affordable and sit with these EJ credits though we were -- they're not EJ credits, but the EJ mechanisms?

DEPUTY EXECUTIVE OFFICER SEGALL: You know, it's possible. And I think one of the hopes here -- there's two paths to really getting cheap plentiful EVs out. You know, the core one is volume, you know, just really moving forward as well as we can.

But the challenge here, right, is if we have really high overall stringency such that would react -- we're jamming on cost, it becomes harder to get there. So one of the things we're thinking about is how do you create a system in which there's a strong incentive with a large enough volume of cars to begin filling that particular niche. And I do think -- I mean, we've heard today, there's -- there are a lot of people who would really love a lower priced ZEV. You know, and I think it would be foolish for OEMs not to want to sell in that market. Obviously, that is in a complex arrangement with the secondary market as well. Some people just want to buy used, are more likely to buy used. But I do think there's some potential here, and it's worth thinking about.

VICE CHAIR BERG: Before you leave, I just want to have a little bit of a reality check, so give you also -- so, you know, people can't afford new ICE cars, isn't that correct?

BOARD MEMBER TAKVORIAN: Correct.

VICE CHAIR BERG: So if there's this big market out there, why aren't we selling more ICE cars into this community? So I think we're losing a little bit of reality here and we really need to address it. It feels a little disingenuous to me.

BOARD MEMBER TAKVORIAN: Yes, I agree, which is why I'v been trying to figure out how you beef up the -- edge up the secondary market. So that's more.

CHAIR RANDOLPH: Yeah. Okay. Before I pass it over to Dr. Pacheco-Werner, you know, I do think it's important to recognize, as Dr. Sperling said, that ACC II is probably of all our equity strategies, the least sort of flexible, and the least sort of able to really achieve what things like, you know, reorienting our incentives more towards lower and middle income people as we did in the funding plan do, which is working with our sister agencies on the infrastructure pieces, making sure there's charging in multi-family units or within a few blocks of multi-family units. Helping people fund the -- not just the installation of a home charger, but also if they're living in older housing that needs a -- some electricity upgrades, you know, assisting with that.

There's a lot of equity strategies we are deploying and the manufacturer requirement is probably one of the clunkier ones to add an equity layer to. So I just really want to commend staff for being, as Dr. Sperling said, innovative and creative, and even getting as far as we have. But, you know, I think it's worth keeping the discussion open and seeing if there's other options between here and August that we can come up.

I'm sorry. Dr. Pacheco-Werner, go ahead.

BOARD MEMBER PACHECO-WERNER: You're fine. Thank you.

I think, you know, this is a very significant hearing for me. For those that don't know, I live in Sanger, California, just a mile and a half away from the highway. My toddler has asthma, my husband, and myself. So this regulation is important and life saving for us.

But as I hope our other Board members heard today, for rural communities, we have lots to do to make this transition truly feasible for everyone.

Staff has heard me tell them since the beginning that this is an important regulation and I know that to have an equitable regulation we must continue to strengthen how we think about equity credits, as more of my colleagues I'm sure will continue to talk about.

We also need to think about how we work with our State agency partners and the Legislature to make sure that we are adequately funding programs that are already working now to get low income rural families in the vehicles that can afford -- that they can afford, rather than overspending in new programs that we don't know if they'll yield those same results as -- as the ones that are in -- in effect now.

We must do some of the equitable transition by centering credits and incentive investment that does a balance of rapid transformation and is creating afford -- an affordable market. I can see the 75 percent by 2030 goal happening, but I can't see it if we're not making move for plug-in hybrids, and if we're not thinking about this credit market as something that will actually result in more affordable vehicles on the road in California, rather than just delaying implementation in other states.

I strongly believe that if we don't create a credit market that is creating affordability, we're going to end up in the same situation that we're in now with housing, where there are many homes on the market that are just out of reach for most of Californians.

Because my focus is affordability that centers equity now, and to think about rural communities not just as automatic late adopters, I think this approach will also benefit the other states.

I do, at this time, oppose the cord requirements, as they will up the price point for families that may not have access to -- for charging at home now, let alone invest in Level 2 charger upgrades to their home. I think if staff want to keep that, I would really encourage them, which I really see their -- I really see your reasoning for that, but I would -- I would like to -- rather than getting that out the gate, I'd love to see a phase-in approach that is actually implementing that when we know that costs are going to start going down, because there's more market penetration for ZEVs.

And then I would also like to see the same type of phase-in with the battery durability, again to think about it from a price point perspective, where we are making the -- the regulation the standard that is going to be applied worldwide now, and then the phase-in approach, because I do believe in us continuing to be leaders, but once -- once the rigor is not going to affect the price point as much as it is today.

Again, I would love to see ZEVs in my community in every single home. I just want to make sure that the -- the stringency of the regulation that we have now doesn't result in a -- in a market that's out of reach for my neighbors.

Thank you.

CHAIR RANDOLPH: Could I ask a follow-up question to staff following up on -- from what Dr. Pacheco-Werner said and Dr. Sperling said? And this kind of relates to the interaction between the durability requirement and the state of health requirement. Because sort of the way Dr. Sperling teed it up is if the customer knows what they're buying, you know, do we really need that higher percentage, given that we know that it could result in higher costs in the earlier years? So is this kind of phase-in approach, the more -- even more gradual than proposed in the 15-day changes approach that Dr. Pacheco-Werner mentioned, something we should consider exploring?

And if any other Board members have thoughts, I'd be interested to hear as well.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Yeah, sure I can try to respond to some of that. For sure, the state of health is -- is relevant, right? I mean, we did go after that specifically to target the most expensive component on the car, the battery, and to sort of unlock some of the mystery behind it, so consumers, whether the first owner of the car, whether they're shopping for a used cars, between competing used cars, have some transparency about the health of the battery and not have this cloud looking in the back of their mind. Am I going to be due for a big repair cost coming up soon.

So absolutely that helps. We think it could affect used car prices, which affects, you know, residual prices, which affects new car lease prices. It -- you have this confidence in what you're buying as opposed to this uncertainty.

The durability expect -- the requirement is slightly different thought, right? This is -- that is about, you know, telling the consumer on a individual car what they're getting -- what they're getting for their money. The durability is really about trying to protect that these cars will be designed to be high quality used cars as well. And we don't quite have the parallel in gasoline, other than we do have a durability requirement on the emission controls. Those emission controls need to be designed for 15 years and 150,000 miles in gasoline. And that's because during any point in that time in that life, we want that thing emitting below the standards it was designed to me, right. That's the durability.

So there's a little bit of a parallel, but the idea is protecting for minimum range, just trying to ensure that is a high quality used car. You're right, you can let the market sort this out. We can have some have aggressive deterioration, others that don't, let people choose. Those car -- used cars will have a lot less value, but we need a high inventory, a high supply of quality used cars to get in the market, so we don't encourage people to hold on to their gasoline cars any longer than they normally would be today, right?

As others have pointed out, we're affecting new car sales. We're still going to be relying on the normal sort of attrition of cars and turnover of cars. We don't -- we're not forcing a fleet turnover. We're not forcing you to retire cars, or stopping you from registering those cars.

So our motivation there was to try to make sure the typical car coming into that used you car pipeline has got a good amount of range left, and that's not going to be a reason for people to avoid making that transition to an electric used car.

CHAIR RANDOLPH: Okay. That's helpful.

Any other questions, comments?

Board Member Riordan.

BOARD MEMBER RIORDAN: Yeah. Just -- just -- I don't have my mic on. Okay.

In your conversations with the manufacturers, what increase would that mean on the durability side?

CHAIR RANDOLPH: And could I -- I just want to make sure when you answer that question, we probably should talk about which -- like the -- staff originally proposed 80 percent at a hundred thousand miles, eight years

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Ten years.

CHAIR RANDOLPH: Ten hears.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Ten years, 150,00 miles.

CHAIR RANDOLPH: Okay. And then the 15-day change you have proposed is?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY:

Bringing it down from 80 percent to 75 percent.

CHAIR RANDOLPH: Seventy-five percent at?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Still at the 10 year 150,00 mile point.

CHAIR RANDOLPH: Okay. And then the OEMs are advocating for?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY:

Seventy percent at eight years, 100,000 miles.

CHAIR RANDOLPH: Okay. All right. I just wanted to make sure we all knew what we were talking about.

Now, you amy answer the question.

BOARD MEMBER RIORDAN: Okay.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Sorry, I lost my train of thought there.

(Laughter.)

BOARD MEMBER RIORDAN: Well, no, it's -- it's -- it's how much will this cost? What -- what -- what are we talking about? Because if we listen to Dr. Sperling, there's a --

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Sure.

BOARD MEMBER RIORDAN: -- cost and I want to know what you hear on your side of talking to people

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: We -- we talked a lot. You know, we talked to nearly every manufacturer about they're at.

BOARD MEMBER RIORDAN: Right.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: There is some spread, but believe it or not, there's not a huge spread in where they are, designing their products to be -- they're -- you know, they're still talking to the same batter suppliers, a lot of them are using the same battery suppliers. They're all in -- for the most part, they're in a very similar sort of ballpark with some uncertainty about what's going to happen in use.

When we look at that trajectory of where they expect their average cars to be, it is above 80 percent, but it's right there. It's right near 80 percent. Some think some of their worst performers will be below that, some will be above that. The majority are in that area.

There are a few that are higher than that. Tesla had a public sustainability report and they showed their Model S is staying well above 80 percent out to three, four, five hundred thousand miles.

Toyota on their website with -- they're late to the game. Come brand new with their EV and they are bragging that they are going to maintain 90 percent of their range.

BOARD MEMBER RIORDAN: But they're making their batteries too. It's probably not accessible to other manufacturers, right or not?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Well, you know, they all have some slight partnerships with different batter companies.

BOARD MEMBER RIORDAN: Oh, okay.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: So it's a complicated relationship, but I most of them plan right now to be above that 80 percent --

BOARD MEMBER RIORDAN: Okay.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: -- or near that 80 percent.

BOARD MEMBER RIORDAN: Um-hmm.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: But planning to be there and then having a regulation that holds you accountable to there --

BOARD MEMBER RIORDAN: Um-hmm.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: -- is a -- is a higher level of -- more than a healthy level of fear, perhaps.

BOARD MEMBER RIORDAN: Right.

CHAIR RANDOLPH: Well, and the --

BOARD MEMBER RIORDAN: What's the cost? I'm just interested in the cost of that 80.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Right. So we costed for it in our rulemaking by not -- by our future battery projection costs, we do not -- we did not go to the -- some of the bottom dollar most optimistic projections that people have, because they can make some decisions in the trade-off of durability and cost. So you can't argue that it's -- the batteries are going to go the lowest cost in the world and have no loss of durability or even better durability than they have today.

So part of what we did was costing in that trajectory of being a little more moderate. The second thing we did was when we designed costs for a battery vehicle, and how much it would convert gasoline to a battery vehicle, we had to design the size of the battery to meet a 300-mile car, we held back a bigger chunk of that battery than what most manufacturers hold back today.

What that means is we costed for maybe a 100-kilowatt hour battery pack, but we'd only give them access -- the driver access to 92 percent of it. So we'd hold back a little bit. When you do that, it protects the battery, so it doesn't deteriorate as fast, because you don't charge it to the upper peaks and lower peaks.

And so we costed in that aspect of our -- so all of the costs in this proposal about when we hit cost parity and all that stuff reflect these battery packs that are a little bit conservative in that. So other manufacturers right now, current electric vehicles, they hold back much less than that in the -- in the reserve.

And so we -- it's in our cost. Now, if want to tease out how much that translates to, you know, that's harder to tease out on those price trajectories where -- what would have been -- you know how -- we could have gone a little bit lower and -- at, you know, $48 a kilowatt hour instead of $50 or $52 a kilowatt hour in that time frame. And is that 5 kilowatts of battery back we held back?

It's complicated. It's not something you can just throw an extra $2,000 at and call it good. It really is in the design. And again --

CHAIR RANDOLPH: Well, isn't -- I mean, isn't part of the issue though is, you know, you can assign a cost per kilowatt hour, but it's also the risk profile of the company, right? It's sort of -- and what they think -- where they think their product is, and then their concern about we are going to identify as compliance with the standard, and then what -- their concerns about potential enforcement might be, right?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Yes. And how well their -- their -- their simulated aging and deterioration --

CHAIR RANDOLPH: Right.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY:

-- project -- will match what actually happens when you put it in a car and Craig goes and drives the car like he drives it, and Edie drives it like she drives it, and they park in different places, and they charge in different places, and --

CHAIR RANDOLPH: Right, because you're always awe going to have these edge cases of how people are using their batteries. And then you're going to have sort of the Broad kind of typical use that we might be analyzing in our analysis of whether or not they're compliant with the durability, is that correct?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Yeah. And in gasoline, you know, we -- we started with 25,000 mile durability standards way back in the day, right? And slowly as people got more time, and experience, and the components got better, we moved to 50,000, and 100,000 and 125 -- 150,000 mile durability. We moved up over time. You know, and its -- manufacturers gained experience and use of what's really happening. They got -- they modified their projections of how to age stuff and simulate the aging.

So we are -- the world is smarter now in how to design for those and how things are going to be used, but we are still early in the learning of what's going to happen to a battery after 10 years on the road or 12 years on the road. And so that's got them a little bit more nervous or conservative about how well they are able to predict what's going to happen.

CHAIR RANDOLPH: Right. Right. And just sort of recognizing that there's a lot of kind of iteration that is -- you know, and some conversations going on about how best to analyze the durability.

And then also, you know, recognizing that there is some enforcement discretion there, right, about, you know, when you actually pull the big old recall trigger.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: Right. So we -- we have softened the actual trigger. But even once you hit the trigger, like all of our enforcement actions, you know, you're subject to enforcement up to recall. So that's how all of our stuff is worded. You know, the vast majority of time, we end up in solutions with the manufacturer that don't involve recall. And, in fact, in 40 years, I think in the light-duty sector, we've had twice where we've gone to the mat and ordered a recall, in the late 80s with GM, and in the late 1990s with those terrible Toyota OBD systems.

But that's only twice in 40 years that we've gone to the mat. We disagreed with the manufacturer. We have not been able to enter into a settlement agreement where we agree on what the right resolution is and had to order a recall.

So that speaks to me to a little bit of the checks and balance and the reasonableness that we have had in the past 40 years about enforcement and finding a mutually agreeable solution that is not one percent below the requirement, that's it, out the door, recall it, and it's a billion dollars of costs. You know, there is -- there is a long history of trying to work with the manufacturers to find an appropriate resolution based on the situation at hand.

VICE CHAIR BERG: And so since we're talking about durability, could you speak to what a few people testified to as the two-way, grid to vehicle, vehicle to grid, and the impact of that on the battery?

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: So for sure we and the manufacturers don't completely know what's going to happen, how much that is going to happen, how much -- and how much impact it's going to have. So what we are doing, as part of this proposal, is tracking how much total energy on an individual car is pushed out of the car into the grid, or to the home, or to power tools, or whatever. So we're tracking that on -- we'll -- the data will be available on every -- any vehicle we plug into to test.

So the first protection we're putting in there for the manufacturers is that when we go to do an enforcement test or a sample of their cars, any vehicle that has a higher or an excessive amount of energy that was used that way, we'll just throw it out of our sample for now.

VICE CHAIR BERG: Okay.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: And we'll -- we won't -- we call it -- kind of call that an edge case and throw it out.

VICE CHAIR BERG: So the last thing on

durability, so we're staying kind of in sync, what I really struggle with though is why did the UN, including EPA and CARB sitting at the table, come up with 70 percent, and everybody -- we've had many, many people testify about how Norway is ahead, how Europe is ahead, they seem to be selling more cars, having more things on the road, and -- but we're coming up with a different standard? Help me with that.

ECCD VEHICLE PROGRAM SPECIALIST McCARTHY: So I have -- this is not the first time we've participated in this -- one of these UN global technical regulation ideas. And the idea is to create kind of a template that regions can then use to adopt a regulation. For the record, the U.S. has never adopted a GTR into of our -- into an actual regional regulation.

It is a good concept. It has been hard to implement to get something that all eight regions can agree on. They've tried this in crash testing and been unsuccessful to ever harmonize safety standards in Europe, and China, and the U.S. Tried it in the emission world and it turns out, guess what, we have different air quality problems than Europe has, than China has, and the same solutions don't always work.

So the GTR process involves manufacture -- the car manufacturers themselves and representatives of different regional regulatory bodies. It -- it, by default, because they -- you're in a group of everybody, you don't see confidential information from anybody, because you're only meeting in public groups, and you try to reach a consensus and take a framework that everybody has agreed to. If you are in a room and going to reach consensus with every manufacturer and every regulatory body, you tend to end up at a lower common denominator that everybody can live with.

And that is just the nature of that process they set. It's not an actual regulation that is enforceable on anybody. It is literally like a template that you could download from the website and you then, as the regulatory body of Singapore could try to turn into a regulation for your area.

VICE CHAIR BERG: Okay. Thank you. I'll wait the rest of my turn. Thanks. I have a couple of others questions.

(Laughter.)

CHAIR RANDOLPH: Okay. Mr. Eisenhut.

BOARD MEMBER EISENHUT: Thank you, Chair.

I am generally supportive of the staff recommendation, but -- and -- and I'm a little bit apprehensive about pulling on a thread, because I -- this is so well and carefully crafted, that I'm hesitant. But we're having what I think is really an engineering discussion about a perceptual issue. And I -- I go back to the introduction of Tesla, more or less 10 years ago, and I kind of recall that Tesla warrantied their batteries, I believe at that time, for a period of 10 years, if I remember correctly.

And the conversation around that warranty was not -- the story that I was -- it was shared with me was that someone asked Musk if he thought the batteries would lost that long, and he said I have no idea. But that's what we need to do to develop consumer acceptance, because there's uncertainty about this new technology and there's uncertainty about consumers' ability to recharge those batteries and their lifetime.

And that's what we have to do. And I -- I think we're in a -- as we are promoting the robust adoption of a technology that currently is only accepted by 16 percent of our consumers, and we want to get to a hundred percent, we have to -- we have to do what we need to do to develop and enhance that consumer confidence, both with regard to battery life and with regard to the ability to seamlessly, or with a minimum of turmoil, to get charged to get back and forth from home to work. So I think it's our responsibility to do -- to provide that certainty. So that -- those are my comments about that portion.

The other, I'm -- I'm -- I'm a little less than clear on credits. And that's a very complex portfolio. And I -- and I want to clarify one thing before I go on, and that is that I believe the degradation or the -- essentially, the halving of the credits applies only to aged credits and not to accumulated credits. Am I -- am I correct in that assumption? When we said under the -- under the 15-day changes, we were going to essentially divide the allowable credits by half. Those are aged credits, is that correct?

(Head nods.)

BOARD MEMBER EISENHUT: I'm getting a nod.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: If what you mean by aged is earned under a --

BOARD MEMBER EISENHUT: Well, that's the question.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Okay. So ACC I goes through 2025 model year.

BOARD MEMBER EISENHUT: Okay.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: So it's credits earned up through 2025 model year and overcompliance with the ZEV regulation up through 2025 model year.

BOARD MEMBER EISENHUT: Okay. I think I've got that.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Okay.

BOARD MEMBER EISENHUT: And if I'm looking at -- at the graphs correctly, the credits allow, and more particularly in the early years, a buffer of give to seven percent, depending on who's doing the calculation and the use -- the assumptions that go into the use of those credits.

And if I'm reading the graph correctly, the discrepancy in -- in 30 is about -- is about -- what we're projecting currently is about a 70 percent market penetration as opposed to the 75 that's been discussed. And -- and part of that difference, I just -- I'm not expressing this well, but I -- I just think that the use of credits provides too much slack in the system, with the exception -- and I hesi -- I'm -- I want to emphasize this -- of the credits that are accumulated in equity communities.

And I'll make a side-note here. And I think we need to carefully define equity communities, otherwise we're going to have the largest dealer in the state will be located in Raisin City. And we -- we need to make sure that when we say equity communities, we're talking about equity people and not -- and that we deliver what we intend to deliver to those folks and not to that geography. Otherwise, we're going to have reverse leakage in the way people shop for cars. So that's just a side-note.

But I would be comfortable when we see this again, if there were some -- and I think this is with -- consistent with Dr. Sperling's comments, if there were enhanced credits that were achieved by equity community purchasers, and that those credits maintained their viability. And I think this goes -- I think, and Diane is not here to offer an opinion on this, but I think this takes us in part in a direction that she's attempting to go. And I would also be comfortable if there were fewer credits that accrued to manufacturers, and I -- I'm -- I don't know what that would look like, but I just throw that out there for discussion.

Thank you. Those are my comments.

CHAIR RANDOLPH: Can I ask a clarifying question? Because as I understand the reason why historic credits is a misnomer is because some of those credits have yet to be earned, because they are 2025 -- up to 2025 model year, right? And that under the original proposal -- well, I shouldn't phrase it that way. I'm going to ask you, under the original proposal, how did you treat those credits in terms of their use? I may be mixing concepts here, but I'm getting to this whole 15 percent overall cap versus the early years. So can you walk us through that really quickly.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Yeah. I mean, you -- you just did a great job. But I will say that how -- okay, we first count what happens in the model career. So in 2026 model year, we look at how many vehicles that you made. And if you have met your requirement, we stop counting and we don't want your money anymore, and you can go ahead and bank that and that's it.

That's it. You don't get to go back and say, oh, wait, but I had some historical credits to us or anything like that. If you have made enough to fulfill the requirement with real vehicles, then we stop counting. And that is a different approach than we've ever used in the ZEV regulation, because we used to just take it from the bottom of your bank balance. You just add in credits and spend from the bottom, and you would just fill in your requirement with a number of credits, so there's a difference here.

CHAIR RANDOLPH: Wait. Yeah, explain that, because are you saying under the old rule if you had say 10 credits, and you had a 100 credit -- or 100 vehicle requirement and you had 10 vehicle credits sitting in your bank, we would say, you have complied with 10 percent so far. You only need to comply fly --

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right.

CHAIR RANDOLPH: -- with 90 percent, so that's how you plan for your --

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right, in the old rule.

CHAIR RANDOLPH: In the old days. Now in the new days --

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Yes. In the new days, Tesla will never be able to use a historical credit. They make a hundred percent ZEVs. They'll never be able to use a historical credit ever, because we'll never let them count them. It will never go against an obligation that they don't have, because they've fulfilled it with real vehicles. That's like an extreme example.

CHAIR RANDOLPH: Okay.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: But you can then --

CHAIR RANDOLPH: But let's say how would a regular OEM.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: If GM were to make 40 --

CHAIR RANDOLPH: I wasn't -- I'm not going to have you name names, but go ahead.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: All right. Okay. If Craig -- Craig Segall's Car Company --

DEPUTY EXECUTIVE OFFICER SEGALL: I do not have this problem.

(Laughter.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: If Segall, Incorporated makes 40 percent in 2026, they get to count 35 percent towards -- that's -- that goes towards their bill. They get to bank 5 percent for use in a -- in a future year or they can pool those and use those in other states where they might need them. That's -- that's it for a regular totally fictional car company.

(Laughter.)

CHAIR RANDOLPH: Got it. Okay. That -- that helps. So -- so now, if you have your 2025 and earlier credits, there is a cap on using them. So let's talk about that one more time really quick.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Okay. So if you have come up short, you've only made 30 percent, what -- not Segall, Incorporated. Now we're at Hebert. Hebert, Incorporated they only made 30 percent in 2026. I know. And she's, you know, head of

ECCD, what does she do.

(Laughter.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Anyway.

BOARD MEMBER KRACOV: She only sells them in Riverside.

(Laughter.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right. There's the whole thing. Okay. So 30 percent. So now she has a 5 percent part of her -- her bucket that she needs to fulfill. So now she has a couple of options. She could --

(Laughter.)

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Now, she can meet -- I don't know what 15 percent of 30 is. Somebody is going to have to do the math for me, because I can't do it on the spot. But she could fulfill that gap with those historical credits in that case, because in that year she didn't make enough -- enough vehicles in -- in real time for that year. She also could fulfill those with pooled credits from a different state. If she overcomplied in Vermont, she could bring some over and put those in to fill that gap. There's various ways that we built in, but it's only in cases where they've failed to make enough vehicles. It still helps them with compliance without making them carry a deficit.

CHAIR RANDOLPH: Or she could use EJ credits.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG:

She could all -- she could -- she could use EJ credits. That would be an option.

CHAIR RANDOLPH: Okay. So given all that, I'm still confused about what my colleague Mr. Eisenhut is proposing.

BOARD MEMBER EISENHUT: It was an observation. Not a proposal.

(Laughter.)

CHAIR RANDOLPH: Okay.

BOARD MEMBER EISENHUT: But the observation was that we enhance the credits that could be achieved in equity communities.

CHAIR RANDOLPH: Okay. Make that more valuable, in other words.

BOARD MEMBER EISENHUT: Yes.

BOARD MEMBER BALMES: Chair Randolph, could I just make one comment.

CHAIR RANDOLPH: Dr. Balmes.

BOARD MEMBER BALMES: So given how complex the whole credit situation is -- and thank you, Anna, for walking us through that and for the clarifying questions from Chair Randolph and Mr. Eisenhut. Do we have enough knowledge - and I think the answer is probably no - to really project, you know, whether we're going -- whether these credit flexibilities will impact the ZEV sales we expect in like 2026, 2027 the early years? Because I'm worried that we're not going to get the new ZEVs that, you know, we would like to have.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: This has to do with how manufacturers approach compliance. Manufacturers don't make plans to not comply with regulations. They just don't. They come up against market barriers, and supply constraints, and what they face today in the new car market that we're all, you know, kind of suffering through with them as the new car market kind of stumbles around. But manufacturers plan to comply.

Now, that does raise -- you know, in this case, it will raise the cost of new cars, but they will find a way to comply. In some cases, they may run short. They may fall short. They may not get that battery supply -- battery contract in place fast enough. They may have to make a deal with another manufacturer. They may -- they'll figure out a way. But sometimes part of that compliance means I've got to pull from my historical credit bank. And what that -- again, back to that historical credit bank, that just means they made them earlier, or in, you know, another model year in a time when they -- when they could bank those credits.

So it's -- it's more of philosophy of how you see a manufacturer complying. Some people just think they -- they're not -- they're planning to not comply. But in all of our years of experience, I -- I don't see manufacturers making plans to not comply. It's just so rare that that actually happens. They are looking for ways to comply and to be on a compliant path. And so that is what -- it's an option to them, but an option that I don't think a lot of them, especially in California, will take.

Now, the Section 177 states, they're just -- it's just a different story. And we're looking for ways for manufacturers to be compliant in those states, but for those states to be able still follow along with California's regulation, just like Dr. Sperling said.

DEPUTY EXECUTIVE OFFICER SEGALL: And just to make one other observation, Dr. Balmes. They're really cars. So what Anna is talking about is time shifting somewhat. But it is in general, and this is how I see it at least, a really good thing, especially in the states that choose to follow our rules, for folks to begin building up that market well before '26.

So to the degree that helps buffer weird years --

sometimes there's like a little pandemic -- that can be a good thing because it real cars that happens sooner.

CHAIR RANDOLPH: Yeah. I think that's a useful point to reiterate, right, that the credits are cars that somebody build, and, you know, they've been sort of tracked and valued, and they represent actual vehicles on the road.

Okay. Who would like to go next?

Oh, we also have David Florez, who is going to say a few words for Board -- Supervisor Vargas who is unable to attend today. But I will -- let's do --

BOARD MEMBER BALMES: Could I just finish then quickly?

CHAIR RANDOLPH: Yes.

BOARD MEMBER BALMES: I was trying to jump in on the credit discussion, but I just have a couple other points. So I realize -- I mean, I understand the staff's plan for the 70 percent sales mandate by 2030, or thereabouts, and -- but we've heard a lot of testimony about 75 percent. Dr. Sperling said he'd be in favor of it, if it wasn't for the 177 states. You know, I understood that point. Is it at least -- I would feel better when we vote on this in August, if we've kind of -- if staff could show us, you know, the -- sort of the cost benefits of 75 percent versus 70 percent, 2030. Just --

it would just make it easier for me to, you know, make that vote.

And then on the equity credits, what I understand Board Member Takvorian, you know, wanted to limit use of historic credits only for equity purposes. I'm not even sure that would be legal. You know, I would look to -- but I do think I would like to see as strong of an equity focus as possible, which I think all of us really want to see. So I would just hope that, again, before August, we think through how we can have the strongest possible equity provisions without totally stirring up things with the 177 states, because, you know, they -- they have lobbied me directly, the 177 states, about how they support the equity goals, but they're having enough time selling cars in those states without those provisions.

But on the other hand, I think certainly for California, I would like to see as strong of an equity provision as possible. So I just -- if staff could sort of think through that and present us with, you know, the pluses and minuses, I would appreciate that.

And I will just say that I've been -- as Dr. Sperling said, I think you've done a great job at trying to thread the needle between getting cars out there, but also trying to, you know, make them as affordable as possible. And while I think you've done a balancing act, I would lean towards trying to reduce costs.

I think that Eileen Tutt's point that price is the biggest predictor a buying ZEVs, whether they're used or not. So I don't think we should have the durability standards, and the cable, and the charger is too -- too stringent, because I think drives up price. I think it -- those are all worthy goals, but I think driving up price is a problem, if we really want to, you know, enhance the market, which we really want to do.

So I would be in favor of like the UN 70 percent durability rather than 75 percent, just off -- I'm not -- I'm open-minded, but, you know, that's where I am.

Thank you.

CHAIR RANDOLPH: Yes. Board Member Hurt.

BOARD MEMBER HURT: Yeah, just real quick, if I could ask staff, what markers or metrics are we using to evaluate equity? Everyone keeps using this word equity. It's still not defined. What does it mean? How are we going to follow back up to see whether this was a grand regulation that supported environmental justice values? Could anybody speak to that?

DEPUTY EXECUTIVE OFFICER SEGALL: Let me start. I mean, part of the challenge, as you can tell from this discussion, is there are multiple equity goals, not all of which point the same way, right? So you've heard a few of them. And it's the balancing act that was just being discussed.

You want a high volume of ZEVs, the core, that's what you need for public health. That's an equity goal right there. You want a vibrant used vehicle market and cars that last. Because to Vice Chair Berg's point, you know, for all that, I -- I do hope there's a niche for cheap new ZEVs for some communities. Most people by used.

So you need durable and reasonably priced used cars. That's part of the battery balance. And then you want to see some of these ZEVs going more directly to disadvantaged communities. That's a third metric. That's what the credits are doing. These goals all cut in slightly different ways. That's why one has to balance them. So we will know, as we implement, what is the volume, what is the price, how durable are they in the used car market especially, and how are they distributed, you know, across communities?

And each of those pieces are in the regulation. The challenge -- you know, and this is really a challenge, is trying to hit all those marks at once, while also holding all the other states that want to adopt these rules.

BOARD MEMBER HURT: And just real quick, I mean, this is the 15-day proposal.

(Laughter.)

BOARD MEMBER HURT: There's not equity in this for community members to understand. And so I really appreciated the Chair's questions around what -- what are these changes, and how do they affect people, and how do we define equity? And I would just suggest next time, there's some executive summary of all these things for the people in the community to understand what it is we're really talking about. Oh, and us too. Although, I'll read all of this.

Thanks.

(Laughter.)

CHAIR RANDOLPH: Okay. Is -- I'm going to ask Katie, is David Flores on the line? And then I'll go to you Mr. De La Torre.

BOARD CLERK ESTABROOK: Mr. Flores, I've given you access to unmute.

Oh, there go.

DAVID FLORES: Great. Thank you very much. Yes. This is David Flores reading comments for San Diego County Supervisor Nora Vargas.

"Dear, Chair and honorable Board members, unfortunately, I am unable to be with you today as the Board considers ACC II, which I believe is one of the most critical opportunities we have to ensure an equitable and accelerated transition from combustion vehicles to non-polluting ones. As a member of the San Diego Board of Supervisors, I represent approximately 635,000 county residents. And as a member of the San Diego APCD, I take seriously my position on this Board.

"I write this letter to be publicly read into the record to respectfully ensure the residents I represent that they have their voices heard by the public, CARB staff, and my colleagues. In San Diego County, as in the rest of our state, we have a serious problem, due to the impact caused by motor vehicles, particularly in frontline communities adjacent to freeways and other emission sources. Such is the case for the San Diego portside EJ community and the international border EJ community.

"I also want to share that as Chair of the APCD, we are doing what we can to reduce stationary source pollution, but addressing the mobile source impact is just as important.

"Additionally, the County of San Diego is advancing a regional decarbonization framework that will also inform future policy direction for action in different sectors. I want to thank my Board colleagues and our CARB staff for their dedication to this rulemaking and to everyone who has suggested ways to improve the rule by submitting letters, the thousands of residents who sent petitions, and the equity, environmental health, labor, and business groups that have worked diligently on this rule for nearly two years.

"I also want to thank staff for the time and effort they put towards meeting with all stakeholders to understand the impacts and the industry. I look forward to continuing this important Board discussion to ensure the regulation delivers on what we are charged with as Board members with the expectation that come August, we vote on a regulation that maintains California's leadership and innovation in cleaning our air, accelerating the creation of innovative technology, and delivering hundreds of thousands of new jobs for California families, all while reducing the cost of cars through strong equity provisions and reduced dependency on oil.

"It is with this responsibility that I keep the families I represent in my heart as I consider how I will vote in August. Many of the residents most impacted by -- by these issues have high asthma rates. And also those are the most impacted sometimes with high gas prices. So we need a strong and equitable rule that can help alleviate the immense economic health burdens that are transportation systems have placed on our most vulnerable residents.

"As I lived learned from the EJ community in my district, it would be beneficial to support accelerating zero-emission timelines, not just for the longer term climate goals, but also to advance relief for our communities. Additionally, exploring what else can be done to remove access barriers for our EJ communities are important.

"I envision a California where everyone can afford to purchase, lease, or have access to a zero-emission car regardless of their income. And I want a strong rule that catalyzes the creation of good jobs and infrastructure investments in my community.

"I'm not sure that the current proposal does enough to be inclusive of vehicle placement in priority communities that are disproportionately harmed by air pollution and climate change. And I will be asking more questions on what else can be done on equity participation, for example, can we do more for cars that are coming off of leases and develop programs to connect faster to our EJ communities.

"There's agreement between advocates and automakers that more could be done with EJ credits, which is why I support additional EJ programs. However, I would like to see how existing programs can provide more access to more people. I will always support the advancement of critical air quality goals for our frontline communities in the San Diego region.

"Again, thank the public for their comments and the staff for their work and I look forward to continued discussions and engagement.

"Thank you for allowing me to submit my comments".

CHAIR RANDOLPH: All right. Thank you.

Okay. Board Member De La Torre.

BOARD MEMBER DE LA TORRE: Thank you. I think Eileen said it right when everybody is unhappy, you know you've gotten to a good place and that's been my experience on this Board over the years. The good ones usually are the ones where we're getting grief from both -- both sides.

So that being said, I wanted to start with my framework of how I look at ZEVs, just little nuggets that I kind of keep track of. First, there's more than 15 production EVs that are debuting this year, 2022. That's a lot. That's a lot of new types of vehicles, you know, not just sedans. I've told staff I'm not a big fan of sedans. So I like -- I like that there's a variety of the types of vehicles. And I know I'm not alone in that, because cars sales nationwide tell us that.

ZEVs are on the rise. I know it's been alluded to, but I want -- when I saw this trajectory, and I think it was staff who gave it to me: 2018, 7 percent of ZEV -- of total vehicle sales in California were ZEVs; 2019, 6.8 percent - pretty much 7 percent; 2020, 7 percent again. Three years in a row, 7 percent of total car sales in California, which is a good number, certainly in that time. Then 2021 it jumped to 12 percent. So, you know, almost a doubling year over year in terms of the total amount of vehicles that are ZEVs compared to everything, include ICE, obviously. And then first quarter this year, 16 percent.

So a number of people have been using this 12 to

16 range, that's where they're getting it. Twelve percent all of last year, 16 percent first quarter this year. Who knows what it will be at the end of the year, but the trajectory is going in the right direction. So, for us, we have to keep pushing it and not screw it up. That's our task now. That's where we've gotten to.

And we know -- and I always use the UBS, the Swiss bank, analysis projection that 2024, 2025 we're going to have price parity. I know staff thinks that's too optimistic. For a change, the bank is being more optimistic than our staff, the private sector, but it's coming. And maybe COVID has dragged this out a little bit out, you know, who knows, but it's close. And I believe it's close. And certainly the announcement on the Bolt just this last week tells us we're going in that direction.

So to have an under $30,000 ZEV on the market is -- is a game changer. We only had two before. Now -- now, we're going to have one that goes under 30,000, which is really good.

We are also talking to the Feds about our overall vehicle standard. A lot of people talked about ICE vehicles going forward and what those are going to be like. We don't know, because we're talking to the Feds right now for the next year and half, two years about standards for 2027 model year, probably all the way up to 2035, I imagine, right, roughly, that's the time frame that we do.

So this will all be folded into that bigger picture of vehicle standards. And so this is not a stand -- it's not in a vacuum. We are putting all of these pieces together with all these other pieces and they're very positive, I think. The trajectory is good. The consumers are buying it. They're going to have more variety. They're going to be cheaper and things are just going to -- I'm convinced just going to break in the right direction, sooner rather than later.

So this proposal. The fuel -- fuel cells, thank you for making that adjustment. I do want to say that it isn't just infra -- the fueling infrastructure for hydrogen in those other states. This is the travel provision or whatever we're calling it now. There are certain regulations that they've got in some of these other states. And the one that I keep coming back to is New York City will not allow a fuel cell vehicle in the tunnels to get into Manhattan. How the hell are you going to buy a car that you cannot use to get into Manhattan? That makes no sense.

So those are the kinds of things that these other states have to also clear the deadwood from, so that -- so that those vehicles are real -- a real option for consumers. And so, you know, I think making the adjustment is fine. But we also have to watch what these other states are doing, because clearly the fuel cell market is behind the BEV market, at this time. And we don't know where it's all going, but having barriers is not the way to go.

The durability standard, I appreciate the move to the 75 percent and I'll kind of mimic Dr. Balmes point here. And staff told me about the UN standard and that they've got the standard, but it's the baseline, but nobody has adopted it.

So if nobody has adopted it, it isn't the baseline. No one has done that or anything else, so that if we adopt the UN standard, then it really does become the baseline for the world market. So that's just again my view. I don't know what my colleagues think on that, but I think it's good a take-off point for us going forward.

Credits. One question on the credits. And I know we've been asking a lot of them. Do we have an idea of -- up till now, of the credit utilization within California to comply here versus taking those credits wherever they're earned and applying them in the Section 177 states? Just a ballpark percentage between us and them, not that I'm trying to divide us.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Well, as we described, it's very hard to know what is being complied with credits and with vehicles. But let's go back to the mid-term review, which we brought in front of you in 2017 that we kind of redid the ZEV regular numbers and we expected about 8 percent compliance by 2025 and we're at 16 percent. So are they using more credits in California? No, they're generating credits in California. You know, it's -- right now, we -- there is -- there are -- there are -- they're continuing to amass banks, so it's hard to say if they're using credits or not. They are definitely in compliance in California.

In the states, they're -- they don't have as big of banks, and it really depends on the state and it depends on the type vehicles they're making, and it depends on the manufacturer, because manufacturers have differing markets in each state.

BOARD MEMBER DE LA TORRE: Um-hmm.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: So I would say that to compare -- to kind of compare, there are less banks in the states than there are in the Section 1 -- than in California, because they aren't necessarily at -- they're just getting to what 7 percent, I think? That's one of -- that's what the

Section 177 states slides had, on -- maybe on average or maybe that was just for one of them. I couldn't -- okay. Oregon.

So they're coming along, but they are -- they -- and right now the credits aren't fungible between California and the Section 1277 states.

BOARD MEMBER DE LA TORRE: Oh, okay.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: So we can't move them around.

BOARD MEMBER DE LA TORRE: All right.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: There's going to be now -- we're going to allow this kind of ability, but it's just all rely on overcompliance.

BOARD MEMBER DE LA TORRE: So going forward, it is fairly likely that our credits are going to go elsewhere?

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: That's right.

BOARD MEMBER DE LA TORRE: Yeah.

STCD ZEV MARKET ADVANCEMENT SECTION MANAGER WONG: Especially if we over --

BOARD MEMBER DE LA TORRE: Because that -- that was my -- that was my assumption with the question was that that was already happening. And if it hasn't happened, when it does happen, I very much expect that they're going to be -- we're going to be exporting credits, which for all of the speakers and all of the folks, and even myself who was concerned about that is actually kind of a good thing, right? We produce the cars and the credits, and then the credit part gets dealt with somewhere else. It's like an externality.

(Laughter.)

BOARD MEMBER DE LA TORRE: So -- sorry, Section 177 states.

(Laughter.)

BOARD MEMBER DE LA TORRE: So -- so that's -- that's on the credits. My bias on the credits, all credits. I'm not doing a caveat here, that we should have the minimum possible. That -- I understand that every car is a credit and -- but -- but somewhere that credit is in lieu of, and whether it's here or in the 177 states. And we are at a place, I think, with this trajectory that we're on, where we need to minimize the amount of credits.

So the two places that I told staff and I'll say it here, I would like on plug-in hybrids to reduce that number, not dramatically. They need to be part of the mix as well, but I think 20 percent is too much. And then -- and then on the EJ ones, I -- I am -- I am just convinced, and I had this conversation with staff, that folks in EJ communities, underserved communities like the one I live in aren't buying new cars. They are not buying new cars. We know that only about 30 percent of the public has ever bought a new car. I have only ever bought a new car once in my life.

And so I get that we need the new cars, because they're the ones who -- who become used cars that can be used by the folks in those communities. So I think something to be looked at, and I don't know if this can be done in the next couple months or not, but the leased vehicles, and getting them to free up those leased vehicles when they get them back. I think that's a piece of this puzzle, somehow, that we get those cars not sitting in some parking lot somewhere, to be, you know, disposed of or whatever it is that they do, or controlling it for market purposes, getting those cars out, so that -- so that they can be used by the impacted communities that we're talking about.

So that is it. Thank you very much and thank you again. You guys did a great job.

CHAIR RANDOLPH: All right. Thank you.

So Vice Chair Berg was going to comment, then what I would like to do is maybe have kind a process minute so we can just let everybody know kind of what the process steps are, and then maybe spend a little time talking about sort of some of what we've heard, because I'm hearing some consensus around some areas that I want to make sure we give appropriate direction to staff.

So Vice Chair Berg.

VICE CHAIR BERG: Thank you very much. First of all, I do want to commend staff as well. I mean, when you came to us originally and I saw that trajectory, I was already having a heart attack. And so --

(Laughter.)

VICE CHAIR BERG: -- but, you know, my fellow Board members truly convinced me that we did need to go faster. We needed to accelerate. And you came back after doing Yeoman's job working between stakeholders and listening. And you've come back with no question a very challenging -- but I think we're up for the challenge. So I would just for myself thinking about, okay, we are up for this challenge, but let's always go back to what is our goal? And we are a leader. And within being a leader, we are looking at 100 percent sales by 2035 and we know that the 177 partners have to be successful, because we identified in the very beginning of our climate policy, of AB 32, that it would not be helpful for California to go it alone, be a great success, and not bring anybody else along.

So I truly appreciate the way staff has worked with the 177 states. I understand the OEMs concerns. I think they're valid, and -- but I also did speak with the 177 states, and their passion, and their absolute determination I'm going to count on it. And I'm also going to count on us to be able to monitor, and help, and keep that on track

There's a second goal we have. It's different than the first. The first goal talks about what Board member De La Torre just said, the car buying public that buys 1.4 to about 1.7 million cars a year. They are the new car buyers. But our second goal is in my -- I believe from what I've been reading, and I've been doing a lot of rereading, is the first time in history to assure equity. That is a separate goal from getting a hundred percent of the existing car buying consumer to buy a car.

And so it is very important. It's a real opportunity, but I'm not sure, as some others have said, that the ACC II is the sole pathway to get there. So thank you very much for absolutely including equity for the first time. I agree with my fellow Board members. We're woefully short, but we're woefully short in a societal problem of equity. And so we're going to have to get together and look at this and figure this out.

And I appreciate Board Member Takvorian, not later, later, later, but it is -- it is challenging. So I thank you for that. In your review, if you were to decide that a little more value-add is another way to really encourage OEMs, I did hear from OEMs saying that that would be helpful, then if that came back, I would support it. It's not a game changer for me, in the fact that if you decide not, I will respect that.

The second thing I do want to get back to just the durability, and I'm not going to harp on it, but it -- it is -- I am very concerned about the cost. I really am. And what I'm really concerned about is we don't have enough data. It feels to me that we're picking a point in time and going to really drill down to see what the actual data is. So I's really appreciate if staff would look at that point in time and make sure are we really sure it's worth that we should stand on 75 percent rather than adopt the UN 70 percent.

I think I'm hearing from a totally different OEM group than you're talking to, because some of the people I'm talking to are between apoplectic --

(Laughter.)

VICE CHAIR BERG: -- to extremely concerned on how this is going to work. So, Mike, I -- you know, you are the go-to guy. You are the Gold Standard. Nobody is questioning that. But this is -- this is -- we're kicking off here, and what is the kick-off point. And so I just really would appreciate stepping back with an open mind and saying what's the goal, what else can you get, wonder if they were willing to offer a warranty on used cars differently. What -- what is it we need to get kicked off. You're going to have plenty of time to make it more stringent, and -- once we get data.

But if you come back at 75 percent, I want you to know I'm going to support it, okay? But I want you to know, I really do appreciate please take a look at this.

I appreciate the fuel cells. I -- I just don't see that battery plug-ins is going to be the hundred percent. I don't know if fuel cell is really going to make it. We've got a lot of challenges besides opening up stations, price, availability, and so forth, but I am a believer, and so I do appreciate we're keeping it alive until 2030.

We need all the tools in the toolbox. So anything that this regulation right now looks to sunset before 2030, I'd really like you to take a look at. Is it something we should do? I'm thinking about the two ways. Should we sunset the two ways in '27, '28 versus '30? Are they needed? So look at all those tools just to double check.

And then last two points. You know, the small manufacturers are going to have a real struggle here, especially going up through the next few years. You look at a company like Mitsubishi, who's price point is between 15,000 and -- I have it written down here -- and 27,000 a vehicle. These -- these are brand new cars that are competing in the new market. And we start looking at electrifying those, it is going to increase that price significantly. So as we are looking about what are we doing with equity, they need to come along. I'm not suggesting anything different for them, but it would be really important for you to track what is happening in the marketplace and to Dr. Pacheco-Werner's point are we just pricing cars out of the reach. And so that -- that is an important point.

And then my last point is, is that, you know, we don't do anything truly to figure out how many cars are sticking around in California. And so we've had a big fanfare that we reached a million cars that we've sold. And yet, the DMV data suggesting it some place around 800,000. That would be a 20 percent leakage. And these are cars that we are incentivizing. And so I do think we should make sure that we are closing the loop to make sure that these cars are staying in California. And if not, why not? Are they turning them in? Are they going to something else? And so I do think that that is very important.

Thank you very, very much. Really appreciate all of your efforts. And I'll turn it back to you, Chair

CHAIR RANDOLPH: Board Member Hurt, have a question?

BOARD MEMBER HURT: Yes. Thank you. I just have a quick question. A lot of us have talked about durability and decreasing durability as far as the range of life of a vehicle to some lower numbers than what we've put forth. And so I'm just curious what does that mean for those cars that will then be used cars that will go into the EJ communities, the secondhand cars, and what those costs will be? And are we actually moving backwards when we talk about we want to provide equity if we lower that durability? Because those cars are going directly into those frontline communities.

DEPUTY EXECUTIVE OFFICER SEGALL: Yeah. That's certainly one of our major concerns here. I mean, I'll just be frank about that. We don't want to be in a world where for the majority of people who buy used, the cars decline really dramatically really fast. So heard about the (inaudible), heard about the balance, heard about the facts for sure, but that is one of the big things we're thinking about.

VICE CHAIR BERG: But is -- then is one of the things though to look at a floor? What -- I agree with that. I don't want those cars to also, but do we need 75 percent for Lucid, you know, from 500 miles? So I think we -- what I'm hearing is maybe we want to protect that absolute -- that middle territory, but we've got to be willing to pay the price then.

CHAIR RANDOLPH: So let me -- let me ask a process question and then -- and then I'm going to try to summarize where we are.

First of all, while we were talking, we lost our quorum, which means that the proposed staff resolution will not be voted on today, but we will sort of effectively do the same thing, because the resolution basically says staff keep working on this and bring -- listen to comments -- in fact, it specifically said evaluate all comments received, if appropriate, prepare and circulate any additional environmental analysis, consider and develop any appropriate related modifications to the proposed regulations, make them available for public comment. So we will do all of that, but we won't be officially voting on that piece.

So maybe, Jen, could you kind of summarize from a process standpoint what the next steps are and then I will talk about substance.

STCD CHIEF GRESS: Sure. Good afternoon. So over the next probably week to 10 days we'll be thinking about all the feedback that we got here today and we'll be working through some additional modifications that we will add to the staff suggested changes that we talked about in the -- in the presentation.

So that then package we'll put out for a 15-day review process. And then we'll summarize the comments and put together a final package and come back in August for a vote on the whole proposal.

CHAIR RANDOLPH: So if -- if members of the public want to comment on the 15-day changes, can you just explain briefly what the process for that will be?

STCD CHIEF GRESS: Um-hmm, yeah. It will -- it will be very similar to the -- to the public comment period we just had on the 45-day proposal, except that the comment period will only be 15 days. So it's the same general process. We'll be putting out amendments to the proposal. They'll have 15 days to review it, submit comments. We will then, when the comment period closes, consider all of those comments.

CHAIR RANDOLPH: And so the package that you have identified as the 15-day package is sort of the initial draft. And so folks can digest that, think about that, they've listened to all of our comments. I'm going to walk through some of the things that we have talked about, so they can digest that, in the meantime.

Then when the official 15-day package comes out, they can compare the two, see what differences there are, and comment on those during that 15-day comment period.

STCD CHIEF GRESS: That's exactly right.

CHAIR RANDOLPH: Okay. Board Member Kracov.

BOARD MEMBER KRACOV: And just -- so just walk us through -- thank you, Jennifer Gress on this. So this is going to be mid-July when those folks are going to commenting?

STCD CHIEF GRESS: We'll probably -- we'll probably have a package out within a couple of weeks.

BOARD MEMBER KRACOV: Okay. So, you know, just looking at the comments today, they're quite technical in nature. There's a lot of red lines, so encourage, you know, the folks, the OEMs and others, to really look at it during that time period.

So they're going to make their comments and then what happens?

STCD CHIEF GRESS: We will consider them. At this point, probably -- I mean, we're on a very tight timeline --

BOARD MEMBER KRACOV: Right.

STCD CHIEF GRESS: -- to adopt the final proposal. So the package that we put out, we are hoping is our final, final set of amendments to the proposal.

And then what we bring to you will reflect the 15-day package. We're -- I mean, in our ideal situation, we are not making additional changes beyond what gets proposed in the 15-day package.

CHAIR RANDOLPH: And then the Board will vote on that final package in August.

STCD CHIEF GRESS: Yes.

CHAIR RANDOLPH: Okay. All right. So I'm going to try to summarize kind of generally what we've heard. I think there is some interest that -- in staff continuing to noodle over are there ways to make the equity provisions more attractive in terms of just, you know, finding ways that will encourage them to be used, but not reduce overall stringency, right? So staff will kind of mull that over and discuss that with stakeholders and see if there's some more options there.

A couple of Board members did express an interest in increased stringency in the early years, but I'm not hearing a consensus around that, given the challenges of meeting the aggressive stringency that we did propose. And I would point stakeholders once again to slide 5 in the staff presentation, which really shows that first staff, you know, increased the stringency significantly from the proposal in 2021, but more importantly that those lines do converge and we get to 100 percent, which is the most important thing we need to see.

I did her some concern about durability requirements and perhaps maybe providing more flexibility in the early years at least, like maybe looking at the UN proposal for the early years, because this concern seemed to be -- and anybody -- folks can correct me if I'm wrong, that we didn't want to increase costs too much in the early years and we wanted to be very cognizant of that.

And Board Member Hurt had expressed a concern that, you know, the purpose is to make these vehicles robust in the used car market, which I think we all agree with. But, you know, one point is that there is an opportunity for consumers before they purchase a car to be able to see the state of the health, now that there's a requirement to identify that state of health so they know what they're buying, but also if we think of this as more of an early strategy, and as we learn more, you know, you can build a trajectory where you're increasing durability requirements over time. Is that a thing? I'm looking at you, Mr. Segall.

DEPUTY EXECUTIVE OFFICER SEGALL: That is potentially a thing that we're already starting to think about.

CHAIR RANDOLPH: Okay.

DEPUTY EXECUTIVE OFFICER SEGALL: I will say it would be less of a thing if it did not have a good clear regulatory ark toward more durability standards in later years, simply because you want to put a good target for people to aim at that's real. So some of the autos have suggest just collect data forever. It will surprise you, not a thing.

Looking at the early years and talking about it, we've heard the message there.

CHAIR RANDOLPH: Okay.

DEPUTY EXECUTIVE OFFICER SEGALL: I'm not sure how much of a cost center as people may think, but we'll look at it.

CHAIR RANDOLPH: Okay. And whatever you end up sort of presenting out for 15-day changes, you know, whatever additional information you can share about costs I think would be helpful when the Board reviews it in the fall.

A few folks mentioned getting back to that cost theme, some of these questions around extra cords, and extra pieces of equipment, which I have to say I'm a little skeptical that that really increases cost that much, but I wanted to sort of let -- you know, find -- I don't -- I didn't quite hear a full consensus on that, so if any Board members have a strong feeling about additional equipment that might add some cost. Dr.

Pacheco-Werner mentioned it. Anybody else have strong feelings about it.

BOARD MEMBER HURT: Can we here from the staff at a future meeting how much a cost we're stalking about, just to put it in perspective?

DEPUTY EXECUTIVE OFFICER SEGALL: Sure. Joshua, do you want to talk about this now.

BOARD MEMBER HURT: And if not now, later. I just --

BOARD MEMBER KRACOV: Each person has their topic area, you know.

(Laughter.)

STCD ADVANCED CLEAN CARS BRANCH CHIEF CUNNINGHAM:

Yeah. Sure. Thank you. Joshua Cunningham. Yeah. We have some very limited data on what automakers would sell those cords for, and it varies within the range of a few hundred dollars for some of the automakers, but it varies. I think what's really important to emphasize is that even for today's cars, where many automakers are offering the cord set at just a Level 1 capability. It's important -- it's a benefit for those buyers when they get home to be able to use the car immediately without having already installed the charger. It provides an option for them to experiment with the car, plug into a regular outlet, learn what their driving behavior is before deciding whether they need a home charger, how big of a circuit they need to install.

Now, some drives are not going to have access to any outlets who live in an apartment for example. And so it doesn't help them, but it provides the flexibility to -- of just having a basic cord set to begin with.

Our proposal is taking it to the next level, which is to require the cord set to be certainly offered in the car for all automakers, most do right now, but to also take it to Level 2 capability. We think that provides an extra value for some of the lower income homeowners or homeowners that live in apartments of any income level who don't have the ability to install a home charger, but may have access to a receptacle, a Level 2 circuit. The cost of adding that home charger fixed appliance could be offset with having that Level 2 convenience cord and gives that driver an immediate capability to have Level 2 much faster charging at their house, as long -- as long as they have a circuit.

So it's not a perfect solution. You still have to have access to that wall plug, but we think it provides one additional mechanism that provides more options for homeowners that may not have the immediate financial capability to buy a home charger and we don't think it adds much money to the car.

CHAIR RANDOLPH: Okay. Then my inclination is to sort of let that sit as is.

All right. And then a couple of other things I would like staff to think about are -- oh, I also -- there was some discussion about the plug-in hybrids. I'm comfortable with staff's proposal at point. I think it strikes the right balance. So I'm not hearing a big consensus on changing that.

And then I will -- I do kind of -- would like staff to give some thought about sort of what the follow-on steps are. I don't know that we need like a full on technology review type step, but I do think that perhaps in like 2025 an update to the Board on kind of market conditions would be useful and then also thinking about maybe a, you know, 2028, 2029 kind of update on implementation, like how is it going, what is the -- what has been happening in the market.

And then, you know, maybe kind of more frequent updates around ongoing conversations about equity, because I think, kind of to the point some of us have made, this regulation in and of itself is not sufficient to get us -- no matter what we put in terms of crediting, it's not going to get us to where we need to go. So I think we need to be thinking sort of separately from this regulation how are we thinking about metrics for equity, how are we thinking about ensuring that the various levers that we're using, the incentives, the infrastructure, you know, engaging with non-profits who are really active in this area. We've talked about this -- these a lot, but we don't really have a coordinated kind of place or process to have that conversation.

So I think it's going to be -- I would like to see in the next few months us build some sort of kind of interactive, you know, working group process, or something like that, where we can kind of pull stakeholders together and have kind of a larger conversation about all of these different approaches, and are we make -- are we -- are we making sure that everything is consistently moving in the right direction. And so, you know, that seems like the kind of thing that maybe after the State budget lands, it might be a good opportunity to have that conversation.

So I think that covers it. And I just will repeat what so many others have said, the expertise and depth on the staff is just amazing and we really appreciate all the work you've put into this, all the incredible thought and technical knowledge, and work with stakeholders. And very excited to get the 15-day process -- 15-day change process underway and land this plane in August.

(Laughter.)

CHAIR RANDOLPH: And also thanks to the 177 states for being 177 states for us, because without them, this would be a fraction of the -- of the possibilities.

So I think we still have open public comment. So sorry.

Oh, Gideon.

BOARD MEMBER KRACOV: Sorry, Chair. You certainly merit finishing this up -- I'm sorry -- because you merit the last word. And thank you for assimilating all the comments.

Just a knit from my last questions on process, Jennifer Gress. So we went to the effort of putting all these really detailed 15-day, so -- and then we're going to assimilate what we've heard and then do sort of a final, near final 15-day. But in the meantime, these are on the street. People should comment on these now, because that will also help inform this final, near final 15-day, right? If folks have comments, they should get it to you -- who care about the details, they should get it to you as soon as possible, correct?

CHAIR RANDOLPH: Not officially.

STCD CHIEF GRESS: These are -- this is -- so the document that's available right now is simply basically a communications tool. This illustrates the language -- this is the draft language to illustrate the comments that we put in the staff presentation. It's not an actual proposal, but it is the basis that we're going to start from as we take in all these comments. So I would say that immediately, you know, stakeholders could use that draft to talk with us, and that would be fine. But we're going to be releasing an official 15-day package in a couple of weeks for an official public review comment period. I hope that's clear.

CHAIR RANDOLPH. Right, because basically we closed the comment record and it -- the comment record will be reopened with the 15-day changes. So any comments in that interim will be informal interactions with staff. They won't be formal comments on the record.

All right. That closes this item. Thank you so much for all your work.

And now it is time to move on to open public comment on items not on the agenda.

BOARD CLERK ESTABROOK: Chair, it looks like there is no one with their hands raised in Zoom at this time.

There are no hands raised for the open comment.

CHAIR RANDOLPH. All right. We wore everyone out, so this meeting is adjourned.

Thank you.

(Thereupon the Air Resources Board meeting adjourned at 5:50 p.m.)

CERTIFICATE OF REPORTER

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of June, 2022.

JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063