MEETING

STATE OF CALIFORNIA
AIR RESOURCES BOARD

CALEPA HEADQUARTERS

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SACRAMENTO, CALIFORNIA

THURSDAY, DECEMBER 14, 2017 9:09 A.M.

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

APPEARANCES

BOARD MEMBERS:

Ms. Mary Nichols, Chair

Ms. Sandra Berg, Vice Chair

Dr. John Balmes

Hector De La Torre

Mr. John Eisenhut

Senator Dean Florez

Assembly Member Eduardo Garcia

Supervisor John Gioia

Ms. Judy Mitchell

Mrs. Barbara Riordan

Supervisor Ron Roberts

Supervisor Phil Serna

Dr. Alex Sherriffs

Professor Dan Sperling

Ms. Diane Takvorian

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Ms. Edie Chang, Deputy Executive Officer

Mr. Steve Cliff, Deputy Executive Officer

Mr. Kurt Karperos, Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Ms. La Ronda Bowen, Ombudsman

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- Ms. Veronica Eady, Assistant Executive Officer
- Ms. Michelle Buffington, Manager, Off-Road Agricultural Strategies and Incentives Section, Mobile Source Control Division(MSCD)
- Ms. Nicole Dolney, Branch Chief, Transportation Planing Branch, Air Quality Planning and Science Division(AQPSD)
- Ms. Trish Johnson, Air Pollution Specialist, Industrial Strategies Division(ISD)
- Mr. Nesamani Kalandiyur, Manager, Transportation Analysis Section, AQPSD
- Ms. Stephanie Kato, Staff Air Pollution Specialist, ISD
- Ms. Deborah Kerns, Senior Attorney, Legal Office
- Ms. Leslie Kimura Szeto, Manager, Sustainable Communities Policy and Planning Section, AQPSD
- Ms. Heather King, Air Pollution Specialist, Sustainable Communities Policy and Planning Section, AQPSD
- Mr. Jack Kitowski, Chief, MCSD
- Ms. Lisa Macumber, Manager, Innovative Light-Duty Strategies Section, MSCD
- Mr. Gabriel Monroe, Attorney, Legal Office
- Ms. Lucina Negrete, Branch Chief, Innovative Strategies Branch, MCSD
- Mr. Andrew Panson, Staff Air Pollution Specialist, Innovative Strategies Branch, MSCD
- Ms. Rajinder Sahota, Assistant Division Chief, ISD
- Mr. Jonathan Taylor, Interim Division Chief, AQPSD

A P P E A R A N C E S C O N T I N U E D

STAFF:

Mr. Floyd Vergara, Division Chief, ISD

Mr. Jacob Zielkiewicz, Air Pollution Specialist, ISD

ALSO PRESENT:

Mr. Alan Abbs, California Air Pollution Control Officers Association

Ms. Fariya Ali, Pacific Gas & Electric

Ms. Chloe Ames, Climate Resolve

Mr. Ivan Altamura, Global Automakers

Mr. Will Barrett, American Lung Association

Mr. Sam Bayless, California Independent Oil Marketers Association

Ms. Susie Berlin, Northern California Power Agency, MSR Public Power

Mr. Drew Bohan, California Energy Commission

Mr. Kealii Bright, Natural Resources Agency

Mr. Todd Campbell, Clean Energy

Mr. Tim Carmichael, Sempra Energy Utilities

Ms. Akeele Carter

Ms. Llesenia Cevallos, EHC

Mr. Nicholas Chavez, School Transportation Coalition, California Association of School Transportation Officials

Mr. Andrew Chesley, San Joaquin Council of Governments

Ms. Cynthia Cory, California Farm Bureau Federation

- Mr. Jon Costantino, SCCPA
- Ms. Christina Darlington, Placer County Air District
- Mr. Sean Donovan, International Emissions Trading Association
- Mr. Steven P. Douglas, Alliance of Automobile Manufacturers, Inc.
- Mr. Sean Edgar, CleanFleets.net
- Mr. Randal Friedman, Department of Defense
- Mr. John Gamboa, California Community Builders
- Ms. Rachel Golden, Sierra Club
- Mr. Gary Graham Hughes, Friends of the Earth, U.S.
- Mr. Rod Headley, Central California Power
- Ms. Jennifer Hernandez
- Mr. Henry Hilken, Bay Area Air Quality Management District
- Ms. Bonnie Holmes-Gen, American Lung Association in California
- Mr. Mike Hursh, AC Transit
- Mr. Hasan Ikhrata, Southern California Association of Governments
- Ms. Melissa Immel, Solid Waste Association of North America
- Mr. Michael Jacob, Pacific Merchant Shipping Association
- Mr. Greg Karras, Communities for a Better Environment
- Ms. Kim Kawada, San Diego Association of Governments
- Mr. Ryan Kenny, Clean Energy

- Ms. Linda Khamoushian, California Bicycle Coalition
- Mr. Ken Kirkey, Metropolitan Transportation Commission, Association of Bay Area Governments
- Ms. Dona Lacayo, Port of Hueneme
- Mr. John Larrea, California Food Producers
- Mr. Thomas Lawson, California Natural Gas Vehicles Coalition
- Mr. Kent Leacock, Proterra
- Ms. Jenny Lester Moffit, California Department of Food and Agriculture
- Mr. Roger Lin, Center on Race, Poverty and the Environment, California Environmental Justice Alliance
- Mr. Charles E. Love, Jr., Love's
- Mr. Edward Lovelace, XL Hybrids
- Mr. Richard Lyon, California Building Industry
- Ms. Brenda Kuehnle, Chevron
- Mr. Bill Magavern, Coalition for Clean Air
- Mr. Bruce Magnani, Gerdau Steel, U.S. Borax, Rio Tinto Minerals, California's Cement Manufacturers
- Ms. Carolina Martinez, Environmental Health Coalition
- Ms. Deanna Martinez, Shell
- Mr. Michael McCormick, Governor's Office of Planning and Research
- Ms. Amy Mmagu, CalChamber
- Ms. Urvi Nagrani, Motiv

- Mr. Brian Nowicki, Center for Biodiversity
- Mr. Mike Neuenburg, Sacramento Metropolitan Air Quality Management District
- Ms. Rachel O'Brien, Agricultural Council of California
- Mr. Jimmy O'Dea, Union of Concerned Scientists
- Mr. Chris Peeples, AC Transit
- Ms. Michelle Passero, The Nature Conservancy, Pacific Forest Trust, California ReLeaf
- Ms. Kathryn Phillips, Sierra Club California
- Mr. Michael Pimentel, California Transit Association
- Mr. Raul Portugal, Central California Power
- Ms. Katelyn Roedner Sutter, Environmental Defense Fund
- Ms. Mari Rose Taruc, Environmental Justice Advisory Committee
- Ms. Ana Reynoso, Environmental Health Coalition
- Ms. Tiffany Roberts, Western States Petroleum Association
- Ms. Jamesine Rogers Gibson, Union of Concerned Scientists
- Dr. Linda Rudolph, Public Health Institute
- Ms. Stephanie Tsai, Climate Justice Program
- Mr. Tim Schott, California Association of Port Authorities
- Mr. Matt Schrap, Velocity Vehicle Group
- Ms. Phoebe Seaton, Leadership Counsel for Justice and Accountability
- Mr. Ryan Schuchard, CALSTART

- Mr. Mark Sedlacek, Los Angeles Department of Water and Power
- Mr. Perin Shah, Asian Pacific Environmental Network
- Mr. Michael Shaw, California Manufacturers & Technology Association
- Mr. Mikhael Skvarla, California Council for Environmental and Economic Balance
- Mr. Adam Smith, Southern California Edison
- Mr. Jeremy Smith, State Building and Construction Trades Council
- Ms. Shelly Sullivan, Climate Change Policy Coalition
- Mr. Kirk Trost, Sacramento Area Council of Governments
- Ms. Eileen Tutt, Low Carbon Transportation Coalition
- Ms. Amy Vanderwarker, California Environmental Justice Alliance
- Mr. Emanuel Wagner, California Hydrogen Business Council
- Mr. David Weiskopf, Next Gen California
- Mr. James Worthley, San Luis Obispo Council of Governments
- Mr. Andy Wunder, Ceres
- Mr. Steven Yang, Chevron
- Mr. William Zobel, Trillium CNG

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PROCEEDINGS

CHAIR NICHOLS: Good morning, ladies and gentlemen. Sounds like the system is working. The Board is gathered. So I'm going to call this meeting to order. And before you get too settled, let's please stand and say the Pledge of Allegiance.

(Thereupon the Pledge of Allegiance was recited in unison.)

CHAIR NICHOLS: I have to say -- I'm not going to say anything more political than this, but the Pledge of Allegiance seems to me to be more meaningful now than it ever has before.

All right. We will call the roll, please, Madam Clerk.

BOARD CLERK McREYNOLDS: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK McREYNOLDS: Mr. De La Torre

Mr. Eisenhut?

BOARD MEMBER EISENHUT: Here.

BOARD CLERK McREYNOLDS: Senator Florez?

BOARD MEMBER FLOREZ: Here.

BOARD CLERK McREYNOLDS: Assembly Member Garcia?

Supervise Gioia?

Senator Lara?

Ms. Mitchell?

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BOARD MEMBER MITCHELL: Here.
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             BOARD CLERK McREYNOLDS: Mrs. Riordan?
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             BOARD MEMBER RIORDAN:
                                    Here.
             BOARD CLERK McREYNOLDS:
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                                       Supervisor Roberts?
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             BOARD MEMBER ROBERTS: Here.
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             BOARD CLERK McREYNOLDS:
                                       Supervisor Serna?
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             Dr. Sherriffs?
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             BOARD MEMBER SHERRIFFS:
                                      Here.
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             BOARD CLERK McREYNOLDS: Professor Sperling?
             BOARD MEMBER SPERLING: Here.
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                                      Ms. Takvorian?
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             BOARD CLERK McREYNOLDS:
             BOARD MEMBER TAKVORIAN:
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                                      Here.
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             BOARD CLERK McREYNOLDS:
                                      Vice Chair Berg?
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             VICE CHAIR BERG: Here.
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             BOARD CLERK McREYNOLDS:
                                       Chair Nichols?
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             CHAIR NICHOLS: Here.
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             BOARD CLERK McREYNOLDS: Madam Chair, we have a
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    quorum.
             CHAIR NICHOLS: Great. Thank you.
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             A couple of announcements before we get started
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    on our agenda. First of all, I want to make sure that
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    everyone knows that we have interpretation services
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    available today in Spanish for the first two items, that
24
    is the update on SB 375, the greenhouse gas emissions
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reduction targets, and also for the item on the scoping

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plan.

Head sets are available outside the hearing room at the sign-up table, and can be picked up at any time.

(Thereupon translation into Spanish.)

CHAIR NICHOLS: Thank you.

A reminder for everyone who might wish to testify that we appreciate it if you fill out a request to speak card, which is also available in the outside lobby, and turn it into the Board assistant or the clerk prior to the item actually being presented, so we can organize the speaker list and get some sense of how much time we need to allocate for the item. We also want to remind everyone that speakers are limited to 3 minutes of oral testimony. We do appreciate it if you give your name and -- give us your first and last name, sorry, when you come up to the podium and put your testimony in your own words. But you do not need to read your written statements, since it will also be entered into the record.

And I'm also required by some regulation or another to announce that the emergency exits in this room are at the rear of the room, and on both sides of the podium. And if an alarm goes off, we are required to evacuate this room immediately, go down the stairs, and out of the building and gather in the park across the street until the all-clear signal is given. And then

we'll come back and resume the hearing.

That has actually happened at least once in my time on this Board, so I know it's a possibility.

Okay. The first item that we have on our agenda this morning is an informational update on the proposed updates to the SB 375 greenhouse gas emissions reduction targets. SB 375, also known as the Sustainable Communities and Climate Protection Act of 2008 established a process for reducing greenhouse gas emissions from passenger vehicles through more sustainable land use and transportation planning.

The Board originally set the targets for the State's 18 metropolitan planning organizations in 2010, and we're required to update those targets every eight years.

Our role as ARB in updating the targets gives us an opportunity to guide local land use and transportation decision making towards meeting multiple goals, reducing greenhouse gas emissions, while building healthier communities. These targets play a critical role in meeting our climate change and air quality goals. Both the scoping plan and the mobile source strategy identified reductions in vehicle miles traveled from land use and transportation systems as a necessary element of our statewide strategy.

When we originally started down this path with our MPO, and other stakeholder partners working to transform land use and transportation, it was frankly quite a bit of an experiment. Collectively, I would say we've all learned a lot about opportunities to improve this program. In particular, I think many of us will readily acknowledge that quantifying the transformation has proven far more complex than anyone imagined. We now see the need for greater focus on implementation and less on models and for measuring real progress on the ground.

Before I turn to staff, I want to acknowledge that we have representatives of several MPOs and State agencies with us, and that they will be sharing their perspective as well.

Mr. Corey, would you please introduce this item?

EXECUTIVE OFFICER COREY: Yes. Thanks, Chair

Nichols. At the March 2017 Board hearing, SB 375 program staff and MPO representatives reported on the target updates process to date. Since that time, staff have conducted public workshops around the state to solicit feedback on targets, as well as conducted several follow-up meetings with MPO and other stakeholders.

Based on the feedback received, staff is proposing programmatic changes to the current target framework, as well as methods we use to evaluate MPO plans

as part of the target update. These changes are intended to achieve more effective program implementation by placing greater emphasis on local and regional agency strategy and investment decisions, as well as more regular reporting and tracking of those commitments over time.

I'll now ask Heather King of our Transportation Planning Branch to give the staff presentation.

Heather.

(Thereupon an overhead presentation was presented as follows.)

AIR POLLUTION SPECIALIST KING: Can you guys hear me okay?

Okay. Thank you.

Thank you, Mr. Corey.

Good morning, Chair Nichols and members of the Board.

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AIR POLLUTION SPECIALIST KING: Today's information item builds on the update CARB staff presented to you last March. At that meeting, your discussion acknowledged the need for and great challenge of transitioning to a future where people have clean alternatives to traveling by single occupancy vehicle. You asked staff to continue engaging with MPOs and interested community stakeholders to develop a path

forward that supports achieving more in this space. We've done that, and this presentation will provide an update on CARB staff's current thinking on what we can do to more effectively implement the SB 375 program and better align, transportation, environmental, and social goals.

Today, we will be recommending a paradigm shift in the way CARB applies the SB 375 targets and evaluates SCSs moving forward. I will also talk about associated work we plan to undertake with our partners in the new year to identify new strategies beyond SB 375 to meet the goals recommended in the 2030 scoping plan.

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AIR POLLUTION SPECIALIST KING: Before I get to CARB staff's thoughts on what can be done to better implement SB 375, I'll briefly recap where we are in the program.

Under SB 375, California's 18 Metropolitan

Planning Organizations, also known as MPOs, have prepared

Sustainable Communities Strategies, or SCSs, to meet

region-specific greenhouse gas reduction targets for

passenger vehicles. Those targets are set by this Board,

which adopted the initial targets in 2010. The targets

must be updated every eight years. MPOs prepare regional

transportation plans and SCSs on a 4-year cycle, with some

MPOs currently developing their second and third

iterations of these perhaps under the SB 375 program.

To date, CARB staff have reviewed over 20 regional SCSs, all of which have met or exceeded their current targets.

However, recent data suggests that vehicle miles traveled, are VMT, is going up. This is one reminder of the great challenge we face in this program.

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AIR POLLUTION SPECIALIST KING: The measure of whether a regional SCS is doing what SB 375 intended is whether and how it incorporates new or enhanced policies and investments to improve people's everyday transportation options. Essentially, does the region's strategy incorporate policy commitments and investments that support infill and mixed-use development with housing choices for all income levels, and delivering clean multi-modal, and affordable transportation choices?

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AIR POLLUTION SPECIALIST KING: With those as guiding program objectives, CARB staff asked ourselves what, if anything, we could do in our target update to better capture that intent.

A great deal of analytical work, stakeholder feedback, and MPO input, changes to State law, and program experience has led us to believe that more ambitious

targets are achievable and needed. But the targets alone don't give us the insight we need to determine if SB 375 is really working.

To get where we want to go, we'll need a better understanding of what strategy commitments are included in each plan and how they will be implemented.

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AIR POLLUTION SPECIALIST KING: In October, staff put forward its original proposal for updates to targets and recommended a future process to improve program implementation. Since that time, we've had several additional conversations with impacted MPOs and community advocates to explore those ideas further. And based on those conversations, we are proposing to revise our original proposal.

Staff's revised proposal, shown in the right most bar on this slide, is estimated to achieve a 19 percent reduction in statewide average greenhouse gas emissions compared to 2005 levels. There is about a 1 percent difference between staff's October proposal and the revised proposal. Both proposals are expected to get us further than the current 2010 targets of 13 percent, and what adopted SCSs are projected to achieve, which is 18 percent.

And while staff's revised proposal includes

walking the numbers back a bit from what we previously proposed, it includes some new important reporting and tracking elements to strengthen program implementation and increase transparency.

Under either proposal, you'll notice there's a gap between what the scoping plan scenario calls for from this sector and what the SB 375 program can contribute. I will talk more about this later in the presentation.

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AIR POLLUTION SPECIALIST KING: Staff's proposed revisions respond to feedback we heard across a number of stakeholder groups calling for a shift in how SB 375 is currently implemented. We heard a desire for a new path forward that puts the focus back on the SCS strategies, and not the modeling.

That is what specifically is being done to put in place land use and transportation policies and investments; that makes sure local and regional stakeholders are continuing to innovate and do more in this space; and results in new and enhanced tools to track implementation of those policies.

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AIR POLLUTION SPECIALIST KING: Staff is proposing three key changes to its original proposal. The first is putting in place changes to our current target

framework and evaluation process to recognize and isolate actual changes to land use and transportation policies and investments. Our goal is to overcome the effects of assumptions about price of fuel, household income, and fleet efficiency, and focus more squarely on the efforts jurisdictions are actually making.

Second is incorporating additional reporting and data tracking by the MPOs related to how their investments and their project lists support their claimed commitments to greenhouse gas reduction strategies, as well as information on how they will be tracking SCS implementation over time.

And third is adjusting the 2035 targets to reflect the latest discussions and information shared by the big 4 MPOs, which represents an increase in commitment from their original recommendations to us, but is less than what we initially proposed in October.

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AIR POLLUTION SPECIALIST KING: This figure illustrates the current SB 375 target framework, and shows that within any given MPOs greenhouse grass reduction target, there are a number of factors that are baked in. These factors include progress made through the region's policy decisions on transportation, infrastructure, and land use change. But at the same time, they include

emissions reductions associated with changes in long range assumptions for things like the economy, the price of fuel, and changes in future demographics, all of which are important for planning, but are not controlled by local and regional efforts.

Isolating the emissions reductions attributable to SCS strategies is what we care about. We are currently working with the MPOs and other stakeholders to develop a method and documentation criteria for how to quantify the greenhouse gas benefits of the SCS strategies only.

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AIR POLLUTION SPECIALIST KING: In addition to framework adjustments, CARB would also start asking MPOs questions that we haven't asked of them before. This slide lists some examples of the additional reporting and tracking information we would be looking for from the MPOs. This is not all inclusive.

Other metrics that we propose incorporating include reporting on VMT, criteria pollutant emissions, and accessibility for example. Related to the items listed here, we would be asking for more detail on the types and timing of investments, information on how the MPO's transportation project list would promote achievement of the greenhouse gas targets, and whether implementation efforts support success by including

mechanisms to track progress and avoid unintended consequences.

A common example of this is the presence of supportive anti-displacement policies in a region.

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AIR POLLUTION SPECIALIST KING: This slide summarizes staff's current thinking on revised proposed targets for the four largest MPOs in the state.

Under staff's revised proposal, targets would be accompanied by additional reporting requirements that demonstrate progress directly tied to new or enhanced SCS strategies. We would look to use this next planning cycle to begin testing the new framework to quantify the impacts of enhanced land use and transportation strategies.

If it is successful, we would explore the potential to move forward this new target setting paradigm designed to incentivize incremental progress. We are currently in talks with SACOG about a potential pilot for this, which is why we show a range for their target in that chart.

Staff does not propose any revisions to the October proposal for the 8 San Joaquin Valley MPOs nor for the 6 small remaining MPOs. However, we will expect them to begin thinking about the new quantification framework and additional reporting in their next planning cycle.

Staff also does not propose any revisions to the targets for year 2020 that we proposed in October.

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AIR POLLUTION SPECIALIST KING: Since we began down this bath to update the targets, we readily acknowledge that SB 375 is not a silver bullet. It is only one tool to get at the VMT reductions needed from the transportation sector. Under either proposal, additional strategies beyond SB 375 are needed.

These strategies to close the gap are already in development through conversations with MPOs, State agencies, and advocates, and will continue next year. The 4 initial opportunities identified in the scoping plan and already under discussion include:

Implementation of the recent SB 1 transportation bill and housing bills, and making sure new dollars are directed towards sustainable development rather than growth-inducing projects;

Development of complementary State and local policies to expand pooling opportunities with transportation network companies and connected autonomous vehicles;

Adjusting performance measures used to select and program State, regional, and local transportation projects;

And further development of State, regional, and local mileage based congestion or parking pricing tools for managing vehicle activity impacts and generating funds for sustainable transportation solutions.

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AIR POLLUTION SPECIALIST KING: Our next step will be to conduct a public process on the proposal before you today, prior to bringing a formal proposal for the target update to the Board for adoption in spring 2018.

We have a lot more work that we will be pursuing over the next 10 months. We will partner with our sister State agencies to engage with MPOs, local transportation agencies, and other interested stakeholders to further develop the needed additional State and local policies to meet our scoping plan goals.

We will be updating our SB 375 program guidelines to reflect the new framework for evaluating SCSs and target achievement, which will include new sections on MPO reporting, and a draft of that will be anticipated this summer.

And we will be preparing the first annual program progress report to the legislature on SB 375 implementation due by September 1st. This report will highlight program achievement to date, as well as challenges. This new role will set up CARB to be more of

a clearinghouse for best practices across MPOs, as well as have us tee up important discussions on tying funding to demonstrated progress. CARB staff will share our findings with you later next year.

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AIR POLLUTION SPECIALIST KING: Before we go to question for staff, I would like to invite Brian Annis, Undersecretary for the California State Transportation Agency, who is here today to share a few additional insights on the new landscape of transportation funding afforded under SB 1.

Thank you.

CHAIR NICHOLS: Good morning.

(Thereupon an overhead presentation was

Presented as follows.)

MR. ANNIS: Good morning. Happy to be here this morning to talk about Senate Bill 1, which is one of the big 3 legislative packages of 2017. The other 2 of course being the housing package and the cap-and-trade extension. SB 1 was developed over a couple years of working with legislative leaders, and I should say many people in this room as well. We had a lot of support, and I see many people involved in the SB 1 effort in this room. So I want to thank them. I won't name them, but you know who you are, and thank you.

We're very proud of the package.

Go to the next slide, please.

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MR. ANNIS: SB 1 is -- to highlight the key provisions, SB 1 is very focused on fix it first. In fact, about two-thirds of the funding is directed to improvements to neighborhood streets, highways, bridges, to improve safety and accessibility and travel for all users of those roads and highways.

SB 1 also provides historic levels of funding for public transit, and operating expenses, and also for active transportation. And as an illustration of that, pictured here is a Caltrans employee giving a ARB employee bike ride. So we're --

(Laughter.)

MR. ANNIS: -- happy to help however we can.

Lastly, Senate Bill 1 funds priority freight and congested corridor investments.

Next slide.

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MR. ANNIS: As is -- has been the historic practice, State transportation funds are often split with significant portions being distributed to the local level, and that's the case here as well. About half of the SB 1 funds, or about 26 million -- billion over a 10-year

period is distributed to cities, counties, local transit agencies. And the other half is for State investments.

Next slide.

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MR. ANNIS: I wanted to focus on some strategic investments in SB 1. So these are going beyond the fix it first areas. The biggest category here is new funding for transit. Over 10 years about 7.5 billion. About half of that amount is by formula that goes out to transit agencies all over this State, so every transit agency will benefit.

The other half of the money is for a competitive program. And actually, we were really happy with the climate -- California Climate Investment Program funded with cap-and-trade funds, the Transit and Intercity Rail Capital Program. So instead of creating a new program with SB 1 funds, we're using the SB 1 funds to supplement that existing cap-and-trade funded program.

And that has been very successful to date. I know some of the Board members have gone to some ribbon cuttings there. It's funded new Metrolink locomotives in Southern California that are Tier 4, and also some of the Muni car replacement in San Francisco. Some of those cars are now out in service and those were funded through this program.

The program also funds bike and pedestrian projects, 100 million a year, or 1 billion over 10 years. This is for the active transportation program that the State started in 2013. Before that program, we had a scattering of very small bike and ped programs. The bicycle account was about 7.2 million a year. There were some other programs that didn't get specifically appropriated, but there were some small amounts for safe routes to schools and other things.

But with the creation of the active transportation program, over 1 billion of projects to date have been programmed, and we're on a cycle now where every 2 years, the program will award about \$440 million around the State for bike and ped projects.

On the bottom two examples here, we also have programs that are new to address congestion experienced by freight, and congestion for commuters. Both of these have some touchpoints with the Air Board. The Trade Corridor Enhancement Program follows the model of Prop 1B, which is a 2006 Bond Act, and is consistent with the recent Sustainable Freight Action Plan.

We see with this program some funding for infrastructure. And through the cap-and-trade expenditure plan, like Prop 1B, there's funding for some clean air freight projects as well. The guidelines for the Trade

Corridor Enhancement Program recently adopted by the California Transportation Commission. And they include input from ARB on how to assess projects for air quality.

The last program here Solutions for Congested

Corridor Program is a bit of a different approach to how

we might mitigate some of the -- the most extreme

congested corridors in this State. It focuses on those

corridors, which for the most part are already

multi-modal. That Caltrain 101 corridor in San Mateo in

the Bay Area, for example. You see there the Caltrain

system being upgraded. There's also interest in looking

at a -- perhaps an express lane there that would have HOV

users, high occupancy vehicles, and also some of the mass

transit users there that could have a lane that would be

managed to keep efficiency high.

Let me go to the next slide.

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MR. ANNIS: So a couple other things to note on SB 1, it includes 25 million per year to local and regional governments for planning grants to further the SB 375 goals.

That's an ongoing 25 million annually. And then we have a one-time amount of 20 million to fund a regional transportation climate adaptation plan to see things where things like sea level rise or other impacts might be

mitigated as we go forward.

Next slide.

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MR. ANNIS: On sustainability, I wanted to focus a bit on that fix-it first amount, which is two-thirds of the SB 1 package. There's language in that bill that not only allows, but really indicates these things shall happen, where are feasible and cost effective. And those extra investments as we fix our roads are things like using advanced technologies and pavements that reduce greenhouse gas emissions, being mindful of new technologies and communication systems, and trying to accommodate those technologies, such as the autonomous vehicles in our road repairs, including features and projects of course to adapt the assets for climate change, and finally incorporate complete street elements, things such as the bus-only lanes or separated bike lanes that will further grow those modes in our existing infrastructure.

Next slide.

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MR. ANNIS: A couple other things that CalTrans specifically is a requirement to update our highway design manuals. And these are used also by local governments, so cities and counties look to Caltrans design manuals. I

think a lot of it has to do with liability and wanting to use specific guidance. And so those are important beyond the State highway system.

And lastly, SB 1 creates 120 million in start-up funds for advanced mitigation. And that seems to be a win-win for transportation and the environment to accelerate the environmental mitigation, wildlife protection, et cetera that some transportation projects may need. And by doing it early, the environment benefits and the transportation benefits, because then when the project comes along later, you don't have risk of project delays if there's problems implementing those mitigations.

Next slide.

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MR. ANNIS: On the funding, I just wanted to touch on that briefly. SB 1 is fully funded with transportation user fees. They come through gasoline and diesel fuel taxes, and also vehicle fees.

Focusing on the vehicle fee side, there's a variable charge based on the assessed value of the vehicle, which we thought was an equity consideration in the package. So about 48 percent of vehicles, as they get older, they, of course, depreciate. And about 48 percent are less than 5,000 in value, and that would come with a \$25 annual fee when car owners pay their vehicle

registration. On the other end, if you own a car that has an assessed value exceeding \$60,000, the annual feel would \$175.

Also, that -- the legislature wanted to look to the zero-emission vehicles for equity as well. And this includes starting in 2020 a \$100 fee on zero-emission vehicles for vehicles model year 2020 and later. There was discussed concern also about the impact that might have on ZEV sales. So this includes an analysis, I believe, that UC Davis is going to do on the impact of this new fee on zero-emission vehicle sales.

Next slide.

MR. ANNIS: This is a little hard for me to see. Hopefully, you can see it better. This is just a complete accounting, if you will, of all the SB 1 programs. I didn't -- for brevity didn't go through all of them, but there are a few others, such as some funding for transportation-related university research, the freeway service patrol program that has put tow trucks on the highways to clear incidents faster for safety and congestion reductions.

I also wanted to mention there's categories here for parks and agriculture, which seems a little counterintuitive in a transportation package. But this is

associated with the revenue that comes from fuel purchases by people that use that fuel off public records, so fuel people buy for boats or agricultural equipment. As is historically the case, that's being returned to those areas through funding programs that benefit those areas.

Then that completes the presentation. Happy to answer any questions.

CHAIR NICHOLS: Thank you very much. I don't see any questions at the moment. It was a achievement for sure, and definitely, as I believe your Secretaries used to say, not your father's transportation bill. So, yeah, it's a new approach and a good one. So thank you for coming and for sharing in this exciting adventure that we're all involved in.

Before we proceed with the agenda, I wanted to allow our Board Member Dr. Sperling to add a few words, because he's going to have to absent himself for a bit to go over and meet with some legislators. And so before he leaves he wanted -- as perhaps at least one of our most active members on this particular topic, both professionally and as Board member, I thought it would be good to let him have a few words.

BOARD MEMBER SPERLING: Thank you, Chair Nichols.

Yeah, I'm actually very pleased to offer some
thoughts on this. I am -- I have to say I am delighted

with this shift. Those of us that have been involved with SB 375, we had noble aspirations from the beginning. We started to -- the further we went along, we started to appreciate all the challenges of actually accomplishing our aspirations. And as the staff report just kind of offhandedly mentioned, we thought we were doing great for a few years. And then the economy recovered, and lo and behold, actually greenhouse gases were not only not going down towards the target, but we're increasing. VMT was increased and is increasing.

So this is a huge Challenge, and perhaps even greater than we had thought at the beginning. And so this fo -- this refo -- so what we have here is a refocus. And it's a shift. Instead of focusing so much on the modeling results and harassing the MPOs to come up with models that gave the right answers, we're now focusing on actually accomplishments or actions and implementation.

So this is a great turn. So now, of course, now we just have a different aspiration and we have to actually accomplish it. But I think we're on the right path now. And as Brian Annis just presented with SB 1, there's some pieces of SB 1 that are actually very helpful and supportive. I think we have to do even a better job of channeling that money in a way that does really reward the MPOs and the cities counties for doing the right

thing.

And it's not quite so tied to together and the rewards aren't quite there, but it's headed in the right direction. And so I think the big thought I want to give is that we really need to support innovation. We've got a transportation system that's become a monoculture, a monoculture in the sense that everyone basically just drives in their car by themselves. You get up in the morning, you get in your car, you don't even think about other options, and that's where we are.

And so we need a lot of innovation. And the good news is there is a lot of innovation on the -- at hand. And we need to take care -- take advantage of that. And just yesterday, Judy Mitchell, Board -- my fellow Board Member Judy and I were down at the South Bay COG working with them. And we saw there firsthand an example of the kind of innovation we need where they're focusing -- so this is 4 million people, okay. This is not, you know, a little town.

And they're focusing on neighborhood-oriented development, which is actually a new way of thinking about land use, and matching it with neighborhood transportation options. And that's the kind of thing we need. That's the kind of thing we need to be rewarding. That's the kind of thing we need to be incentivizing.

But there's a lot of things that are happening that are not so good, you know, like we need to take advantage of these innovations with shared mobility, and automation, which is, you know, coming up soon. Just an example of that is in Chicago, they just adopted a tax on T -- on Lyft and Uber and micro-transit services, and they imposed it as a tax per vehicle, as opposed to a tax per passenger mile or per passenger.

And that's a huge mistake, because we want to be incentivizing the use of pooling services, and transit services, and micro-transit services. So there's a lot of decisions and a lot of innovation, and we're really at the beginning of it. And so I think we're on the right -- we're starting on the right path. You know, I think we've got good leadership in a lot of places. You know, and I have to call out Hasan Ikhrata, who's going to speak in a moment, who's done a fabulous job down in the SCAG in trying to turn around a lot of those cities and counties, and people that think about these -- along these ways. But, you know, in MTC and SACOG, we're seeing a lot of, you know, good thinking too.

So I just want to endorse this new change.

There's obviously ways of doing this better. But the primary -- and I -- you know, thrust of this is we want to reward innovation, we want to reward leadership, and we

want to focus on action.

And so as long as we keep that in mind here, I think we'll do better. This is tough.

Thank you.

CHAIR NICHOLS: Thank you for that reminder,

Professor Sperling. And thanks for adding your

endorsement to this -- this new approach. I think I

should probably just return to the agenda at this point.

Staff, were you planning to call on any of the other friendly agencies here before we go to the list?

BOARD MEMBER GIOIA: Were you distinguishing with unfriendly agencies, Madam Chair.

(Laughter.)

CHAIR NICHOLS: No, they're all friends. I was just looking for an adjective. Sorry.

DEPUTY EXECUTIVE OFFICER KARPEROS: We -- Chair Nichols, we have them teed up at the start of the --

CHAIR NICHOLS: Okay. Perfect. Then let's go with SCAG's Director, who has just been praised.

MR. IKHRATA: Thank you very much. Good morning, Chairwoman, Board members. And Professor Sperling, thank you for the compliment.

I'm here. I'm the executive director of SCAG, but I'm representing actually today my colleagues from San Francisco, Sacramento, San Diego, and San Joaquin. And

I'm representing them to say we are united in what the professor just talked about, is moving forward, innovating, working together with you to get to where we want to go.

Before I say anything, I want to tell you that your CEO Richard Corey, and Kurt, and Steven the team at the ARB, I couldn't thank them enough, because they made themselves available. We had several conversations. And all the conversation is about us we are one team. We need to change that conversation in California, and we need to change it in the right way.

And, yes, the data right now is saying we have more of us buying cars. And we need to figure out how we get more people in those cars. And so I really appreciate the staff report and presentation. This is not about the numbers and the modeling. This is about the great State that's going to sustain itself into the future, and innovate to get where we want to go.

And I commit to you and SCAG, and I'm sure my colleagues from the other regions that we're going to be with you making sure we work together to achieve not only the scoping plan, but to actually make it happen, not just to show a model that it gets there to make it happen.

I will tell you that I stood in front of you twice already on this. And if you ask me what's the most

significant thing that happened since the first time, I would say, we have changed the conversation in California.

We have changed it, in a significant way. And thanks to your staff and our partner MPOs, we have changed it to the point where now we're thinking at least about how we sustain ourself into the future. So I support the new approach. I welcome the new approach. We have been -- I just want you to know we went to our Board and we called our target. They're very ambitious, because we want to be very ambitious, and we're going to do more with you in partnering to achieve the scoping plan.

So again, I want to thank you, thank your staff, and I look forward to this new approach that is going to yield changing the discussion, is going to yield innovation. And Brian Annis, we're going to hold him to that. He's going to give us more money to do that.

(Laughter.)

MR. IKHRATA: So thank you very much for having me and I appreciate it.

CHAIR NICHOLS: Thank you. Appreciate your coming.

Mr. Kirkey.

Oh, not.

MS. KAWADA: We're a little bit out of order and actually could we advance the slide a couple.

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MS. KAWADA: Hasan mentioned in speaking -- Kim Kawada with SANDAG, San Diego Association of Governments.

I want to echo Hasan, and you'll hear from my colleagues around the state as well working with ARB staff and all the other partner agencies with CalTrans with the State Transportation Agency.

SB 375 has made us better partners. It's made us really sit down at all levels, leadership levels with our Board, at the executive director level here, our planning staffs, our modeling staffs. And we're in support of this idea of a target and also working on implementation and performance monitoring and implementation.

To get where we were today, we did spend a significant amount of time collectively -- all four MPOs -- four major MPO's on modeling looking at, without constraints with the federal requirements and the State requirements that impose on us with regional transportation plans, what things could be done, what levers could be pulled, what tools do we have in our tool box that could reduce greenhouse gas emissions even more, and meet aggressive SB 375 targets.

So I'm not going to read everything here, but you see it on this slide. We've tested land use. We've tested transportation investment scenarios. We've

tested -- you know, with TNCs, and automated and connected vehicles, we tested strategies there. We tested pricing.

And next slide, please.

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MS. KAWADA: What we found in this sort of technical effort that we did was really that not all strategies were equal. While we had hoped that a lot of investments in some of the capital strategies would yield a lot greater results, they were actually more modest. And the things that we really found sort of gave us greater results were things like fuel efficiency, greater impact of autonomous vehicles, connected vehicles, things of that nature and pricing. Obviously, those things, MPOs, in and of themselves, can't do, regions can't do by themselves. And it's really going to rely on partnerships with the State and with, you know, our partner agencies at Caltrans and other folks.

Investment was key, and partnerships are key. The most potential with user fees. We do it -- in the San Diego region, you talk about implementation, we've done pricing and done managed lanes for years for 20 years, and we do find effectiveness there.

We're embarking, Professor Sperling. San Diego is actually 1 of 10 automated vehicle proving grounds in the nation. California has 2 of those 10. Contra Costa

County and then the San Diego region. And so in terms of innovation, we're tying to actually see real world what will these autonomous and connected vehicles do, where can partnerships happen. So at the regional level we're trying to lead, we're trying to innovate, we trying to understand.

More research is needed. Our partners sitting around here today with SCAG, with MTC, we are -- have done projects on future mobility research, on what do TNCs do, what do automated and connected vehicles do for congestion relief, safety, and reducing greenhouse gas emissions. So we're on the right track. And then we fully support, you know, moving forward in this fashion.

And I'll turn it over to my next colleague.

One thing, before Ken comes up, I have to plug.

We are -- we have -- in the San Diego region, we're

actually in the lucky place of being first again, so first

with these new targets. And while we're working really

closely with the staff, the timing is going to be

challenging for us, because we're working on our next

update of the regional plan. And the current scenarios -
we're going to need -- our current timeframe has the Board

and the region working on some scenario development, and

actually selecting a preferred scenario in the summer.

So we'll need to work closely in terms of timing

with your staff, in terms of -- we're going to have to actually assume a 19 percent target to do the scenario planning. So I just want to say we need to actually work real closely on the timing of that.

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MR. KIRKEY: Good morning, Board members. I'm Ken Kirkey, planning director with the Metropolitan Transportation Commission and the Association of Bay Area Governments. And we are fortunate to be last in line in terms of the 4 MPOs in our process. We just adopted our last plan in July, and so we'll be learning from our MPO brothers and sisters as we have in the past couple of cycles.

Can I have the next slide, please?

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MR. KIRKEY: So I'm just going to touch real briefly on how we got here today over the last several months. As has been said by Hasan and Kim, we've had a lot of good back and forth with ARB staff. We've had a lot of collegial conversations together in terms how we —how we would move forward. Based upon the stress test that Kim outlined, we originally came up with 18 percent. And that was — that was really looking at what we thought could happen with really aggressive policies.

ARB staff came back with hire targets. We had

concerns about that, but as has been expressed, including by Professor Dan Sperling, we think this shift toward a real focus on policies and innovation is the right place to go. We could spend the next three or four years talking about models. And we don't think, given this global crisis, that's where we should put our energies. We really tried to make our plans high impact in each of our regions.

We want to have more of an impact. We want to work with local jurisdictions. We want to come up with new funding tools, new ways of really trying to drive down VMT and GHG. And for that reason, with this shift toward innovation, really looking at new tools, how we can work together, we think we can pursue very ambitious targets of 18 to 19 percent for our four regions. So with that, I will turn it over to Kirk from SACOG.

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MR. TROST: Thank you. Kirk Trost, chief operating officer with the Sacramento Area Council of Governments.

If we could move to the next slide, maybe.

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MR. TROST: So I think all of this has been talked about, what we see as the next steps. But I did want to take a step back. Chair Nichols, I appreciated

your comment about this being a grand experiment, or an experiment that we started a decade ago. And it's been an adventure. And maybe you could skip to the next slide --

MR. TROST: -- and I'll just wrap up our thoughts about this. When we started this process a decade ago, I think we, as MPOs viewed ourselves in this kind of binary relationship with ARB. We knew a lot about what was going on in our plans, and what we hoped to accomplish through these Sustainable Communities Strategies. And I think we very much viewed the ARB as a regulatory body who would set targets, who would look at our plans, who would look at our -- the methodologies we used in our models. And they would tell us or they would -- they would say -- make a state judgment about whether we were doing the right thing.

And with Professor Sterling -- Dr. Sterling -- Sperling and others, I guess I would reinforce the notion that I -- I can't congratulate the staff enough on what truly is a paradigm shift. We've been at this for a decade. And I think we've learned a lot about the things that we can control, but more importantly the things that we just can't control any more, and the fact that there is this disruptive thing going on in the transportation industry, and in the world that is impacting what we're

trying to do every single day.

And the staff's approach to this to work together on these things that we don't yet understand fully, on these things that we need to understand and positively influence like shared mobility, and automated vehicles, and the next generation of transit and micro-transit, and all these things that are going to happen.

If I can continue?

CHAIR NICHOLS: Please finish up, yes. Go ahead.

MR. TROST: The opportunity to work with your staff -- a decade ago, I don't think your staff, and they would admit this, had the breadth of experience that we had about modeling and understanding the things that we're doing. And today, they come to us with a great deal of expertise and in partnership with us to help address these challenges.

We are really excited about the opportunity to work with them in the days and months and years ahead to meet a shared challenge of reducing GHG and VMT in this State. And we appreciate the dialogue that we've been in with them, and we look forward to it.

I think all of us want to achieve the most ambitious targets possible 18, 19, more if we can do it. But we can't -- we can't do it alone. We need a great deal of help. And in the Sacramento region in particular,

we face unique challenges here, but we think there are unique opportunities here.

The conversations we've been having about pilot projects around understanding the disruptive impacts in the transportation industry to realize there is an important role for modeling. It's -- I know that we want to focus on outcomes, but there is an important amount of work that we need to do around modeling to be able to predict the future to help drive the policies and strategies that we want to pursue, but we need models that are more useful than we have currently been using them, and that isolate the important issues that can be influenced within the Sustainable Communities Strategies that we adopt.

So, in conclusion, we want to thank you. We appreciate the comments of the Board members, we appreciate the work of staff, and we're looking forward to the future and getting to work on this.

So thank you.

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CHAIR NICHOLS: Thank you.

BOARD MEMBER SPERLING: Chair Nichols, I really do have to leave, but I did -- I can't help but say one more thing.

(Laughter.)

CHAIR NICHOLS: Wait a minute.

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(Laughter.)
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             BOARD MEMBER SPERLING: I am running.
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             And I do think -- because the end of this
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    process, I think we do need to think about how is it --
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    how are we going to really operationalize this. And, you
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    know, there's -- we are all going in new territory here.
    And so I think we need to do, in terms of the staff,
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    what's the role of staff and capabilities, how do we
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    partner in -- you know, with my university hat on, I think
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    we need -- there's a good opportunity to bring in
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    universities as well to help out.
             So at the end of this, I hope there is a little
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   discussion about that.
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             Thank you. Bye.
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             (Laughter.)
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             CHAIR NICHOLS: Okay. Is there going to be
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    another farewell address too or --
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             (Laughter.)
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             CHAIR NICHOLS: Bye. Good luck. Go get em.
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             All right. Mr. Chesley.
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             MR. CHESLEY: Thank you, Chair Nichols, members
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    of the Board. My name is Andrew Chesley. I'm the
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    executive director for the San Joaquin Council of
    Governments in Stockton, California. And first off, I
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would like to applaud the 4 largest MPOs in the State of

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California are not just leaders in California, but leaders in the nation in terms of tackling some challenging efforts associated with developing analytical tools that affect and change policies when it comes to looking at greenhouse gas emissions.

And so we have, as the either 14 MPOs of the State of California, we have learned form them and applaud the efforts they've done.

But also, we've been innovative as well. In the San Joaquin Valley, on the MPOs there, we have taken the mission that this Board, that SB 375 has laid before us. We adopted our first Sustainable Communities Strategy regional transportation plan 3 years ago, and have been busily working to implement that. And I think that if you take a look at our urban areas throughout the San Joaquin Valley you can already see some changes occurring as a result of our investment strategies, and some of the policies that we are putting in place in terms of vanpools and our ride-sharing activities. Bus rapid transit routes, we are expanding ours to 7 in the City of Stockton, for instance. And investments in rail passenger service throughout the San Joaquin Valley.

We will continue to innovate along these lines. We are excited about working with our new direction with our partners here at the Air Resources Board, as well as

all of our partners up and down the State of California among the 18 MPOs.

So thank you very much.

CHAIR NICHOLS: Thank you.

Ms. Rudolph.

DR. RUDOLPH: Hi. I'm here on behalf of the Public Health Institute and 23 other State and local public health organizations to support strong efforts to reduce greenhouse gas emissions through ambitious regional GHG targets. California, for decades, has been on the wrong track with planning decisions that have created sprawl, longer driving distances, and fewer opportunities for healthy transportation options.

Communities of color and low-income communities have suffered the most with the lack of transportation options and higher chronic diseases burdens. We're pleased with the progress that's been made under SB 375 over the last 9 years, but much more needs to be done.

To promote improved community health through land use and transportation planning and investments, we have submitted a letter calling for 3 key actions.

One, support the staff proposal for stronger regional targets to keep State and local agencies focused on the need for local actions.

Two, focus on how to make use of new climate

investment funds and existing planning dollars to maximize progress toward SB 375 goals.

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And three, support ongoing health analysis of SB 375 planning efforts to better understand and promote healthier transportation options.

As the analyses you will see in the next agenda items show, more ambitious transit and active transportation scenarios yield significantly greater health benefits due to reductions in obesity, cardiovascular disease, respiratory disease, osteoporosis, diabetes, and mental health problems.

These greater health benefits -- these -- the deaths and illnesses averted by the most ambitious scenarios may equate to billions in health care costs and productivity savings. These benefits, not to mention the health and well-being benefits to families and communities, well justified the investments needed to achieve more ambitious targets.

We believe strengthened relationships between the Board, public health agencies, and community planning and transportation agencies accompanied by more robust and routine health analysis of local and State transportation plans can better inform transportation and land use decision making.

We need to build capacity for local, regional,

and State agencies to more routinely consider health as some local agencies have started to do. We also need the Air Resources Board to invest in the development of tools that allow analyses to drill down to examine the impacts on specific communities and neighborhoods and to assess the health equity impacts of various planning scenarios.

Integrating health and equity into community and State land-use and transportation planning is really critical if we want to ensure that California meets its goals for sustainable, equitable, and healthy California.

Thank you very much for the opportunity to comment.

CHAIR NICHOLS: Thank you. It's good to see you. Ms. Reynoso.

MR. REYNOSO: Okay. My name is Ana Reynoso. And I am here on behalf of over 5,000 members of Environmental Health Coalition in San Diego. EHC is a 37-year old environmental justice organization. EHC strongly urges the California Air Resources Board to require an emission reduction target of 25 percent for the San Diego Association of Governments.

The system SANDAG has built is expensive, car-centric, increases toxic pollution, and contributes to climate change. A lower emission reduction target would only keep the system in place. Low income communities of

color suffer the most from SANDAG's focus on freeway expansion.

Communities like Barrio Logan and West National
City suffer from many sources of pollution, including the
impacts from freeways. As a result, they rank in the top
10 percent of the most impacted communities in California.

San Diego is the 8th largest city in the country. Yet, its transportation system lags behind cities with much smaller populations. As a result, the average resident in San Diego can only reach 29 percent of jobs within 90 minutes on public transit.

On top of that, SANDAG also has a long history of misleading San Diego residents. In November of 2014, the California Court of Appeal held that SANDAG violated CEQA by approving a defective EIR in connection with its 2011 regional transportation plan. And this past summer, Voice of San Diego exposed SANDAG for wrongly projecting revenue from tax measures during the last election cycle.

It is a fact, SANDAG is not accountable to the people of San Diego. Therefore, relying primarily on their analysis for emission reduction can have grave consequences for San Diego's residents. SANDAG's proposed 18 percent emission reduction target absolves them of any real changes.

Even CARB staff's proposal for an 18 -- for a 19

percent emission reduction target won't improve existing conditions.

Based on CARB's own analysis through the scoping plan, only a 25 percent target for transportation emissions will meet the 2030 goals. The solution is a stronger focus on VMT reduction and changes in our mode share, which would subsequently make a 25 percent emission reduction target possible. The passage of AB 805, or SANDAG Reform, clearly demonstrated at this point, we need stronger support an enforcement from CARB.

It is evidence that our transportation system is not only inadequate but also routinely hurts the most disadvantaged families in San Diego. A 25 percent emission reduction target would truly meet the intended purpose of SB 375. Thank you for your attention to our request.

CHAIR NICHOLS: Thank you.

MR. WORTHLEY: Good morning. My name is James Worthley. I'm with the San Luis Obispo Council of Governments. We want to express our appreciation of working with your staff and the opportunity to speak here today on our targets. We support the goals of 375, embrace the benefits it brings to our residents, and our region, and the new focus Dr. Sperling mentioned paradigm shift to focus on what can be accomplished.

One approach we use to reduce VMT and GHGs is through smart transportation investments. They're critical to change the existing travel patterns and choices of our current population, homes, workers, shoppers, and tourists. That change isn't easy, especially when you consider that -- the rural nature of our county, its beaches, trails, wine country, small towns attracts tourists from all over California, as well as the nation.

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And we have no chance of seeing a BART or a subway system, or a light rail system, or high-speed rail in San Luis Obispo County. The local and regional bus services are limited by funding. They're challenged to serve all of our communities and commuters that are spread along 70 miles. And none of our transit systems can come close to what the State has defined as high quality transit service, as they do not even offer 30-minute headways today.

The second approach we use to reduce greenhouse gas and VMT is developing aggressive scenarios that plan for new growth in locations that are better suited to the goals of 375. But we note that scenarios that have more growth are better able to reduce the existing VMT and GHGs.

To let you in on a secret, our 2015 plan had 25

years of new growth to spread 45,000 new people. That's a 17 percent increase over base. The plan we're working on now, adopting in a year and a half from now, has 20 years of new growth, 20,000 new people to spread, and that's a 7 percent increase of the base.

Four years ago we developed our aggressive and achievable scenario using the best available data. We don't want to use outdated data. We keep improving our planned by improving the date and the base underlying scenarios.

Our timing was not well aligned with that of the target-setting process. But now, we do have most of the necessary pieces that we can develop a preliminary reduction target that would better inform staff instead of the 11 percent that sits -- as it sits now. That 11 percent reduction target is closer to what the Bay Area achieved in its last plan than the average of the four other small MPOs that are more comparable to San Luis Obispo County.

I'm often asked how can you put this in terms of what the public and our Board members can understand? And VMT is a much more understandable topic. If you look at an 11 percent per capita reduction to VMT in our area, that would mean none of the newly added population between 2015 and 2035 could drive at all.

And there's a 6 percent reduction for existing people. At 6 percent reduction, no new residents can drive unless it's offset by reductions across the Board. At a 4 percent -- if I may continue?

CHAIR NICHOLS: Please just finish up, if you wood.

MR. WORTHLEY: At a 4 percent reduction, newly added residents can drive less than 4 miles per day each. That seems aggressive. No driving at all seems more -- more like asking the impossible.

Using per capita reductions results put slow growth, no growth, rural and tourist attraction counties at a disadvantage, as that new growth increment cannot significantly offset the existing VMT that results from existing jobs and homes. The new paradigm shift sounds like it will account for that.

For 2020, we did do model results and we found a near zero change. To hit a 2 percent target is going to be aggressive, and we're going to need to pull every tool out of the tool box, and we're going to be needing to work with your staff to get even close to it, I believe.

For 2035, again, our alignment with the target-setting process wasn't ready. Here we are, the precipice, I think, in the next 2 months, we can provide your staff with a preliminary target that we can identify

as aggressive and achievable without something that's so overly burdened like the 11 percent as it sits now.

Thank you.

CHAIR NICHOLS: Thank you.

Mr. Magavern.

MR. MAGAVERN: Good morning. Bill Magavern with the Coalition for Clean Air. Transportation is not only the largest source of greenhouse gas emissions in California, it's also growing. And that is primarily due to the increase in vehicle miles traveled. We're making slow progress on engines, we're making even slower progress on fuels, and we're not making progress on vehicle miles traveled. So that's a big challenge, because we need to. We need to address all three of those factors.

We agree that it makes sense to focus on the actual land use and transportation strategies. That's what this law is supposed to address, rather than having the models that bring in other factors and really don't move us forward on land use and transportation. I'm not completely clear, at this point, on how those land use and transportation measures are going to be measured to get us to the targets that we need to.

And so I want to point out, we also need to have higher targets in order to get to the 25 percent reduction

that the scoping plan calls for by 2030.

We have a problem in that regional transportation plans, many of them, continue to fund capacity increasing road and highway projects, instead of more sustainable transportation. What we should be doing is offering choices, so that people can get around through transit, through biking, through walking, not just through going everywhere with a ton or 2 tons of metal accompanying them.

I also want to point, I don't think anybody has addressed this so far today, is there is a potential unintended consequence of some housing infill projects. And we completely support infill when it's in healthy places. But when we put housing right adjacent to freeways, we're actually jeopardizing the health of the people who are going to live in that housing, because we know that the exhaust from freeways continues to be toxic.

So smart land-use planning includes guidance from this agency to make sure that we're not spending State money to put people into unhealthy housing.

Thank you.

CHAIR NICHOLS: Thank you.

MS. AMES: Good morning, Honorable members of THE Board. My name is Chloe Ames and I speak on behalf of Climate Resolve, a non-profit organization focused on

advancing climate solutions in the SCAG region.

I want to start by commending the ARB Staff on their excellent analysis for the scoping plan update. It is a tremendously important exercise to map out how our State can make good on its greenhouse gas reduction goals. And these targets -- and is making us a leader on the world stage.

The area of which progressive action is most lacking though is on achieving SB 375 targets, targets which are ambitious enough to align with our scoping plan needs assessment, and which we strongly believe the SCAG region is capable of achieving.

We want to highlight two areas in which we believe SCAG's stress test could yield greater greenhouse gas reductions. First, SCAG's latest SCS and stress test only concentrate 50 percent of growth in transit priority areas. We can and must do better than that. If we don't, if we continue down our current trajectory, urban housing prices will continue to rise. We'll be forcing out our core transit riders into the fringes of the city forcing them to drive until they are no longer able to afford living in the city.

Opportunity gaps will continue to rise, all for the sake of maintaining outdated 20th century sprawl development patterns.

Second, we can curb the expansion of road capacity. Are you familiar with the proposed high desert freeway? Well, it's also in SCAG's latest SCS, but we argue it doesn't belong there. It's a new 63-mile 8-lane freeway with offramps of every 2 miles into under -- undeveloped Joshua Tree country land. It's a freeway that's not designed to relieve congestion, but rather induce sprawl and correspondingly further automobile dependence.

The VMT that it will add to our region cancels out over half of the VMT reductions that L.A. County

Measure M is set to achieve. Without higher SB 375

targets, this kind of project will continue to appear in our SCS. Rather than continuing further down a path of automobile dependence, we must course correct, and we must do so now.

With new revenues from SB 1 and local/State tax measures, we've got an opportunity to make sure our investments are helping us with our State goals rather than impeding them. For that to happen though, we need SB 375 targets that are high enough to get us to where we need to go. We can't afford to stay on this current trajectory, especially when it entails widespread displacement and new sprawl-inducing freeways.

I want to encourage you to not lose site of the

25 percent reduction target that has been identified in the scoping plan, and with a sense of urgency, commit to a process that leaves no unaccounted for gaps, but rather puts our region on a path towards achieving what's needed

By setting ambitious targets, we are more likely to achieve greater success. Where there is a will, there is a way.

Thank you.

CHAIR NICHOLS: Thank you. Mr. Lyon.

MR. LYON: Good morning, Madam Chair and members. Richard Lyon here on behalf of the California Building Industry Association. Our members produce the vast majority of the housing in California, both fore sale and rental in urban areas, and suburban areas, and other locals as well.

And through our efforts, the home building efforts, as an architect of SB 375, the working with the Regional Target Advisory Committee, and over the last 8 years our members, locally and regionally working through the SCS process, we have, I think, identified ourselves as sincere and authentic partners in the effort to reduce emissions and achieve the targets.

I would say this that as the stakes get higher and the low hanging fruit is picked, and then the need for balancing economic considerations, and housing costs and

housing supply issues becomes every more paramount, California is ground zero for high housing costs and very low supply. And the imbalance contributes directly to high levels of homelessness, to poverty rates, and to the fact that for most middle income Californians, they are simply not able to be able to afford the -- a new home in California.

The average median price of an existing home in California is over \$500,000. And if you're talking about a new home in regions, you probably have to add at least another 100 to 120 thousand dollars on top of that. So you can see that the problem we're having in California in terms of housing supply and housing cost is a real one. And the regulatory environment, although it's not the main cause of it, certainly does play a significant role.

So we're concerned that absent meaningful broad-based regulatory and fiscal reforms, the very policy tools, if you will, that need to be there in order to achieve this new direction that we're talking about, that the commitment of the State to a true partnership is lacking at this point.

We stand ready to work with you on that, but we need to have the policy tools, the pricing, the financing, the regulatory reform tools to be able to get the housing in the places that -- that 375, and the scoping plan

envisioned, to be able to get the kind of transportation reductions that the plan envisions. The tools are simply not there right now.

We've known this for quite some time. This has been an ongoing problem. And we really appreciate the opportunity to have this informational hearing. We look forward to working with your staff going forward. It is important that we not push the point where ambition is eclipsing what's feasible and what is achievable. So having those policy reforms is absolutely essential, and we look forward to CARB being a partner with us in encouraging the legislature to adopt those reforms.

Thank you.

CHAIR NICHOLS: Thank you.

MS. VANDERWARKER: Good morning. My name is Amy Vanderwarker with the California Environmental Justice Alliance. On behalf of CEJA we also align our comments today with those of our colleagues from Environmental Health Coalition, as well as Coalition for Clean Air.

As you all know, transportation is not only the largest source of greenhouse gas emissions in California, it's also a major contributor to health and quality of life -- negative health and quality of life issues in environmental justice communities across the State.

The scoping plan clearly outlines a need to cut

transportation emissions to 25 percent to meet our 2030 climate targets. To set anything less aggressive in the SB 375 this process would both undermined our ability to meet our 2030 targets, as well as negatively impact the health of environmental justice communities.

So as you consider SB 375 targets moving forward, we urge the Air Resources Board to set strong aggressive SB 375 targets that put us on a path to meet our 2030 goals, as well as protect the health of environmental justice communities across the State.

Thank you.

MS. HOLMES-GEN: Good morning, Chair Nichols, members. Bonnie Holmes-Gen with the American Lunch Association in California.

The Lung Association has been a key partner with the State Board and regional agencies over the 9 years of implementation of the SB 375 program. And we do believe this program is a transformative health and climate program, has changed local planning strategies and we have a lot of success to build on.

But clearly, we have a long way to go, given the need to achieve the 25 percent GHG reduction from the land use sector and 7.5 percent VMT reduction. These are important and strong targets we need to meet.

We supported this earlier staff recommendation,

including the 21 percent for large MPOs, because we believe that they are fair targets and will propel the strongest State and local action forward to achieve our State's climate goals and improve health. Much is at stake. We don't have time to lose in our climate efforts. We believe that this is a package effort. We need higher targets together with strong State and local partnerships, strong VMT reduction strategies, more active transportation, and focused investment programs.

All of these pieces are needed to bring co-benefits cleaner air, increased physical activity, and public health gains. Including reductions in chronic illness.

As Dr. Rudolph testified, research shows a tremendous drop in early death, cardiovascular activity, and -- excuse me, cardiovascular disease and asthma attacks in GHG emissions from even modest increases in physical activity.

Implementation of stronger targets is supported by new State funding programs that can help advance sustainable transportation modes. You've had a great presentation today about all the different funding pots that can help build more compact, efficient, and sustainable communities, so we wanted to add 3 recommendations to the mix.

Considering these new funding pots, one is to direct more staff time and resources to tracking the various State financial resources and incentives available to support integrated land use and transportation planning measures and achieving that 25 percent reduction, and to determining how to work with the regional agencies to best leverage these resources to further 375 implementation efforts and provide guidance two, to establish a CARB-led State agency working group to identify additional State strategies to reach that 25 percent; and finally, to build more focus on active transportation, whether it could be a new target for active transportation that would be built into the local Sustainable Communities Strategies, or maybe as part of the SB 50 -- 1 -- as part of the SB 150 analysis, the staff could work with each region to develop metrics for what can further be done to boost active transportation with more State and regional coordination. There's a lot more that can be done here.

Through all of these efforts, we believe that we can achieve the higher SB 375 targets and tremendous public health benefits.

Thank you.

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MS. CEVALLOS(through interpreter): Hi. My name is Llesenia Cevallos. I leave in National City, San Diego County. My house is less than 600 feet away from Highway

Interstate 5, one of the busiest highways in California. I am also a promoter of the EHC.

I'm here to request the Board to give priority to these communities impacted by toxic emissions. This can only be accomplished if the Board demands SANDAG a reduction of emissions by 25 percent.

In National City, the emissions, because of the winter effect, are very high. Also, we have more and more trucks passing through our community. I am worried that my 3 children have to breathe toxic emissions day by day.

In fact, at home, I have a lemon tree and it's full of a black sticky substance. I thought it was just a pest, but no, it is pollution. If you check the documents I presented to you, you have a picture and a tree sample, a leaf, so you can see what we breathe every day. It is not just my tree, but it's the trees around may neighborhood. If the trees have this sticky black substance, can you imagine what's happening inside my children's lungs?

The Board needs to demand an emissions reduction by 25 percent, and also needs to come out with a plan to make sure there is a reduction of miles traveled by these trucks. The Board needs to make sure that SANDAG abides the law, so they can decrease this contamination and emissions.

We need an effective solution to develop an efficient public transportation system, and also it has to be low cost.

I request your support, so SANDAG takes in consideration my community and my family's health. My children's lung health is in your hands.

Thank you for your time.

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CHAIR NICHOLS: Thank you.

Our final speaker is Phoebe Seaton.

MS. SEATON: Thanks so much. Good morning.

Phoebe Seaton, Leadership Counsel for Justice and

Accountability. We align our comments with EHC, CEJA,

Coalition for Clean Air, also Dr. Rudolph, in terms of the relationship between the SCSs, RTPs, 375 implementation,

15 public health, environmental justice inequity. I think

16 that the speakers, especially EHC, highlighted the

importance of urgent and ambitious action on targets, on

regional transportation plans, et cetera. And I think

we echo all of them in asking for targets that will allow

us to achieve the goals set out in the scoping plan, more

ambitious than we are seeing and have seen.

We think that there's no opportunity like now to achieve those higher targets. We now do have some funding that can facilitate some smarter investments, better investments, more equitable investments. And we also

would really like to see CARB require greater transparency among the MPOs. We have -- we've spent -- most of our work is in the Coachella Valley, Riverside County, and SCAG, as well as the San Joaquin Valley.

It's spending a lot of time trying to decipher, discern, and understand the data behind the scenarios, the transportation plans, and the prioritization. And if we have, and we and our colleagues and CARB, has greater access and understanding to the assumptions underlying these decisions, we think we can help the MPOs kind of move along, become more ambitious, and allocate some of those fundings to better investments that will both reduce vehicle miles traveled and improve public health, community health, and address some of the critical transportation and transit needs that we're seeing in communities throughout the State.

Thanks so much.

CHAIR NICHOLS: Thank you. There's no record to be closed here, because there's no formal action to be taken. This was an information item, but I think some Board members may wish to make additional comments. I just would like to start out by emphasizing that this shift in thinking, shift in emphasis and focus in our implementation of SB 375 is just that. It's not self-implementing. It's going to require action.

And we know from long experience that changes in land use and transportation are slow and difficult to move in the direction of being more environmentally benign.

And we've heard certainly today that there's a great need for progress here. I personally would be extremely upset if I thought that the fact that we are not taking action on targets today was read as meaning anything less than a full commitment to the 25 percent reduction that is called for in the scoping plan. And I would not like to have any implication that somehow we were backing away from that.

I think where we are represents a recognition that the approach we were taking to setting targets wasn't working as well as we had all hoped it would when we first started, and that it was going to be more productive to focus on getting measures adopted and measuring results from those measures.

But we don't have a lot of time to spend thinking about that or patting ourselves on the back for our good ideas. We have work to do. And I guess I'd like to hear either Mr. Corey or Mr. Karperos give us an update on the this process that we will be proceeding on.

DEPUTY EXECUTIVE OFFICER KARPEROS: Thank you,
Chair Nichols. You're absolutely right. As we began to
look at this process, we came to the conclusion that as we
were focusing on the output of the model, which actually

is an input to a planning process, it became the metric of success. Rather than a tool for building a rational and sustainable plan, it became the measure of success. And we -- over time, we're losing our focus on the strategies themselves. So the process that we need to follow going forward and is multi-faceted in order to identify how we want to construct sort of this new paradigm.

So there's multiple pieces. First, the issue, and Dr. Sperling alluded to it, and Mr. Trost from SACOG also alluded to it, we have in front of us, and we want to be able to incorporate in our 375 thinking the potential for the disruptive impact of connected and autonomous vehicles, and what that might be on VMT. So there are some schools of thought that it means there could be a ballooning of VMT over time. There are other schools of thought that it could be, in fact, a mechanism for reduction of VMT.

That's not well understood. So step 1, in terms of figuring this out, is to sit down primarily I think with the academics and the MPOs to start to game out how -- what are the types of policies that we think would be appropriate for addressing this over time.

So that's number one. That's a longer term effort that we're going to have to go through. More short-term is identifying a framework for daylighting, as

we've been talking about, the impact of the strategies themselves, the transportation and land-use strategies themselves, which are embedded in the SCSs, and daylighting them in a way -- sort of in keeping with the last commenter, to allow the public to understand, and quite frankly ourselves, and the MPOs to understand what are really moving -- really moving the dial in terms of changing the transportation patterns within the regions.

That's something that we think we can work out over the next just -- at least in terms of a general sense we can work out in the next couple of months, and bring to you a more specific framework when we have -- in the March timeframe.

The next piece is understanding how we fill this gap between a 375 target of -- as we're looking at now '19, and the 25 percent that was alluded to multiple times in the testimony and as in the scoping plan. We already have in place -- it's being led by ARB staff a discussion among State agencies about what the State level policies are that contribute to closing that gap. We need to expand that group to now bring in the MPOs and other stakeholders. And in the presentation, we talked about next steps, and one of those was a roundtable discussion. And that we would look to kick off -- a public roundtable discussion we'd look to kick off the first part of next

year.

Modeling. We still, under 375, believe that you need a numerical target as a focus of the planning, not modeling -- again, as I was saying at the outset, not modeling as the measure of success, but as a tool for identifying how far you need in -- need to push your SCSs in terms of the strategies.

We've been talking particularly with SACOG about methods to use -- the current models to do that sort of thing, and isolate the benefits of the land use and transportation strategies using that tool, and that's something we think we can work through with them over the next year.

I also want to point to one last thing. It was mentioned several times about the public -- the health impacts of active transportation reduced VMT, if it results in active transportation. We have -- we are going to initiate a public review process of something called the ITHIM model, which is an analytical tool for capturing the public health impacts of a shift from driving to active transportation. And that we think will allow us -- can be an input tool to the MPO discussions and modeling where you can actually start to see what are the potential health benefits of different strategies. But also quite frankly a tool for convincing people of what the benefits

are of getting out of your car, moving to -- you know, living in a more sustainable community as well.

So essentially a tool to convince people that it's not just about you have to walk everywhere, that you -- that there are true public health, and then as a result, monetary benefits from this sort of change.

BOARD MEMBER BALMES: Chair Nichols --

CHAIR NICHOLS: Thank you. Yes, go ahead.

BOARD MEMBER BALMES: -- could I just --

CHAIR NICHOLS: Um-hmm.

BOARD MEMBER BALMES: -- add on to that?

I've been engaged with -- in conversations with Mr. Karperos and Ms. Chang about this very item, which I -- this issue of trying to make active transportation, the health benefits be a part of the SB 375 Sustainable Communities Strategies planning. You know, I note that both in SB 1 there's a lot of money for active transport, and then the MPOs -- the large MPOs, you know, talked about -- they tested at additional bike pediatrician -- pediatrician --

(Laughter.)

BOARD MEMBER BALMES: -- pedestrian infrastructure. And, you know, I'm not sure how much greenhouse gas reduction benefits they found in their stress test. But as Mr. Karperos just said, and as Dr.

Rudolph mentioned and maybe -- and Ms. Holmes-Gen, there are public health benefits from this that go beyond the greenhouse gas reduction.

So I think that's very important for us to consider. And, you know, given that there's money in State pots for active commuting infrastructure, I think we should direct -- we should be taking advantage of that in our new paradigm shift approach to the sustainable communities strategies. So I just wanted to say that I'm working with staff on this. I very much support what several of the witnesses have said in this regard.

And ITHIM is one model that can be used to actually quantify health benefits from active transport. You know, there are others and people can argue about models, but -- I'm working with staff on trying to get ITHIM into our planning. And actually the California Department of Public Health is very much supportive of that as well. So I like that partnership as well.

CHAIR NICHOLS: Great. Thank you.

Comments, yes, Supervisor.

BOARD MEMBER SERNA: Thank you, Chair Nichols.

One of the things that I brought up in my briefing discussion with staff on this subject was - this is my opinion - that at some point maybe in the not too distant future in terms of whether it's modeling or just

the broader discussion about what are the appropriate analogs or surrogates that we use to gauge greenhouse gas reduction, it seems to me that at some point there's going to be a tipping associated with the increased market share for zero emission vehicles.

We've heard a number of comments today about the effect of the disruption, if you will, that autonomous vehicles may have on the ability to continue to shoot for appropriate targets here. But I think, in addition to that, there's going to be a need, at some point, to acknowledge how hopefully the increasing market share for ZEVs is actually going to have the benefit -- the beneficial effect that we all want relative to the intent of the legislation.

Right now, the principal surrogate is vehicle miles traveled. But obviously, that does not come into play when you're -- when you have an expansion of the market share for vehicles that don't have any greenhouse gas emissions associated with them.

DEPUTY EXECUTIVE OFFICER KARPEROS: Supervisor Serna, as we move forward, certainly the penetration of zero-emission vehicles is going to be critical in terms of meeting our greenhouse gas targets, as we have modeled and sort of the foundation of the 25 percent number that you've been hearing through the course of this morning.

Still, as we look further out as far as 2050, we are still, because there would be a very optimistic penetration scenarios, a lot of traditional internal combustion engines on the road, we still need to be focusing on mechanisms to reduce activity.

A critical point, and this connects to your point about connected and autonomous vehicles, we want those to be zero-emission vehicles. So what are the policies to leverage that as they penetrate, because they're -- in a sense, that's the two-fer. If you have multiple people in that vehicle and that vehicle is not deadheading, and it is an electric vehicle, that's as close as you're going to get to a perfect scenario.

CHAIR NICHOLS: Right.

Ms. Mitchell.

BOARD MEMBER SERNA: Great. Thank you.

BOARD MEMBER MITCHELL: Thank you, Madam Chair.

I agree wholeheartedly with the position and direction we're going here, shifting from modeling, to some degree, to focus on the strategies. This is hard. We all know how hard this is, because it requires a lot of collaboration among agencies. And it requires collaboration with local government. The land-use element of the SB 375 program is critical here. And I think to some degree, it's kind of ignored. It's the combination

of land use and transportation and housing.

And at the -- in the SCAG region, we've been focusing a lot on housing also, because there is an incredible need for more housing and for affordable housing. And Dr. Sperling mentioned that yesterday he and I participated in a program put on by the South Bay Council of Governments.

And what was interesting about that was not only that it's very innovative, but they have relied on academics to help with their strategies. And I think to have academics brought in on this program is critical.

Some of the people we need to hear from are academics and urban planning, architectures -- architects of urban design, and we need to look at, as I said more closely, how the land-use element can play into where we put housing, and what vehicles we use in the course of that direction.

Autonomous vehicles, electric vehicles, we are in transformative change right now with what is happening in our economy, especially here in California.

And with autonomous vehicles, I think we want them to be electric, but we probably also want them to be vehicles that are used for sharing. One thing that is a bit scary is that we have a lot of autonomous vehicles running around with nobody in them.

And even if they're electric, even with our electric vehicle program, we still face road congestion. I mean, that is a huge problem, and that goes to what the quality of life that we have. So, you know, that's a different -- bit of a different problem, but it exists as we think about how we deal with this.

I think there's great value in the MPOs working together, because I'm not convinced that we've identified all the strategies that we could be employing to reach our targets. And if the MPOs work together, they can share some of those strategies.

The other thing that is the corollary of that is that we know one size doesn't fit all. So we have to look at communities and areas individually. And that goes all the way down to local governments, where they are -- whether you're in the urban center, whether you're in a suburb.

The other thing I would mention with this shift, I would recommend that as we embark on this path, that we ask our MPOs to report to us more regularly than every four years. I would ask that we get a report back from them annually. Let's see whether the strategies that they're putting in are actually working. And also, that will, I think, you know, enhance collaboration between the ARB and the MPOs, and also among the MPOs as well.

So these are my comments. And I thank staff for working on this, and working on it in a collaborative way with our MPOs. I think it's absolutely essential that we -- that we do this together.

Thank you.

CHAIR NICHOLS: Thanks. Ms. Takvorian.

BOARD MEMBER TAKVORIAN: Thank you. Thank you very much.

Ms. Mitchell just said a number of the things that I want to say, so I won't repeat those. But just to emphasize congestion, quality of life, more reporting, I agree with all of that. I also agree with the paradigm shift. I think it's a good one, good to shift from modeling towards performance. I think where I have questions and where I might part company a little bit is on what the actual and required changes are that would be required now, and not just for the future.

We've had SB 375 for 7 years. We have a performance record, and we should look at it. We should look on what efforts the jurisdictions have made, and which ones they are saying they'll make, but we shouldn't ignore the past. This is not square one. So in thinking about that, I think we've heard, and what I think we have to consider, is that all MPOs are not created equal. It's great that the MPOs are collaborating. I agree that they

can learn a lot from each other. But the impacts can be quite local, as we've heard expressed in communities, and especially in environmental justice communities.

And so the targets really need to be based on regional performance. We recently got a report, which I think we didn't talk about, maybe SANDAG didn't report to us today, is that VMT has actually increased. This report came out a week ago, two weeks ago. VMT has actually increased in 2 -- in 2016 by 1.3 billion more vehicle miles traveled.

We need to look at that. We need to look at why it's increasing versus decreasing, which is what the project is. So that tells us that modeling isn't always going to be reliable, but we now have actual data. So how do we use it, and how do we use it going forward.

And I think as was stated, San Diego is the 8th largest city in the country, and we're 33rd in terms of U.S. cities with populations of more than 65,000 for trips per resident. So those are metrics, those are metrics that ought to be looked at, and they ought to be looked at now as we determine what the goals are both the VMT goals as well as the greenhouse gas reduction goals.

I also wanted to lift up something that I think was in one of the letters that we received. I think the increased transparency around regional transportation

funding, how it's planned to be spent, and how it has been spent are critically important. We need to look at how the agencies are allocating their funds, and if they are allocating them towards Sustainable Communities Strategies, in fact, not just towards expansion of freeways, so -- and that would give us an opportunity in the upcoming SCSs to allow them to reprioritize those. And I think CARB can collaborate and help to be a little bit of a push in that regard.

And I think as you've heard and seen with the evidence that we received here, that environmental justice communities can't wait. There's more asthma, there's more respiratory disease. I really don't want to see us adopting weak targets, and then asking for metrics and reporting, so that in 8 years we can say, oh, gee, that didn't work either. And I know that's not what anyone's intention is.

So we really -- we have 3 times the rate of children's asthma in our communities, and those lungs can't wait. So I hope that we can take this paradigm shift and really push it forward to be more aggressive, and really to have better outcomes for our communities. So thanks so much.

CHAIR NICHOLS: Thank you.

Mr. Gioia.

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BOARD MEMBER GIOIA: Thanks. I won't repeat what others have said. But let me just make a couple of observations. As someone who was part of the development of the first SCS in the Bay Area with Plan Bay Area, I -- it takes a lot of political will. And I think -- I appreciate that while we have had representatives from each of the metropolitan planning organizations here all expressing support, I don't think we should fool ourselves that there's different levels of political will in each of those MPOs.

And that there are some regions of the State that are working more aggressively to develop realistic programs or policies to meet the targets and others in which that political will is not as strong. So I think we shouldn't fool ourselves.

So I think it's also -- I mean, I think we want all achieving A plan that's workable and doable in each region, but all clearly striving for the most aggressive targets. So we've gotten a lot of comments about some common points.

So I wanted to ask our staff it would be good to understand how we can hold each of the regions to, one, ensuring that they're having the most robust health analysis in their plans, because some are better than others, right?

So -- that we actually are setting a standard for ensuring that all the plans that we approve have a robust health analysis. Second, that all of them address the issue of displacement with anti-displacement policies. That was a big issue in the Bay Area, as I know it is in other regions of the State.

And third, that each of the regions use the funding that they can to incentivize reaching the goals, right? That -- there seems to be a different level of commitment on how -- how funding can be used as an incentive. So aligning funding as an incentive, more funding -- the more funding the better to achieve the goals, robust health analysis, anti-displacement policies.

And then the last point I'll add, and this is sort of different and new, yesterday, I participated -- there was a county -- statewide group of folks from counties and organizations in a gathering put together by the Governor's Office of Planning and Research to look at how counties -- how we can have more county level planning on land use where to site commercial solar for energy development.

And what came out of that was, you know, that there needs to be greater incentive and help to get cities and counties together. So if there's someway that that can also -- it's a land-use issue, get it at least

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addressed or discussed as part of the SCS, that if we're going to really have broader commercial solar development, there are obstacles on -- land-use obstacles, permitting obstacles. And, I mean, Ken Alex was there and it was something that he was part of.
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So I think it's really important to look at how the SCS can at least be a venue for cities and counties to address land-use permitting for large scale commercial solar.

CHAIR NICHOLS: Okay. Any other Board members?

Yes, Supervisor Roberts, and then on. You did

not have your hand up or did you?

You did. I'm sorry. Well, raise it higher then.
You go first. You get to go first. Yes, we'll go in order.

BOARD MEMBER SHERRIFFS: Thank you.

CHAIR NICHOLS: There's a reason for this seating chart here.

BOARD MEMBER SHERRIFFS: Can you hear me over my cold?

CHAIR NICHOLS: Yes.

BOARD MEMBER SHERRIFFS: Okay. I would just observe, I know why I've increased my vehicle miles traveled.

BOARD MEMBER BALMES: Coming to these meetings.

BOARD MEMBER SHERRIFFS: They're called grandchildren.

(Laughter.)

BOARD MEMBER SHERRIFFS: So that's certainly part of it. A question in terms of, we haven't talked very much about sticks. Although, in a sense, and I'm glad San Diego is coming after me, because we've seen one stick, which is I'll say shaming or transparency, but it raises the issue of, well, what can we do to encourage greater performance? Because 19 percent seems pretty doable. And I think it is important that we be aspirational.

And one of my questions is, well, if we -- if we set the bar a little higher and people don't make it, should they be punished?

Or looking at it another way, well, what are the carrots for exceeding, not just hitting that 19 percent bar, but actually exceeding it. I wouldn't want to set up a system where no good deed goes unpunished, and it means you just got some lower hanging fruit, so you can't get it in the next round.

But seriously, what carrots do we have to help encourage not just making it, but even exceeding it?

CHAIR NICHOLS: Do you want to answer the question if you have a comment?

DEPUTY EXECUTIVE OFFICER KARPEROS: One of the

things that we do want to accomplish with the shift towards focusing on the land use and transportation strategies themselves and tracking, that has been -- and reporting that has been talked about, is, one, enable sort of the -- help enable the transfer of one strategy from one area to another where it's applicable, and in the form of which it's applicable, so number one, in terms of bringing sort of everybody up together.

Number two, we believe that daylighting itself will allow and help support the MPOs in moving forward and convincing their locals of the benefits of these strategies. And then three, when we were very focused on the modeling, it became the performance of the MPO's model became the metric we were looking at.

And has been said, what we're looking at is local strategies, regional strategies, and statewide strategies. So this effort where we're looking at what are the -- what are the actions -- as Dr. Sperling talked about, what are the actions that are really getting the reductions at any of those levels, I think, provides opportunities for local and regionals to then advocate for various pots of funds to be rewarded for their actions.

CHAIR NICHOLS: Supervisor Roberts.

BOARD MEMBER ROBERTS: Thank you, Madam

Chairwoman. I feel like the Grinch who stole Christmas

the comments I'm going to make.

I wish that staff would plot out vehicle miles traveled how it's increased, and then plot on that same chart air quality. There's been an inverse relationship between the two, not a positive relationship.

I think it's one of the worst metrics. I said that when I was first here in 1995. It's a pathetic metric for anything. It's a political metric. It's not a performance metric. As we increasingly electrify vehicles, cars, and trucks, and buses, and everything else, you'll see that clearly. And I think you'll still -- I think you'll see it today. We've seen it in San Diego County the relationship is an inverse one.

And there's a lot of reasons for that. And this Air Board has been a strong part of that, and I'm very proud that that's the case. But I think it's something that we need to have a better understanding. And when you're measuring the wrong thing, it seems to me your chances of success are far more limited. So I've registered that concern in the past. A lot of people keep hanging their hat on it.

Most people are motivated by a whole series of things. We're trying to -- we're struggling even -- none of us know what the disruption that's going to be caused by autonomous vehicles is. And some of us have been

studying this to death. I'm very interested in what's the disruption that's caused to public transit in that. And it may be that it will help public transit, because our major expense in public transit is drivers.

So what happens when you don't -- when you can cut significantly the costs of your operation?

I think it behooves public transit, instead of having big systems, I think in the future, it may be that we're going to be turning to smaller buses that will pick people up in a convenient way and deliver them exactly to where they want to go, rather than having to have active transportation of a mile or two to get to a collection point.

It may be the private sector, if the public sector doesn't act, will develop those systems. But I see those as coming definitely. And I'm hopeful that we start experimenting with that in a significant way as part -- part of public transit.

And these things are going to have an impact.

And it's a question -- and each region is going to be different. And I think what you're allowing now is some innovation appropriate to each region. One size does not fit all. San Diego County is 4,200 square miles. We've got a lot of areas. You know, when we have our life-line systems on public transit, we probably are about \$15 to

\$20 per passenger per ride subsidy, not a very effective system, and we've got to think of ways to do this.

But along with this and what -- we may get an increase in cars. We've got a lot of our -- our fastest growing demographic is seniors, that many of whom are not going to be able to drive. And what's going to help them get around is going to be those autonomous vehicles.

And instead of looking at it as a negative, we should be looking at as a positive. And yes, we may get an increase. But if we get an increase in the number of people per vehicle, and the distance between vehicles on freeways and things like that, the overall effect may be -- and the electrification of those vehicles. All of a sudden it's a whole different picture in terms of what we're looking at here and what I'm hearing described by so many.

I don't think San Diego is different from a lot of places. Probably the biggest crisis we have right now is housing. We're falling about 20,000 units a year short on what we should have. It's exacerbating every other problem that we have. I don't know what -- you know, it's so difficult for -- especially for young people what do you do? It's not just can I buy a house. It's the rents that are being -- that are going up.

And they're -- those rents aren't -- they're an

adverse ratio to vehicle miles traveled too, if you want to look at those. And we've got -- but for us to sort of -- and look at part of the issue, and to start establishing policies that may not -- that may work at adversely to other things we're trying to do, it just doesn't make sense.

You'd have to acknowledge that the MPOs -- these are not neighborhoods, these are covering cities. And while you may have pockets, and you're dealing with those pockets as part of your disadvantaged communities, and everything else, to come up with a requirement for the whole MPO based on what happens in a particular part of the community, that's not going to work. It's not based on reality. And I -- I'm -- I'm really appreciative of the work that the staff is doing in working out and understanding -- understanding the models.

And understand, there's going to have to be -there's a gap within those. I mean, 18 percent is not
assured. There's a lot of work and there's going to have
to be policies that are going to be developed. I thought
that the -- what I just heard was probably the outstanding
point of the day, create incentives for makings goals,
okay? Put in milestones along the way. And if you make
that, guess what, we'll help you.

You want a fleet of electric buses, we'll help

you get there. Okay. These are the things that I think are positive. There's this attitude in planning that it must not be a good rule if it doesn't cause pain for somebody.

My God, we're causing way too much pain. And what we need to do is find a way that we allow people choices, that we allow economies to function, and at the same time as we're creating opportunities for people, be concerned with the overall health impacts.

And I would guarantee, if you graph some of these things, you're going to see a different scenario than is sometimes given us. And I want that to continue, make no doubt about it.

I get concerned though when we -- our focus seems to have changed from saving the planet to focusing on very small pieces of what's going on here. Greenhouse gas in any area, if you avoid it, it's a positive. There may be collateral benefits that you might miss if you did it somewhere else, and we should be aware of that.

And I thought the comments that let's get the health effects that was just suggested really is a good one.

But I think let's keep on a practical course -- a practical course, as we have in the past. We've had difficult issues before us. We had to backtrack on the

electric cars when we found out they weren't working, folks. I don't know if this Board would do that. We'd probably just continue that course until we crashed into a huge wall.

I think what we have to do is be flexible. We have to work with each of the groups. We have to identify policies within those areas that will help us have a reasonable chance of meeting those goals. And, gosh, if we could incentivize making the milestones along the way, I think that would be fantastic. I would be a whole different way of looking at this, and being positive as opposed to punishing.

And, you know, at the end of the day, we might even have healthier people and a healthier economy. And I think that ought to be the goal.

CHAIR NICHOLS: Thank you. I'm going to move on down the line and remind people that this was the first item that was supposed to take a little over an hour.

Obviously, it's of great interest to all the Board members and I don't want to cut you short, but I'd like to remind us we've got some work to do also.

Next.

BOARD MEMBER DE LA TORRE: Thank you. This is a comment on this item, but I think it relates to a couple of other things we do here at CARB. We always focus at

CARB on regulatory our authority, our enforcement authority, and our incentive authority. I think we need to start thinking, and it fits here and in these other places, about being a hub for the things that we are looking for.

The changes we're going to have to make between now and 2030 to get to our targets are significant. And I think too often we're so focused on those three that I mentioned, that we aren't thinking ahead of -- we need game changers in the State of California.

And I think in this context for 375 -- and I'll talk about those other ones when those items come up in the future. But for 375, in talking to community folks, EJ folks, talking to some government folks, they don't know what we have seen works. In San Diego, they might not know that in Sacramento, they're doing something that is really working. In the East Bay, they may not know that the Inland Empire is doing something that's really working. That fits. The comments today from San Luis Obispo clearly is different from other parts of the State.

But there's got to be something that's going on in another part of the State that's really working that we're seeing results on, but they don't know, because they're not talking to each other.

We are the hub. We're the ones who take

everybody's input and we're the ones who are tracking what's working, what's not working. And so I think, CARB, we have to be that hub in the 375 context of what we are seeing that is working, not in a command and control way, just a menu to identify the things that are working, that really yield results. That these local planning authorities should be looking at for their regions. And they can decide whether they put them in or not.

But we're saying, hey, these are the things we're seeing that really get results. This is where you're going to get a bang for your buck. And so in this context, I think this is a place to start to do that, so that those government agencies have access to it, and the general public does, because then they can say, well, wait a minute, I'm in the Central Valley, and there's something in the Inland Empire that looks a lot like what -- our region, and we could be doing something very similar here. And it gives -- it empowers them, and it empowers the government agencies.

So that's my addendum to all of this conversation. I think it's a very positive move for CARB to take in that direction. And like I said, there are other areas where we could be performing the same role.

Thank you.

CHAIR NICHOLS: Thank you. No comments.

Okay. I'm going to bring it back then for just one last comment and dismissal of this item. And that is I want to really underscore what Hector just said about the need to spend some of our time and energy on better ways to collect, analyze, and disseminate information about what's working in this field.

I am -- I'm sure, like many of you, besieged with news letters from multiple organizations, many of which are doing work in this area, and there's good work going on without a doubt. But being able to try to figure out how to put it together, and compare, and actually measure what's working as opposed to just the reports of projects would be a huge addition to the overall discussion here.

The other thing I just wanted to mention is the legislature passed and the Governor signed a bill last year that requires ARB to meet regularly with the CTC. And I'm not sure if the first meeting has been scheduled yet. It has not. I see head shaking. But this is a really important item to put on the table, the connection with housing, the connection with the expenditure of SB 1 funds, the issue that was brought up by several of the speakers about how funds from that wonderful measure can be used for capacity expansion that works against what we're dying to do here is a critical one. And we can't just let that keep on being mentioned and not do something

to really join that conversation.

So with that, thank you for a very stimulating discussion, and we will shift to the scoping plan item. And while we're doing that, I'd like to talk a little bit about schedule, because we have a large number of people who signed up to speak on this item, as well as a pretty robust staff presentation.

This is the third reading, if you will, the third hearing on this scoping plan. And although it's changed some since we first began, it hasn't changed all that much, and the goals that are -- that it's aimed at are certainly still here.

So to the extent that we're going to be hearing testimony that basically repeats what people said before, I don't really think we need to have 3 minutes for every speaker. I think we could go back to our default system, which we use for just giving 2 minutes per speaker, if the rest of the Board is willing to allow that. I know there's at least one group that have combined forces to put together a presentation as a group, and that's fine. That's helpful.

And if others want to think about how to do that, effectively, that could be good too. But I'm thinking that what we should do is get through the staff presentation and then break for lunch. Try to keep our

lunch under an hour. We don't have a closed session or do we?

CHIEF COUNSEL PETER: We do have a closed session, Chair Nichols, but it's only going to take 10 minutes. Just very short.

CHAIR NICHOLS: Okay. Then we don't have to extend time for that.

Okay. So let's proceed along that path then.
BOARD MEMBER RIORDAN: That's a good idea.

CHAIR NICHOLS. Thank you.

After enough years of this job, you eventually get to fill -- you figure out some of these issues.

Yes, and I think -- I've also received a suggestion, sotto voce, that we try to make it a half hour lunch, which I think is also a good idea. The Board Clerk wants, or someone wants, to let our staff know that we're going to try to get through the lunch very quickly. That would be helpful also.

Okay. Are we ready to go on the scoping plan?

I see the -- I see the key people are in place,
so let me just kick this item off then very briefly.

For anybody who hasn't been following it, the second item on today's agenda is consideration of the 2017th edition -- 2017 edition of the Climate Change Scoping Plan, which is the key document that is designed

to show how we're going to achieve our 2030 climate goal of 40 percent reductions from 1990 levels in greenhouse gas emissions, and ensure that we're on a path to deeper reductions that are needed by 2050 to avoid the most catastrophic impacts of climate change.

We've been at this for more than 10 years, beginning with AB 32, which was the State's first venture into comprehensive and binding efforts to reduce greenhouse gas emissions. The first scoping plan included a diverse portfolio of measures, both specific targeted regulatory measures and market measures designed to achieve the 2020 target.

I think at this point, we can acknowledge that we've made great progress under that portfolio of approach. Our greenhouse gas reporting and inventory data indicate that we are poised to meet the target of 2020 and go beyond it. Our early estimates for costs for batteries and renewables, such as solar and wind, failed to anticipate how quickly these technologies would fall in cost, and become economical to deploy. So we were conservative in our predictions. And fortunately, technology exceeded our expectations. Similarly, a number of our other programs could be said to be overperforming, which just gives us a head start on the much more serious reductions that are needed to achieve the 2030 target.

As greenhouse gas emissions in this State have declined, the economy has continued to grow. So certainly the worst fears of critics of AB 32 also failed to appear.

California's climate leadership has been recognized globally, and other jurisdictions are following similar paths. We know that going forward preventing the worst impacts of climate change will require continued accelerated development and deployment of technologies, not just in California, but around the world.

With the passage of SB 32 and AB 197, California reaffirmed our commitment to reduce greenhouse gas emissions, and to continue our global climate leadership role, while making sure that we have the tools to effectively understand and address local air pollution concerns at the same time.

In addition, with the passage of AB 398 and AB 617 earlier this year, the legislature clarified the role of cap and trade through 2030, put it on a firm foundation, and provided new tools to continue to improve air quality at the community level, especially in the most burdened communities.

The plan that we are here to consider today outlines not only how we meet the greenhouse gas reduction targets that are now set in law, but also provides a visionary look at the longer term and the deeper kinds of

transformations that we're going to need to stabilize climate.

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This plan provides a policy framework to achieve our 2030 target. And I would note that some of the policies that are included in this scoping plan are in direct response to legislation that was carried by two of our Board members, Senator Lara's short-lived climate plant, and Assembly Member Garcia's post-2020 Cap-and-Trade Program.

The multi-agency plan that was before us today was developed over the last 25 months in consultation with environmental justice advisors on our committee, academic experts, industry, and the public. This is not to say that they all endorse this plan in a whole or in part, but just to say they were consulted and their views were reflected in the product.

Countless hours were spent in public workshops, stakeholder meetings, dialogue with experts, and collaborative work with our sister agencies. And so we truly believe that this is a plan for the State of California, not just for the Air Resources Board.

 $\,$ And with that, Mr. Corey, I will ask you to begin the presentation.

EXECUTIVE OFFICER COREY: Thanks, Chair. And I'll be brief.

The scoping plan, as noted, is designed to ensure the State is able to meet its long-term climate objectives in the most cost effective way, while also supporting economic, environmental, and public health priorities.

And as noted, this plan incorporates legislative direction provided in AB 32, SB 32, AB 197, and AB 398, Board direction provided at the January and February Board hearings.

The draft of this plan was first presented as you noted to the Board in January -- at the January Board hearing, and again in February. And at the meetings, the Board provided direction to the staff on some additional analyses, and requested an opportunity to have a joint meeting with EJAC members of which there were actually two meetings.

So we're confident this plan will keep us on track to achieve our long-term climate goals.

And with that, I'll ask Jacob Zielkiewicz to give the staff presentation.

Jacob

(Thereupon an overhead presentation was presented as follows.)

AIR POLLUTION SPECIALIST ZIELKIEWICZ: Thank you, Mr. Corey. Good morning, Chair Nichols, Vice Chair Berg, and members of the Board.

As Mr. Corey mentioned, today I will be presenting the 2018 scoping plan, the strategy for achieving California's 2030 greenhouse gas target for consideration for Board approval.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: I'll start today's presentation with background on the scoping plan, including legislative history directing scoping plan development, the progress we've made on reducing greenhouse gas emissions, and the process that we've undertaken over the past 2 plus years in developing the 2017 scoping plan update.

Next, I'll provide an overview of the scoping plan, including the measures that make up the scoping plan strategy, and the analyses undertaken as part of the scoping plan process.

I'll then speak to the next steps, including implementation of the scoping plan strategy and the ongoing work that's occurring to monitor and provide feedback on performance of our climate programs.

Lastly, I'll provide the staff recommendation of approving the scoping plan.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Next slide, please.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: AB 32 direct the California Air Resources Board to develop a scoping plan to lay out the path for the State to achieve the 2020 limit, and to update the scoping plan at least every 5 years. The initial scoping plan was developed and adopted in 2008, and the first update followed in 2014. The initial scoping plan included a range of greenhouse gas reduction actions that included a mix of direct regulations, incentives, and a market-based mechanism, the Cap-and-Trade Program.

In 2016, the legislature pasted Senate Bill 32, which codified the 2030 greenhouse gas limit in statute. The 2030 GHG target of 40 percent below 1990 levels by 2030 was initially established by Governor Brown through Executive Order in 2015, which also directed CARB to update the scoping plan to reflect a path to achieve the 2030 target.

Along with SB 32, the legislature passed AB 197 authored by Eduardo Garcia. AB 197 provides direction on the development of the scoping plan to consider the societal costs of greenhouse gas reductions and prioritize measures resulting in direct emissions reductions.

In addition, AB 197 also follows existing requirements in AB 32 to consider the cost effectiveness

and technological feasibility of measures in the scoping plan and to minimize leakage. Lastly, just this past year, the legislature passed AB 398, also authored by Eduardo Garcia, which directs CARB to update the scoping plan no later than January 1st, 2018, and companion legislation AB 617 which provides new tools to address air quality levels in communities.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ:

California's annual statewide greenhouse gas emissions inventory, shown here by the yellow line, is an important tool for establishing historical emission trends and tracking California's progress in reducing greenhouse gases. We see that our GHG emissions have followed a declining trend since 2007, and are 10 percent lower since peak levels in 2004.

In addition, we have the mandatory reporting regulation or MRR, depicted by the shorter teal line in the graph. The MRR line tracks the inventory, which makes sense since MRR requires large emitters of greenhouse gases to report their GHG emissions.

The MRR data collected is approximately 80 percent of the emissions included in the inventory. The dashed light blue line is the 2020 target established by AB 32. Though we have yet to attain the 2020 target, the

declining trend in the GHG inventory, the recent MRR data, and our modeling suggests that we'll meet our AB 32 target in advance of 2020, also providing a head start on the next decade where the rate of reductions must almost double.

The blue line shows per capita GHG emissions, which have decreased by about 20 percent from a peak in 2001 of 14 tons per person. This reflects that our climate programs, as they are phased in and take root are delivering the real GHG reductions we expected to see, and in some cases -- and in some cases overperforming.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Overall, trends in the inventory also demonstrate that the carbon intensity of California's economy or the amount of carbon pollution per million dollars of gross domestic product is declining.

This represents a 33 percent decrease since the 2001 peak, while the State's gross domestic product has grown 37 percent during this period. These last 2 slides demonstrate that a portfolio of policies, as originally included in the first scoping plan, is the right mix for California, as greenhouse gas emissions have decreased and the economy has grown.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: As part of developing the scoping plan update, it was important to understand the sources of greenhouse gas emissions. This pie chart provides a snapshot of the GHG emissions for each large sector-based on the 2015 AB 32 inventory. By far, transportation is the single largest source of carbon dioxide emissions in the State.

Upstream transportation emissions from the refinery and oil and gas sectors are categorized as CO2 emissions from industrial sources and constitute about 50 percent of the industrial source emissions.

When these emission sources are added to the transportation sector, the emissions from transportation amount to approximately half of statewide GHG emissions.

Reducing emissions in this sector is critical to achieving the 2030 target. However, to meet the deep reductions needed to stabilize the climate, it is important to reduce emissions from all of the sectors in the pie chart, and that is exactly what the scoping plan does.

Not included in the pie chart is the natural and working lands sector, which is estimated to have approximately 898 million metric tons of carbon in above ground carbon stock. There is ongoing work to better quantify this biologically complex sector. However, due

to the magnitude of potential sequestration and emissions, we cannot ignore this sector and the role it can play in achieving our long-term climate goals.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: The 2017 scoping plan update has been developed over the past 2 and a half years in coordination with our sister agencies, the legislature, economic reviewers, the public, and the Environmental Justice Advisory Committee. Public engagement and review is important with all CARB processes, and the scoping plan is no different.

We've been before the Board 5 times and held 15 public workshops. The Environmental Justice Advisory Committee was reconvened for this scoping plan update, and they held over 20 public committee meetings, and 19 community meetings in various locations statewide.

We also consulted a group of economic expert reviewers who have served in an advisory capacity in the assessment of the economic impacts of the scoping plan.

Lastly, we have received and reviewed over 500 public comments on the scoping plan.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: This slide lists some of the key objectives of the scoping plan. A primary goal of the scoping plan is to achieve the 2030

greenhouse gas emissions reductions target and to put us on the path to achieving the long term 2050 limit of 80 percent reductions below 1990 levels. We want to provide direct greenhouse gas emissions reductions in our largest economic sectors to ensure our economy is transitioning to more sustainable production and energy, while also ensuring that we reap air quality co-benefits and protect public health.

The plan should also minimize emissions leakage and ensure any reductions in California are not just a result of a relocation of those sources or production out of State, which would also mean a loss of jobs and economic activity in the State.

The scoping plan must include a mechanism to support climate investments for programs in disadvantaged communities to ensure these communities can benefit from the clean technology fuels and become more resilient in the face of climate change.

To date, more than \$5.5 billion have been generated by the Cap-and-Trade Program, 35 percent of which must be used to benefit disadvantaged and low income communities and households.

We want to make sure we are able to work at subnational and national levels to ensure greater GHG reductions through mutual collaboration. For example, our

Cap-and-Trade Program is currently linked with Quebec's program and with Ontario's program effective January 1st, 2018.

The scoping plan should also be cost effective. We want to meet our GHG targets at the lowest cost to our economy and consumers and provide compliance flexibility so that the economy can grow, minimize impacts to consumers, and support a robust workforce while still reducing emissions.

We also want a scoping plan that readily meets the mandates in the U.S. EPA Clean Power Plan and supports other federal programs whenever they are ready to move forward.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Over the summer, the legislature passed AB 398, which directs CARB to update the scoping plan no later than January 1st 2018, and clarifies the role of the Cap-and-Trade Program through 2030.

In addition, AB 398 directs CARB to make certain adjustments to the Cap-and-Trade Program, specifically to include specified price ceilings, price containment points, offset credit compliance limits, and industry assistance factors for allowance allocation as part of a post-2020 Cap-and-Trade Program. We kicked off a workshop

in October on post-2020 Cap-and-Trade Program design in conformance with AB 398.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: AB 617 is the companion legislation to AB 398. It directs CARB to expand air quality monitoring and to reduce exposure to criteria and toxic pollutants in California's most burdened communities through the development of community action plans.

This work will include a robust public process in coordination and partnerships with the air districts and the California Air Pollution Control Officers Association.

We have begun the process by holding informational meetings throughout the State on the implementation plan for AB 617. Staff will return to the Board in March to provide an update with final recommendations for priority communities and the statewide planning framework due to the Board in September.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: I will now discuss the proposed scoping plan.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Like the first scoping plan, this update proposes a suite of complementary measures that will help us achieve our 2030

greenhouse gas reduction targets. The key measures include increasing renewable energy and energy efficiency, reducing emissions from high global warming potential gases, putting millions of zero-emission vehicles on the road, decreasing dependence on transportation fossil fuels, and instead encouraging deployment of alternative fuels, improving the efficiency of the freight sector, and advancing zero electric technology within the freight and heavy-duty sectors, supporting the sustainable community development, and a post-2020 Cap-and-Trade Program.

Based on our uncertainty and evaluation of alternative scenarios, this suite of policies has the highest certainty of achieving the 2030 climate goal.

Further, it is important to note that several of the policies, including in the proposed scoping plan, are primarily developed to achieve federal and State air quality standards with co-benefits of greenhouse gas reductions.

The scoping plan leverages these planned efforts to reduce harmful air pollutants, and achieve the 2030 target.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: As part of the development of this scoping plan, we considered four alternative scenarios based on Board direction, EJAC

recommendations, and industry comments. They are presented on this slide with some of the reasons that informed our ultimate recommendation.

The no cap-and-trade alternative included prescriptive regulations to replace cap and trade. Additional activities were modeled in a wide variety of sectors, such as specific required reductions for all large GHG sources and more extensive requirements for renewable energy.

Industrial sources would be regulated through command and control strategies. We would also need incentive funding for programs to replace and retire less efficient cars. This would require new statutory authority, would offer fewer options to minimize leakage, and would cost more than the scoping plan.

The carbon tax alternative used a carbon tax to put a price on carbon instead of the Cap-and-Trade Program. It does not provide a firm emissions limit resulting in greater uncertainty in meeting our 2030 target. In addition, establishing the right price to incentivize reductions is difficult. Uncertainty surrounding the right carbon price, ultimately means that this alternative may fail to achieve reductions beyond the known baseline policies and measures.

The all cap-and-trade alternative kept the Low

Carbon Fuel Standard at a 10 percent carbon intensity reduction and would impede on transportation fuel diversification.

And the cap-and-tax alternative placed a declining cap on individual industry facilities and individual natural and gas fuel suppliers, while also requiring them to pay a tax on each metric ton of GHGs emitted. This alternative has the highest direct cost with potential detrimental economic impacts and loss of jobs.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Since the first draft of the scoping plan was made available in January of this year, there have been updates to the emissions modeling to reflect new information and legislative direction. The final modeling reflects consultation with sister agencies to reflect that more reductions are underway than we had counted in January.

First, because of utility divestiture more reductions in coal were already planned. Second, we realized that it was not accurate to model a 33 percent RPS for 2020 when the latest data indicates we will be at about 40 percent in 2020, because costs for solar and wind power make them more favorable from an economic standpoint.

In addition, we need to ensure the refinery sector measure was removed and attribute those reductions to the Cap-and-Trade Program pursuant to AB 398.

The net result of these updates is that the scoping plan needs to procure fewer reductions to achieve the 2030 target than we thought in January. The Cap-and-Trade Program, which must make up tons from the refinery measure, increased by 45 million metric tons in the year 2030 in the final version. All of the details for the modeling in January and this final plan are posted to our website and include all data output files.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: This slide shows the expected greenhouse gas emissions by economic sectors. The left most bar -- the left most bars of each sector group are the 1990 levels of emissions, and the right bars of the expected GHG emissions by 2030 with implementation of the scoping plan.

For the high GWP and waste sectors, we see increased emissions between 1990 and 2030 as a result of expected growth in these sectors. Absent the Short-Lived Climate Pollutant Plan, which limits the total amount of emissions to 40 percent of 2013 levels by 2030, the emissions from these sectors in 2030 would be even higher.

For all other sectors, we see decreases from 1990

levels. Some sectors reduce more than 40 percent by 2030, and some by less. For transportation, successful implementation of the scoping plan will reduce on-road fuel demand by at least 45 percent from current levels.

Lastly, in 2030, cap-and-trade is expected to deliver an additional 34 to 79 million metric tons throughout the economy. So there will be additional emission reductions to the covered sectors on the slide based on where it's most cost effective to reduce the emissions.

These additional reductions are not depicted in the bar chart since the exact apportionment of greenhouse gas reductions among the covered sectors is unknown.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: In recognition that the natural and working lands sector plays a critical role in addressing climate change, we have two objectives, to maintain them as a resilient carbon sink with net zero or negative greenhouse gas emissions, and to minimize the net GHG and black carbon emissions associated with management, biomass disposal, and wildfire events to 2030 and beyond.

We are also proposing a preliminary intervention-based target for sequestering and avoiding emissions by at least 15 to 20 million metric tons of

carbon dioxide equivalent by 2030 through existing pathways and new incentives.

This intervention-based goal is a beginning point for further discussion and development. However, based on newly released information, we believe we should work with our sister agencies to reassess this initial target as part of the development of the Natural and Working Lands Implementation Plan in 2018.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: For the first time the scoping plan includes new analyses required under AB 197. For each evaluated measure in the scoping plan strategy and the alternatives, this includes cost per ton, greenhouse gas reductions, potential criteria and toxics impacts, and societal costs in 2030.

These are publicly posted on our website and were considered as part of the development of the scoping plan strategy staff is proposing today.

The suite of policies in the scoping plan strategy are responsive to the AB 197 direction of prioritizing and providing for direct GHG emissions reductions in mobile and stationary sources, while considering cost effectiveness, and minimizing leakage.

Specifically: The advanced clean cars regulations require emissions reductions in the light-duty

vehicle sector; enhanced Low Carbon Fuel Standard requires emissions reductions in light-duty and heavy-duty transportation; SB 350, Renewables Portfolio Standard and energy efficiency will reduce the need for fossil power generation; the Cap-and-Trade Program constrains and reduces emissions across the transportation, electricity, and industrial sectors; and SB 1383 and the Short-Lived Climate Pollutant Reduction Strategy require reductions in the agricultural, commercial, residential, industrial, and energy sectors.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Per Board direction, we also estimated the avoided health impacts due to emissions reductions of the scoping plan strategy. We relied on a U.S. EPA approved methodology to estimate the health impacts of reductions in diesel particulate matter, and NOx that we estimated as part of the AB 197 analysis.

These health impacts in 2030 include reduced incidence in premature mortality, hospitalizations, and emergency room visits associated with emissions reductions of the scoping plan strategy.

In addition, per Board direction, we monetize these avoided health impacts using the U.S. EPA's value of statistical life method. The impact on California's

economy is a benefit of 1.2 to 1.8 billion U.S. dollars in 2030. This estimated value is likely an understatement, as it does not include cancer risk or the carbon-related disease health impacts included in the social cost of carbon.

Lastly, implementation of the transportation strategies, including reductions in vehicle miles traveled with high levels of active transportation would improve health and reduce premature mortality by increasing daily physical activity.

We use the California Department of Public Health estimate of 2,100 fewer premature deaths annually, if Californians increased physical health to meet VMT and climate targets.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: As part of scoping plan development, it is important to consider the economic impacts of the plan. In 2030, the California economy is projected to grow to \$3.4 trillion, employment to reach 23.5 million, and personal income to be \$3 trillion.

Implementation of the scoping plan would not change the forecasted growth in the economy. In fact, in 2030, based on our analysis, the impact of the scoping plan on the California economy is a 0.3 to 0.6 percent

contraction, which translates to the economy taking three months longer to grow to the gross domestic product estimated in the absence of the scoping plan.

Additionally, reducing greenhouse gas emissions 40 percent below 1990 levels under the scoping plan will lead to avoided social damages from climate change on the order of 1.9 to \$11.2 billion, as estimated using social cost of carbon, and social cost of methane.

We also expect to see additional growth in new clean sectors and climate-related health impacts that are not captured by the social cost of carbon and methane metrics. As a result, the economic benefits are underestimated as are the costs of avoided damages.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: There are many goals and policies included in the scoping plan, but there are a few key points worth noting for your consideration. First, this plan provides the most feasible path for achieving the State's 2030 target.

Second, the 2030 target is just a milestone on our path to ensure -- to ensuring we achieve the reductions needed to avoid the worst impacts of climate change.

Third, this plan is not the end. We need to continue to evaluate and incorporate additional

opportunities to reduce greenhouse gases, criteria, and air toxics emissions. The scoping plan for the first time includes lists by economic sector of potential additional opportunities to reduce emissions.

We acknowledge those items may need additional research, are currently subject to costs or technology barriers, or may need additional statutory authority, but we will continue to pursue them with our sister agencies.

Fourth, as directed in AB 32, implementation of any of the scoping plan measures must not disproportionately impact already burdened communities. Finally, as is our practice, we will continue to monitor, adjust, and enforce existing air quality programs in addition to implementing AB 617.

Those existing programs have already dramatically improved regional air quality, and remained part of our toolkit to further reducing emissions in the state.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: A draft environmental analysis was completed for the scoping plan that was released in January of this year. Staff determined that implementation of the proposed known commitments in the scoping plan may have potentially significant indirect impacts to some resource areas. However, these impacts are mainly due to short-term

construction-related activities.

The draft EA was released for an 80-day comment period, which ended on April 10th, 2017. Staff prepared a final environmental analysis and written responses to all comments received on the Draft EA and posted them on our website earlier this month.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: Staff also prepared a supplemental response to comments -- staff also prepared a supplemental response to comments document to address late comments received.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: This document was posted on our website this morning and copies were also provided to the Board.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: I will now talk about scoping plan implementation.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: As we move to implementation, it is important to note that each of the scoping plan measures will undergo its own public process with additional analyses and public input. The various interagency work groups identified in the scoping plan will convene to pursue their respective endeavors, be

it the Natural and Working Lands workgroup, or the Vehicle Miles Traveled workgroup.

The Natural and Working Lands Implementation Plan will be developed by 2018 to evaluate a range of implementation scenarios for natural and working lands and to identify long-term sequestration goals that can be incorporated into future climate policy.

We also need to implement AB 617 and AB 197.

This means building on our integrated emissions

visualization tool in order to improve access to air

emissions data. It also means improving air quality in

the most burdened communities throughout our state.

And we will be working to explore how to better integrate health analysis and health considerations in the design and implementation of programs. Lastly, we will be revisiting guidance for California climate investments to dress 2017-2018 budget appropriations.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: It is important to remember that this is not the end. It is the beginning. In addition to the -- in addition to the 5-year update cycle for the scoping plan, there are ongoing monitoring and reporting activities that provide regular, publicly-accessible feedback on scoping plan program performance, and therefore provide the ability to

make midcourse adjustments, if needed.

This process of ongoing monitoring, review, and adjustment are the norm for ARB's programs. The list below focuses on these opportunities for our climate programs.

As required by AB 1803, CARB is responsible for preparing, adopting, and updating California's greenhouse gas inventory. Statewide greenhouse gas emissions inventory data is published annually. Under California's mandatory greenhouse gas reporting regulation, industrial sources, fuel suppliers, and electricity importers must report their annual GHG emissions to CARB.

Data provided by reporters subject to the Cap-and-Trade Program is verified by a CARB-accredited independent third-party verifier. A status report on scoping plan implementation is to be provided to the Board on an annual basis.

Per direction in SB 10 -- 1018, CARB provides a series of reports on key climate programs, and on actions proposed by the Western Climate Initiative Incorporated, of which California is a member, every 6 months in addition to annual fiscal and resource reports.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: AB 197 directs CARB's Chair to appear before the Joint

Legislative Committee on Climate Change Policies and present the State Board's annual informational report on the reported emissions of greenhouse gases, criteria pollutants, and toxic air contaminants from all sectors covered by the scoping plan.

AB 398 requires the newly established Independent Emissions Market Advisory Committee to at least annually report on the environmental and economic performance of relevant climate policies. Lastly, AB 398 requires that the Legislative Analyst's Office annually report to the legislature on the economic impacts and benefits of specified greenhouse gas emissions targets.

Indeed, there are numerous venues and media through which CARB and other committees provide pertinent information on program performance with opportunity for public and legislative feedback.

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AIR POLLUTION SPECIALIST ZIELKIEWICZ: In closing, staff recommends that the Board approve the proposed resolution, which includes approval of the written responses to environmental comments received, including the supplemental response to comments document provided to the Board today, certification of the final environmental analysis, and making the required CEQA findings. And lastly, approval of the 2017 scoping plan

update.

Before Chair Nichols asks for public comment, I would like to invite our representatives from sister agencies to provide their public comments followed by the Environmental Justice Advisory Committee.

We'll being with Jenny Lester Moffitt from CDFA.

CHAIR NICHOLS: Welcome.

MS. LESTER MOFFITT: Good morning.

Can you hear me now?

CHAIR NICHOLS: Yes. Thank you.

MS. LESTER MOFFITT: Good morning, Chair Nichols and the rest of the Board. Thank you for having us here today. My name is Jenny Lester Moffitt and I am Deputy Secretary at the California Department of Food and Agriculture.

As you guys all know we are a State leader -- or global leader in our climate change goals and our agriculture industry has also stepped up to the plate and really ramped up the work that we're doing in the agriculture industry on achieving those climate change goals.

Certainly as we talk about and we heard about our methane, there's SB 1383 reduction goals. Our dairy industry has been working, along with the Air Resources Board on addressing those. We have actually just did --

announced a whole new slough of funding for our dairy digester program, and we're in the middle of also working on an alternative Manure Management Practice Program.

Ag has been working on water efficiency, land conservation, and land management practices that include healthy soils. This scoping plan that is before you guys today outlines an aggressive yet achievable plan for meeting our State goals.

For the first time ever, this plan has a goal -- a statewide goal for the natural and working lands, including agriculture for greenhouse gas reductions, both carbon sequestration and reductions. It is important as we recognize this goal that this is the first time ever that we have such a goal, and it is important that we recognize that by achieving this goal, we can achieve it by working with and supporting industry and private land managers as we build climate resiliency and sequestration in our land base.

I commend your Board for leadership in this, and I commend your board and a strong focus on the public process as well. I commend your staff for their engagement with us as and our sister agencies. I know we have more work to do, and I look forward to continued collaboration, because our work is important and the world is certainly watching us.

1 Thank you.

CHAIR NICHOLS: Thank you.

MR. BRIGHT: Good morning. I think it's still morning. Good morning, Chair Nichols and Vice Chair Berg, and the members of the board. So my name is Kealii Bright. I'm the Deputy Secretary for Climate and Energy at the Natural Resources Agency. And first, I just wanted to congratulate you for getting to the finish line. We're not quite over the finish line yet, but we're right at the line.

And then second, from the Agency from Secretary Laird, I really wanted to commend your -- your placement of a stake in the ground for making natural and working lands and important and accountable piece of the scoping plan.

You know, California leads the nation and leads the world in climate science. We are -- we chase science, but we have a really good understanding of what our lands -- what risks and what -- and potential our lands pose for our State's climate goals. And this plan puts in place a process for us to harness all of our State's conservation activities to really maximize those lands' ability to serve as carbon sinks for the State.

Year over year, the State supports incredible funding amounts for conservation through State bonds,

local tax measures, GGRF programs. And that really is -that really spans across multiple administrations and
multiple political cycles. And what we are excited to be
a part of is harnessing this opportunity to take that
conservation ethos that is proven in our State and
materialize that into deployable tools to impact our
State's climate goals.

So thank you, and congratulations.

MR. BOHAN: Good afternoon. Chair Nichols and Board members. My name is Drew Bohan. I'm am the Executive Director for the California Energy Commission. I want to second the comments you just heard about the terrific work of your staff. I'd have to call out Rajinder, because she's worked so closely with our staff over the last couple years. We're pleased to provide input on this -- on this document.

Electricity sector is down 24 percent since 1990. I noticed from one of the slides that Jacob showed that the electricity sector was the second largest and is now the third largest having achieved pretty significant reductions over the yeas. They'd be higher, but the last year we have records for is 2015, which was a drought year, so our production from GHG free or very low hydro was down. So the figures will probably continue to go down as hydro goes up.

The -- going forward, the scoping plan contemplates additional reductions from the electricity sector, and we're confident that additional reductions are achievable. Just over two years ago, Governor Brown signed land mark legislation SB 350, and it called for a number of actions I just want to go over very quickly and give you a sense of what progress has taken place to date.

First, and probably most famous, is the 50 percent -- the requirement for 50 percent of all electricity consumption in California by '23 coming from -- by 2030, excuse me, from renewable energy. Today we are at just shy of 30 percent. And as you heard from your staff, we're well on track to meet the interim goal of 2020, which is 33 percent, and 50 percent by 2030. So good news there.

Second, we are charged with looking at the doubling of energy efficiency requirement in SB 350. And just last month, the California Energy Commission Board adopted a series of targets for 2030, and some recommendations about how to achieve those targets. A good bit of the wedge -- the wedges we need to accomplish by that time are on track. Others we still need to work on to come up with additional measures.

Third, we were charged with developing a barrier study to low income individuals in the State of

California, and barriers to their participating in the clean energy revolution. And a year ago today, the Energy Commission adopted a plan and submitted that to the legislature. It has 12 different recommendations and we have achieved several of them and are well on our way to achieving the rest.

And finally, I just want to note that SB 350 also called for, at least for some utilities, a new approach to look the at GHG reductions and that's to develop IRPs, Integrated Resource Plans. Some utilities had already been doing them, but others it will be their first time. And in August of this year, the Energy Commission adopted guidelines for the publicly-owned utilities.

The PUC will be developing guidelines for the IOUs. And the POUs will be required by Jan 1 of 2019 to have their plans for meeting GHG reductions with an integrated approach that could use renewables, energy efficiency and lots of other tools.

We'll continue to work together with your staff, and again appreciate the opportunity to speak this morning.

MR. McCORMICK: Good afternoon. I can now say good afternoon. I'm excited to be here. My name is Michael McCormick with the Governor's Office of Planning and Research.

I think one of the things that we've been really impressed by this process is the collaborative nature of your staff working with those of us out in State agencies. We've recently released the general plan guidelines, which is document that every State agency and hundreds of workshops, public workshops, focus groups have informed, basically been in process since 2011.

Through that, we provide some guidance on how local governments can move forward on greenhouse gas emissions reductions plans, climate action plans, climate change elements, et cetera. And so I think we were really excited to see a very consistent and collaborative process on the local actions piece of the scoping plan as well.

Obviously, there's been a lot of other aspects of the scoping plan we've worked with. This is probably the piece I've worked most closely on individually with your staff. And we greatly appreciate that prior collaboration on this, and look forward to continuing to work together in the future as well.

Lastly, I just want to thank that tireless staff at the Air Resources Board. They've been such a pleasure to work with, really professional. And I know that we're going to continue having a wonderful working relationship moving forward. So on that, thank you again, and I don't want to be the person that holds you from lunch, so I'll

leave it there.

Thanks.

CHAIR NICHOLS: Thank you. You're not keeping us from lunch. So thank you. We still have at least one more presentation that I'm aware of, and it looks like they're coming forward now.

I just want to thank our State agencies that are represented here today, and I know others were involved as well, that there's been a tremendous evolution, I would say, in terms of the role that State Government as a whole is playing in this climate action work going from the very beginnings under AB 32 when there was a Climate Action Team under the direction of the Secretary for CalEPA that would meet once in many, many months, and sort of hear reports from ARB and people would go away. And, you know, they'd give us their advice or tell us what they thought we weren't doing right, but there was no sense that this was a shared enterprise.

And I think we've come to a point now where there's widespread recognition that although ARB has the honor and the responsibility for tracking all the emissions and doing the plans. And for some of the implementation that whole big swathes of this program belong to other agencies and to local governments and the private sector as well.

And so we've seen really terrific progress on that front. And this just gets more complex and more interesting all the time. So I think there's going to be plenty of work for everybody for years to come. So thank you all for your efforts as well, and now Mari Rose, I'll turn to you.

EJAC MEMBER ROSE TARUC: Good afternoon, Chair Nichols, the Board, the staff, the public. I know we're all eager to get our 2030 scoping plan passed. I do want to dedicate this presentation to the folks who are under -- are experiencing the fires in Ventura and Southern California. I think, you know -- I especially to look to staff and I think about, you know, the folks who are working under those conditions right now.

Can you -- next slide.

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EJAC MEMBER ROSE TARUC: So we have front line communities in climate change. And this is a picture of strawberry fields in Ventura. And I don't know if you can see. There are little dots on the rows on these strawberry rows. And those are farm workers that are still outside working under the toxic air that is -- that is caused by these fires and by climate change. And as a -- I think it's just appropriate that as a farm worker's daughter that I get to present the final recommendations

of the Environmental Justice Advisory Committee.

Next.

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EJAC MEMBER ROSE TARUC: Front-line communities in California, like the one -- like the farm workers in Ventura are part of the State's sacrifice zones. There are -- while we are trying to design a climate plan that is going to reduce emissions, there are communities right now, and in the future, that will be sacrificed because we're not doing enough, and we're not doing them soon enough. And we call these front-line communities.

These front-line communities are different than communities that are on the mid-line or the back of the line or where they have escape. And so we look at front-line communities as those who don't have the privilege of benefiting from an extractive economy. And we see that decisions that went into what goes into the scoping plan and what is approved now are mostly folks who are on the benefiting side of the extractive economy. And so we want to point out that there are those who do not benefit from the extractive economy, who are on the front lines, and those who are making decisions about our climate plan today.

We also have shared with you not just what's bad, but what's -- what is -- what are good solutions that will

work for our communities. So the EJAC has met, yes, almost 20 times. We've held 20 community workshops across the State. The approach to that is because we want to make sure that important policies are actually known by the community, and that's how we can successfully implement these policies. If we didn't do these workshops across the State, only you and the staff and the lobbyists would know about them, but not the communities that would be most impacted by them. So I definitely want to thank CARB and the staff for coming out to different environmental justice communities during the EJAC meetings and the ease workshops to hear from folks what their ideas are for the best climate plants that we could have in California.

There's a long way to go in this culture shift. We've seen the culture shift begin within the Board. And we thank you for meeting with the EJAC twice this year, an EJAC and Board meeting to talk about and exchange our ideas. And so we're seeing that. We're seeing that you have staff now dedicated to environmental justice, something that the EJAC had asked for in the beginning of this two-year process.

And so next slide.

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EJAC MEMBER ROSE TARUC: And so over the 2 years

of our dozens of recommendations, while staff is giving you their preferred proposal, we still see that there are ways that you can improve the staff proposal with these final changes that we want to see you make as the Board to the scoping plan that the staff is presenting you.

We have two dozen priority changes, but these are the top five that we're identifying. They -- so here's a picture of the EJAC when we met last month. They are -- the five are around biomass, around transportation targets, and then around prioritizing direct emissions reductions, making sure there are reports on localized emissions trends, and modeling the Cap-and-Trade Program to meet our 2030 targets.

Next.

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change is a problem with the culture of burning. In the natural and working lands and waste section -- sector, we see a lot of proposals for biofuels, biomass burning, renewable natural gas. And one of the things that we still want you to do in the scoping plan is that in any discussion of waste that you prioritize and emphasize composting and recycling of biomass over biomass combustion.

So this is a picture of a biomass facility in

Delano where I grew up. And those are shredded trees that are then being put into those -- those facilities to burn. And they're probably getting renewable energy credit. And that -- that is not a climate solution to us. That is a problem.

Next.

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EJAC MEMBER ROSE TARUC: Second of the recommendations, we had a lot of discussion on transportation this morning. We know that the transportation sector is such a huge beast to figure out how to reduce emissions. We appreciate actually -- of the sectors of the scoping plan, the transportation sector actually did the best job of doing an environmental justice disadvantaged community and public health analysis. And so we definitely appreciate the authors of the transportation section for doing that.

The thing is we still want to see the numbers.

We want to see the target numbers about how this is going to be -- how the emissions are going to be reduced for the entire transportation sector. I think the meeting that we had with staff last month is we saw some numbers in scoping plan. We were told that, you know, reducing fuel use by half is part of what staff is committed to doing, but we want to see the numbers about how we can

mathematically and scientifically achieve those targets.

Next.

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EJAC MEMBER ROSE TARUC: Because this is the slide that we -- this is the data and the trends that we look at. And interestingly, this did not appear on the full -- the full publication of your scoping plan. It's probably buried in the appendices. And to us like looking at all the sectors and how they are performing over time is important.

So we see that in transportation it's basically flatlining, maybe dipping up -- or going up a little. The industrial section is not making progress at all. And where a lot of these large facilities and polluters are at are in environmental justice communities. So you will see that we will continue to implore upon you that whatever the plans are, the climate plans to reduce these emissions in these sectors because they are In EJ communities that we are going to continue to fight to make them better.

And I think -- so these next 3 slides, and the 3 of the recommendations have to do with the Cap-and-Trade Program and a market mechanism that you have that staff is proposing to you that you are voting on today.

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EJAC MEMBER ROSE TARUC: And I think this is the

biggest divergence in world view between the EJAC and your staff, and those who have made decisions about the scoping plan. We see that the scoping -- the scoping plan right now commits to about 38 percent of the climate plan is based on cap and trade. And we think that that is such a huge number with so many concerns and questions about how cap and trade will really work and how it affects the environmental justice communities, that it is -- it is imperative that you do more and closer and better evaluations about how cap and trade is going to perform and how they -- they are going to affect environmental justice communities.

We've seen from studies that had to be done by the environmental justice community and academics that the current preliminary data that we have is that it's exacerbating environmental racism, that cap and trade is attributed to that, and that emissions are increasing in those subsectors within the cap-and-trade industries, and that California is exporting its climate benefits because of problem -- likely offsets.

And so what are the responses and guarantees to environmental justice communities that that is not the trajectory that you're moving towards in 2030?

Next.

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EJAC MEMBER ROSE TARUC: And so these 3 recommendations -- actually, could you go to the next one.

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EJAC MEMBER ROSE TARUC: Next.

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report on localized emissions trends. You had passed an adaptive management program from the Board. And it's as old as 2011. You have not approved an adaptive management plan to study the emissions trends happening in communities. And while you convened a work group in the last year or two, you have -- there's not an approved plan of how you're going to go about adaptive management to -- if you see these localized emission trends in environmental justice communities that you would do something about it. We have not seen studies. And I doubt that you have been presented those trend reports.

And so it was stunning that at our last month's meeting when we asked staff, you know, where are the -- emissions reports that are local to communities, and they're like what do you mean?

And so I think it was like -- like, did we not have this discussion for 2 years about us wanting to see emissions data that's localized, because all the emissions data that you see in the scoping plan, as it's presented

to you, are basically statewide data. It's statewide data. And so it's like, yes, you know, California is on its path to meeting its greenhouse reduction targets as a State. But how is it happening, and how are you doing that within the most disadvantaged communities of the State?

And you don't -- there aren't reports like that right now. And we think that that should be part of how you move forward is to look specifically and to assure that environmental justice is part of your work and assuring the environmental justice community that you are looking to analyze these and address the problems that you may see.

Next.

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EJAC MEMBER ROSE TARUC: Another thing is that -so while AB 398 moves towards using cap and trade for the
next 10, 13 years, is that there are questions, including
from the legislature, about how you are meeting these
targets, the 2030 targets, with the concerns and problems
that have been raised around overallocation of allowances,
the banking of allowances, the low price that's happening
right now, the offsets that are out of state and
out-of-state sources of emissions.

And so we want to see a modeling of a

Cap-and-Trade Program. Do that, so this chart is from the Legislative Analyst's Office that just came out yesterday or the day before. So -- but folks in the legislature have also been talking about this. And we want to raise that as an environmental justice concern that we want to see how exactly you're going to meet the 2030 targets with these issues that are raised.

Next. Oh actually go back.

Go back, back, back.

Okay. And then the last of the 5 -- not last, but not least, we want to see prioritized direct emissions reductions. And AB 197, we are so excited when Assembly Member Garcia authored that bill, and we saw it through the legislature, and passed, and signed, and handed over to ARB.

What we didn't see and hear at the discussion with the staff last month is how they were actually prioritizing direct emissions reductions with the prescriptive measures that are now in the scoping plan.

It was -- we asked how AB 197 is coordinated with AB 398 and AB 617. And we -- it was unclear how that was going to happen. Just because AB 398 passed doesn't mean that AB 197 disappeared. And even though, there are -- there are studies, multiple studies that are cited in the scoping plan, it doesn't say how the staff in this

proposal prioritized direct emissions reductions in coming up with a suite of measures to achieve the 2030 targets.

If you can -- next slide.

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EJAC MEMBER ROSE TARUC: So this was a -- this was -- these were the suite of prescriptive measures that could have been used. This was in the -- I think the January draft or the draft before -- one of the previous drafts of the scoping plan. And there were all these options for prescriptive measures that could have been included in the current scoping plan, things like the 2 and a half times energy efficiency, or where are the -- where's 25 percent industry or 25 percent reduction from oil and gas. That did not make it into the current proposal that staff has given you.

And so we want to know how staff used the information that they generated from 197, including this chart, how you are prioritizing direct emissions reductions when 38 percent of the scoping plan is reliant on cap and trade?

And so with that, last slide, please.

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EJAC MEMBER ROSE TARUC: Oh. To close, I've been really proud of all the members of the EJAC that met for 2 years, and met with your staff. We did see progress in

environmental justice in the discussions that we have had. And one of the things that we do look forward to is that in the environmental justice section of the scoping plan, it talks about your environmental justice officer and the team, working on an environmental justice strategic plan.

And I think that continue -- that is hopeful, in that you are cont -- dedicated -- committed to continuing engagement with the environmental justice community.

I want to highlight that in the many pages of recommendations from the EJAC, the 5 approaches that we wanted to see you continue to use as you implement the scoping plan is that there is a partnership with environmental justice communities, that in moving towards equity that you are doing equity analysis of the whole plan, the different parts of that, and implementation, that there is coordination with the environmental justice community and among agencies. And we're seeing definitely a good progress on that, as we've seen with the different presentations from the other agencies.

We want to see economic opportunity, be part of the discussion of our climate plans and implementation, because one of the things that the extractive economy has caused a problem with is that a lot of our folks are working in the fields as fires are burning. And we really need to figure out how new jobs opportunities and safer

job opportunities can come to them.

And then lastly, a long-term vision that the climate programs that you commit to now are not -- are going to get us past the 2030, past the 2050 goal and not commit us to certain technologies or measures or programs that would continue to keep us hooked on fossil fuels.

And so that's what the long-term vision is that the EJAC has talked about.

So thank you.

CHAIR NICHOLS: Thank you for that presentation. It was very concise, and I think presented a full picture of the discussion. So that gives us a good basis to move forward into the afternoon session.

So we will take a break and we will resume at 1:00 o'clock, or as close thereto as we can possibly manage to give everybody a chance to talk. So thank you all and we'll see you in about a half an hour.

(Off record: 12:27 p.m.)

(Thereupon a lunch break was taken.)

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1 AFTERNOON SESSION 2 (On record: 1:02 p.m.) 3 CHAIR NICHOLS: All right, ladies and gentlemen. 4 We are ready to resume. I want it to be noted for the 5 record that the Board was actually here at 1:00 o'clock, 6 as we said. 7 BOARD MEMBER RIORDAN: Good for us. CHAIR NICHOLS: I'm not sure where most of our 8 9 witnesses are, but I assume they'll be joining us soon. 10 VICE CHAIR BERG: They didn't believe us. 11 CHAIR NICHOLS: They didn't believe us. See, we showed them. 12 13 And if we miss anybody, we'll let them testify 14 anyway, even if they Missed their turn. If we are ready 15 to begin, which it looks like we, is Henry Hilken here? 16 Yes, there you are. Excellent. 17 BOARD MEMBER GIOIA: Some of us are here for you, 18 Henry, waiting patiently. 19 CHAIR NICHOLS: My Vice Chair is starting to give 20 time away. 21 (Laughter.) 22 CHAIR NICHOLS: We are going to try to keep to a 23 2-minute limit, please. Thanks. 2.4 MR. HILKEN: Fair enough. I can do that.

Good afternoon, Chair Nichols, members of the

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Board. Henry Hilken. I'm the director of planning at the Bay Area Air Quality Management District. And I'm here essentially to express our strong support for the scoping update before you today. California leadership is needed on climate protection more than ever these days. And so today CARB has once again stepped up to the plate and developed a very ambitious, but technically feasible, plan to continue to make deep greenhouse gas reductions and help us on our path to long-range climate stabilization.

We, last October -- excuse me, last April, the Bay Area Air District board of directors adopted our 2017 clean air plan, Spare the Air, Cool the Climate. And the clean air plan includes a climate protection strategy for the Bay Area. It reflects the same long range 2030 and 2050 goals that the scoping plan is framed around. And there are many, many parallels in the respective control strategies. I won't go through them. I think you're probably aware of them.

But I will just -- picking up on the conversation you had this morning on your previous item in the transportation sector, I just want to echo many of the comments that were made about reducing vehicle use. We in the Bay Area are certainly very, very strong believes in electric vehicles and alternative fuels. We, every year, commit many millions of incentive dollars to support

electric vehicles, EV charging. It's vitally important for our long-range climate strategies.

However, reducing vehicle use and vehicle miles traveled is every bit as important. EV technology is necessary, but not sufficient. So I just want to echo the comments that were made this morning about how important it is to increase transit funding and policy to support transit and active transportation.

Our clean air plan is a multi-pollutant plan, because we thought -- and our board was very strong on this, they thought it was important to integrate our climate strategies with our air pollution and health strategies.

An indeed, I think that's really one of the noteworthy -- I'll wrap up in just a moment Madam Chair. It's one of the noteworthy elements of the scoping plan. You're to be commended on it. It's something we've worked with you -- with you for many years. We'll continue to do that.

So in closing, Madam Chair, we support the plan, commend your leadership, and look forward to working with you in the years ahead.

CHAIR NICHOLS: Thank you very much. Thanks for being here.

Is Randal Friedman here?

1 Not yet.

2 | Shelly Sullivan.

MS. SULLIVAN: Good afternoon, Madam, Board, and staff and Board. Madam Chair and Board, I apologize for my hoarse voice, so I'm going to be very, very quick today.

I'm here representing the Climate Change Policy Coalition, and we represent housing and businesses and taxpayer organizations from throughout the State. We want to support the ARB staff recommendations to the 2017 Climate Change Scoping Plan update. And we look forward to providing additional comments, and working with the ARB staff into 2018.

So thank you very much.

CHAIR NICHOLS: Thank you. That's a brave effort there.

(Laughter.)

CHAIR NICHOLS: Sam Bayless. Hi.

MR. BAYLESS: Good afternoon. I want to thank
CARB Board members and staff for the opportunity to speak
on this matter. My name is Sam Bayless. I'm on behalf of
CIOMA, the California Independent Oil Marketers. We
represent about 300 members, including 90 percent of the
independent petroleum marketers in the State.

The fuel supply chain is rather complicated, and

often confused or unknown. I'd like to emphasize that CIOMA members should not be confused with refiners that manufacture petroleum products for the west.

CIOMA members are in the service business to meet market demand through providing services to procure, transport, and retail sell fuel of all kinds, including biofuels and alternative fuels.

Although CARB's vision for the future relies heavily on electric vehicles, it has not yet been proven to be feasible, particularly for heavy-duty vehicles that rely on diesel, including renewable and biofuels.

Many CIOMA businesses lead the charge for responsible bio and renewable fuels and do their part to reduce the carbon footprint of Californians. In fact, a CIOMA member was the first to bring biofuels into State.

We hope to see a greater focus on creating an environment that encourages the growth and development, as well as the ease of storage and access -- excuse me -- of these sustainable fuels. It is not enough to look at 2030 and beyond when CARB seeks heavy emission reductions in the immediate future.

Thank you very much. Have a good day.

CHAIR NICHOLS: Thank you.

Mark Sedlacek, there you are.

MR. SEDLACEK: Good afternoon. My name is Mark

Sedlacek with Los Angeles Department of Water and Power.

And LADWP supports the Air Resources Board 2017 scoping

plan update. The rest of the state we've been undergoing

a trend -- a transformation of our electricity supply. As

of 2016, we're at 29 percent renewables, and cap and trade

has been a critical part of that program.

We've been able to manage our investments more into compliance, and actually result in real reductions for our system. In 2016, we achieved a milestone when our emissions of from our electrogenerating sources were 42 percent below our 1990 emissions.

And a bigger part, since cap and trade has gone in place, we've reduced our emissions on an annual basis from 2013 to 2016 by 4 million metrics tons. And really a lot a part of this is because of cap and trade. Without it, I don't think we would have gotten the numbers that we've seen so far.

And really, the two big things we've done since then is because of cap-and-trade, we will divest of Navajo generating station earlier than expected. And we added a carbon adder into our dispatch of units. And that's actually resulted in the reduction of coal utilization.

So, in closing, we just want to indicate we fully support this program and look forward to working with the Air Resources Board in the future.

CHAIR NICHOLS: Thank you. Thanks for the tremendous progress that DWP has made as well.

MR. SEDLACEK: Thank you.

CHAIR NICHOLS: CALSTART Brian Schuchard.

MR. SCHUCHARD: Good after -- excuse me, good afternoon, Chair Nichols and members of the Board. My name is Ryan Schuchard with CALSTART. We've been involved throughout this process, so I'll try to be brief and just make three comments. First, overall take on the scoping plan, we support it. We think that staff has done the right thing in being relentless in focusing on clean transportation, and putting it among the center of the scoping plan.

In general, staff has had their -- always had their door open to ours and other comments. And they've had to marry a lot of competing objectives and we think that they've done a really good job.

Second, just a word about jobs. Some say that California is a hard place to do business. We have around 20,000 jobs that are directly in clean transportation today. A lot of that is because of the work of the scoping plan to date and related policies and programs. We feel that if the scoping plan is adopted, there's a good chance that we'll double those jobs by the 2025 to '27 range. And we'll show that the -- oh, and the bulk of

those will be in manufacturing, so -- and we'll show that California is, in fact, the place to do manufacturing clean transportation.

And the final thing is just a note on the low carbon fuel standard. Excuse me, CALSTART continues to be a vocal supporter of the LCFS. It's a great program, because it's inclusive, open to all technologies. And although it is source agnostic, it is enabling California fleets to do the investments that are bringing manufacturers to this state. And we'll continue to work with GO-Biz and others to make that be a reality.

So thanks again. Congratulations on being just near the finish line.

CHAIR NICHOLS: Thank you.

Carolina Martinez. Carolina, I should say.

Okay.

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MS. CAROLINA MARTINEZ: Hi. My name is Carolina Martinez with the Environmental Health Coalition. And I'm here bringing a video from community members that couldn't attend. I wanted to make sure their voice was being heard.

Thank you.

(Thereupon a video was played.)

CHAIR NICHOLS: Thank you.

THE INTERPRETER: For the spanish speakers

1 basically what they said is that there are a lot of buses. 2

Some of them are old. And also a lot of cars. And the

zero emission cars they're very expensive. And they're

4 not easy to afford. Someone said that perhaps it might be

a good idea to sell used or make them available.

zero emission cars for low income communities. 6

CHAIR NICHOLS: Thank you. Gary Hughes. all could keep your eye on the and be ready when it's your turn, that would be helpful.

Thanks

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MR. HUGHES: I have 2 -- I have a couple slides that could be shown.

How do I get started?

Great. All right. Chair Nichols, members Okay. of the Board My name is Gary Hughes, and I'm the senior california advocacy campaigner --

CHAIR NICHOLS: She was -- I thought she was part of the video.

MR. HUGHES: -- for friends of the earth.

CHAIR NICHOLS: Oh, I'm sorry. Excuse me. Ιs Ana Reynoso here and wanting to testify again? I thought because she was in the video that we had heard from her.

MR. HUGHES: Yeah, that's why I was late is I thought there was still someone.

MS. REYNOSO: He can before me, if he wants.

CHAIR NICHOLS: Well, if you want to finish up, because you're with that group, why don't you just go ahead and say what you were going to say, and then we'll call on Gary next. Yeah, go ahead. Come on up.

CHAIR NICHOLS: I apologize. I didn't realize that you wanted to speak again.

MR. REYNOSO: Okay. So my name is Ana Reynoso. And I'm here on behalf of Environmental Health Coalition, and the California Environmental Justice Alliance. We urge the California Air Resources Board to create firm 25 percent transportation reduction targets and to reduce VMT by 7.5 percent, so we can reach the 2030 goals.

The scoping plan does not show clear and specific targets for both freight and non-freight vehicle emissions. CARB has reported that the regional SB 375 targets will not fulfill the scoping plan needs.

Transportation is the largest source of greenhouse gas emissions in California, equaling nearly 40 percent of all greenhouse gas, and low income communities of color are at the forefront of these impacts.

This extreme disparity in impacts is due in significant measure to their proximity to freeways and other inadequate transportation planning strategies, which lead to more asthma attacks and higher rates of chronic diseases. Ironically, these residents are also the most

frequent users of public transit.

The solution for these users is an efficient, accessible and affordable transit system that makes it possible to feed their families and to stay healthy. As mentioned by Supervisor Gioia, we need aggressive targets, especially within the transportation sector. Stronger targets result in effective public transportation systems that lead to healthy families and robust economies. We need your strong leadership to address the environmental injustices in our communities.

These can be done with a commitment to 25 percent greenhouse gas reduction targets in transportation, and a reduction of vehicle miles traveled by 7 and a half percent at the state and regional level. We recommend ARB holds environmental justice communities at the center of the target-setting process for the scoping plan. When environmental justice communities benefit, everyone benefits.

Thank you.

CHAIR NICHOLS: Thank you. Okay. Now, Mr. Hughes.

MR. HUGHES: All right. Thank you, Chair.

Members of the Board, my name is Gary Hughes and I'm the senior California advocacy campaigner with Friends of the Earth U.S.

I submitted 2 reports for the clerk to distribute to Board members. These reports challenge assumptions about the effectiveness, the equity, the mortality, and the ethics of reliance on carbon pricing and pollution trading for climate policy. One report is from Brazil written by Friends of the Earth International. It explores the California-Chiapas-Acre MOU and is titled Legalizing the Mechanisms of dispossession.

The other offers a critical look at carbon pricing and discusses how communities can continues to build solidarity against the threat of linking global carbon markets.

One of the biggest take-homes from these reports and from looking closely at the case study of California is that carbon markets are a cover for continuing with business as usual.

One of the best ways to understand point is to identify the places that are at risk due to the business-as-usual cover of California's carbon market. The Alaskan Arctic is at risk. The tax reform bill on the way to being passed by the U.S. Congress includes opening of the irreplaceable Arctic National Wildlife Refuge to oil drilling. About one half of the crude oil that comes out of the pipeline in Valdez comes to California refineries, where it is then regulated under the

Cap-and-Trade Program.

Let us be clear, there is nothing that would ever qualify as climate action from refining even one drop of oil from ANWR in California's refineries underneath cap and trade.

Though increased production of Alaskan North
Slope crude could change the trend. Let's also notice
that 2016 was the first year that more crude from Ecuador,
namely the Amazon of Ecuador, was refined in California
than was crude from Alaska. One in 10 barrels of oil
refined in California in 2016 came from the Amazon
rainforest.

Note that oil extraction is one of the major drivers Of tropical deforestation, a reality totally ignored by the scoping plan update.

There will never be anything climate friendly about the deforestation resulting from oil extraction in the Amazon, even when the oil is refined under the Cap-and-Trade Program.

CHAIR NICHOLS: Thank you. And we do have your reports also.

MS. ALI: Good afternoon, Chair Nichols and members of the Board. Fariya Ali on behalf of PG&E.

A long time ago in a workshop that took place not that far away, the scoping plan update process began. And

the plan before you today reflects robust stakeholder feedback and numerous revisions throughout that lengthy possess. We believe that it charts a plausible path to our very ambitious climate goals, and we strongly support it.

Cap and trade is a critical part of that plan, and there is a separate proceeding through the AB 398 amendment process to continue to discuss some of the topics that others have raised regarding that program. And as well for some of the other issues that folks have raised, there are other venues to continue to look at those.

This scoping plan is not a regulation. It is a plan, and we should move forward with its implementation.

As California's climate policies continue to advance and change, so the plan will be updated again. For now, this version of the plan is ready, it provides an accurate and insightful snapshot of California's climate policies and their costs, and so it should be adopted today.

Thank you, and may the force be with you.

CHAIR NICHOLS: Great.

(Laughter.)

MR. COSTANTINO: Hello. Jon Costantino. I don't

25 know how I follow that. But here on behalf of SCPPA,

its --

CHAIR NICHOLS: You could quote from Wonder Woman maybe.

(Laughter.)

MR. COSTANTINO: -- its member utilities, and its million of ratepayers. We wanted to just officially be on the record to say that we thank staff for their hard work, the two plus years that it took to get here, the numerous changes, and that we support the cap-and-trade provisions in the scoping plan, and that the market-based mechanisms are an efficient way to go.

So thank you.

CHAIR NICHOLS: Thank you.

MS. GIBSON: Good afternoon, Chair Nichols and Board members. My name is Jamesine Rogers Gibson. And I'm the senior analyst with the Union of Concerned Scientists. On behalf of our 86,000 supporters in California, I thank you for your continued climate leadership over the past decade. The 2017 Climate Change Scoping Plan builds upon this success. And we thank you and your staff for your work to develop this plan.

I'd also like to take an opportunity to thank the EJAC for their presentation, and their efforts to highlight communities' needs and concerns throughout development of the plan. We generally support their final

top recommendations.

Overall, we support the plan. We do think there are a few places where it could be strengthened to ensure that we are able to achieve the SB 32 greenhouse gas limit. The first is natural gas use in buildings which represents more than 5 percent of the state's carbon emissions. Switching to renewable electricity to heat and cool air and water in residential and commercial buildings is a critical and feasible strategy to reduce these emissions.

The plan should identify and emphasize the strategy as necessary for meeting the 2030 goal, and we support the Board resolution language as a step in that direction.

Another area is the design of cap and trade, which represents a significant part of the scoping plan. A recent study found that banked allowances through 2020 could potentially equal upwards of 30 to 40 percent of emission reductions for cap and trade between 2021 to 2030, threatening our ability to meet the State's 2030 goal.

We recommend CARB revisit the number of future allowances in the market to address this risk. My colleagues Jimmy O'Dea will provide comments on the transportation portion of the plan, and we've also

submitted additional comments to the record.

Once again, we thank you again for your leadership on climate change and we look forward to working with you and your staff to address these issues as the -- I'll just finish up -- to address these issues as the plan is implemented, and the regulatory processes advance in order to ensure that we have an effective pathway to meet 2030 goal, and California's goals of a low carbon economy, health and vibrant communities, and a clean environment.

Thanks.

CHAIR NICHOLS: Thank you.

BOARD MEMBER BALMES: So I just have to say. Nice testimony Jamesine, a former student.

(Laughter.)

MR. KARRAS: Greg Karras, Communities for a

Better Environment. We presented written testimony. You should have copies. We have a slide to present.

And for those of you who don't have copies, cbecal.org. It's on our home page. You can see our comments there.

Our best climate science tells us it's not too late to limit cumulative emissions through 2050 to societally sustainable limits, but it could be very soon. This frames a crucial question about the major change from

the draft plan, the last draft that de-prioritizes oil sector emission cuts through 2030.

What are the cumulative effects of that through mid-century?

These charts show an answer. They assume all non-petroleum emissions make steady progress to the State's targets. They use the State's data. Note the relationship between cumulative emissions in Chart A and annual emission cuts needed for climate protection in Chart B during the critical period through 2030.

As cumulative emissions approach the climate limit, and the time left to meet the limit shortens, the annual cuts needed to meet the limit rise nearly exponentially. Starting now, we meet the limit by cutting oil emissions less than 5 percent annually.

Starting in 2031, it gets 10 times harder, requiring cuts of more than 50 percent annually and nearly 80 percent over only 2 years.

The rising curve in chart B reveals the increasing difficulty environmental and social injustice, stranded assets, and jobs and tax base disruptions in oil-belt communities that further delay would cause. And that's if we can still meet the climate limit.

If further delay makes that too hard, the emissions above the red line in Chart A illustrate the

resultant climate protection failure. The environmental analysis, again released less than 2 weeks ago, should disclose this reasonable potential for significant impacts. Identifying the problem is the first step towards solving it. Solving it before further delay forecloses least impact less difficult solutions should be the priority.

Thank you.

CHAIR NICHOLS: Thank you.

MR. JEREMY SMITH: Good afternoon, Madam Chair, members of the Board, and staff. My name is Jeremy Smith. I'm here on behalf of the State Building and Construction Trades Council, a great council of construction unions that collectively represent 400,000 construction workers in California.

Many thousands of those work in the refineries.

They come in to the refineries to do heavy construction work during shut downs, turnarounds, represents over a 5-year period millions of man hours -- that's the term -- millions of worker hours of work for construction workers in California.

We'd like to thank you for removing the refinery measure from the scoping plan. It's going to go a long way towards ensuring that that work will continue. Those workers are highly skilled workers, and do a lot of work

in the refinery to make them more efficient, which we believe helps overall. And it's just important to remember the economic realities that go into what you discuss here in terms of jobs. Removing that measure does -- is going to help ensure that construction workers do continue to have work in the refineries.

We appreciate that. Thank you.

CHAIR NICHOLS: Thank you.

MR. MAGAVERN: Bill Magavern with the Coalition for Clean Air. There are 4 reasons why you should prioritize direct emission reductions over trading and offsets.

First, those direct measures are ones that have proven to be effective in reducing emissions. Second, they also very often will reduce air pollution, in addition to greenhouse gas emissions. Third, they avoid the hot spots and environmental justice problems that are sometimes caused by trading and by offsets. And fourth, the law says that you need to prioritize direct emission reductions, a law authored by Assembly Member Garcia.

In the transportation sector, which as we noted this morning, is the largest source of greenhouse gas emissions and a growing source of greenhouse gas emissions, there are a number of steps we need to take, which are addressed in your scoping plan.

In the freight sector, we need to move rapidly to zero emission technologies, and low carbon renewable fuels. For personal transportation, as we discussed, we need to make land-use changes to make transit and pedestrian and biking access more available for people. In fuels, we need to ramp up the Low Carbon Fuel Standard. And we think we can go higher than 18 percent by 2030.

And, of course, we need in cars to ramp up the zero-emission vehicle standard as you're planning to do, and we look forward to working with you and your staff on all those measures.

CHAIR NICHOLS: Thank you.

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MR. GAMBOA: Good afternoon. My name is John Gamboa. And I was the former founder of the Latino Issues Forum and co-founder of the Greenlining Institute and I was recently recruited out of retirement by some of our -- the State's greatest civil rights heroes, if you will, and champions Cruz Reynoso, Herman Gallegos, George Dean from the Urban League, and others on it.

The recruited me to -- for us to work on a new organization with one mission, and one mission was to try to close the growing wealth gap in our community that families of color are suffering from on it.

And we chose the same avenue that created the great white middle class and created so much wealth in our

country and that was access to home ownership on it.

I was -- I have to first laud the -- this is my first time in a hearing like -- in this hearing in this room. And I was really impressed with the quality of the presentations and the work that your staff has done. However, there is one area that I think you have created a new redlining on that, and that was access to affordable housing, the avenues that would let our community be able to buy homes and create the wealth that they would start joining the middle class.

That has a huge impact -- negative impact on it. When you get a -- you own a home, and you get into middle class, your children stay in school a little longer. They stay in school a little longer, they get a better job, they earn more, and their children then go to college, and that wealth starts accumulating in the community.

From 1930 to 1970, our community was red lined by all the government housing projects. 1970, we started closing the gap because the civil right laws and anti-discrimination on it. We are doing really in closing the gap in wealth and in home ownership until 2008. The Great Recession disproportionately affected our community. And we lost in 3 years what took 30 years of wealth to accumulate.

We're now starting to close that gap again. And

the -- that part of the scoping plan that you have is going to put us back again. It's a new form of redlining.

We ask you to take -- think back -- go back and look at what is the impact of some of these things that are going to do on poor people, and in particular access to home ownership.

Thank you.

CHAIR NICHOLS: Thank you, Mr. Gamboa. And we do have your written testimony also.

MS. HERNANDEZ: Thank you, Madam Chair. I'm Jennifer Hernandez. I have the privilege of working with Mr. Gamboa and with the other civil rights leaders in the group -- the 200. We did submit a comment letter yesterday, and noted that staff had responded to it in this morning's package.

The pieces of the scoping plan that we wanted to particularly ask that you delete, because they worsen the housing crisis and worsen poverty, and disproportionately impact working families of color are the CEQA expansions.

You have recommended a net zero threshold for projects. The only thing that applies to is new projects, new housing. I quote in the letter the findings of actually the San Francisco Chronicle, although they're repeated in lots of different studies, to build housing at the Oakland Coliseum Station right now, which everyone

thinks is a pretty great location, housing costs would result in -- for a 1000-foot apartment rents of \$4,500 a month.

When you match that to the income needed to qualify to pay that kind of rent, you need a household of \$170,000. Average income in Alameda County is less than \$80,000. Why is this such a big issue?

Because CEQA, the top target of CEQA statewide in two studies is infill housing. In the most recent study we did, this was of all CEQA lawsuits filed statewide, 100 percent of housing projects in the Bay Area were in infill locations. Ninety-eight percent of targeted housing projects in the South Coast region were in infill locations.

In the SCAG region, we mapped 70 percent of the challenged housing units, 14,000 housing units challenged in 3 years under CEQA, 70 percent of those were within one half mile of transit.

CHAIR NICHOLS: Finish you sentence.

MS. HERNANDEZ: Environmental justice community -- I just want to make one last point. The environmental justice community, EJ maps, guess what? Seventy-eight percent of the housing units challenged in the South Coast region were in whiter, wealthier, healthier parts of that region.

CEQA is used as a tool to keep poor people out of the affordable housing in wealthy neighborhoods. You should not recommend zero threshold, expand numeric criteria for climate action plans, which is a pathway through CEQA. You should not do vibrant communities and invite 8 State agencies to help local governments approve housing projects, my God. And you should not set VMT targets.

I do have a question. I'm completely confused, and I share the confusion of Ms. Nichols, and that is does the scoping plan include a VMT target or not?

I heard it did. I heard it didn't. The staff response is completely ambiguous. I don't know. We think it does. We've challenged it as though it does. Guess who's driving the farthest? People who can't afford to live near their jobs.

Think about the social equity of a VMT fee. Think about putting all of this through CEQA.

Thank you.

CHAIR NICHOLS: Thank you. I think we'll address that and other questions as we do the wrap-up at the end, and deal with the resolution, but appreciate you're flagging it.

I am confused once again, because I've been handed a piece of paper that doesn't seem to be

contiguous, but let's see where we are here.

EDF, Katelyn Sutter.

MS. ROEDNER SUTTER: Good afternoon. I'm Katelyn Roedner Sutter with the Environmental Defense Fund.

CHAIR NICHOLS: Great.

MS. ROEDNER SUTTER: Thank you very much for the opportunity to provide some quick comments. And I would also like to thank the staff for their years of work on this scoping plan.

EDF supports adoption of the scoping plan today. We look forward to continue to work with staff and the Board as they implement the extension of the Cap-and-Trade Program beyond 2020, so it can continue acting as the State's insurance policy to keep us on track to meet our ambitious climate targets.

There are many important issues to consider, including setting a price ceiling that is sufficiently high to ensure the environmental integrity of the program, and whether there is a chance to increase ambition by lowering the annual allowance budgets between 2021 and 2030.

I'd also like to thank the Environmental Justice Advisory Committee leadership for their presentation and their written priority recommendations. We agree that a more robust health analysis would be helpful to ensure we

are addressing disproportionate environmental burdens in low income neighborhoods and communities of color.

And we also support the recommendation that the adaptive management plan be finalized and implemented, and agree that the transportation sector should be a key focus of reduction efforts in order to benefit both resident's health and the climate.

We've also heard some discussion today and elsewhere about the implications of having California's emissions significantly below the cap. EDF does not see this as a threat, but as a sure sign of success. It's also an opportunity that gives Californian the option to cut emissions even more by trimming the overall number of allowances it makes available in the coming years as the State charts a path to an ambitious 2030 climate target.

So again, I'd like to thank all of the staff who have put countless hours into the scoping plan and voice EDF's support for the final product.

Thank you very much.

CHAIR NICHOLS: Thanks.

Deanna Martinez.

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MS. DEANNA MARTINEZ: Good afternoon. My name is Deanna Martinez. I actually work for Shell Oil.

CHAIR NICHOLS: Oh. Okay.

MS. DEANNA MARTINEZ: I work for Shell Oil in

Martinez as a Refinery Safety Leader. I'm here speaking on behalf of myself and all my co-workers that were not able to make it. I'd like to thank you for all your efforts in the scoping plan, and thank you for removing the refinery measures. I'd like to tell you a little bit about myself. I'm a third generation -- or a third generation refinery worker. I actually have 4 generations. My children actually work in the refinery.

This is how I provided for my children, my father provided for me, my grandfather has provided for my father. It's not just a job for me, it's a living. And I enjoy what I do.

Sorry.

I'm one of nearly thousands of people who work in the refinery, whose priorities are people and planet.

It's important to me, and my opinion matters in my job.

Thank you.

CHAIR NICHOLS: Thank you.

Brenda --

MS. KUEHNLE: I won't make you try to pronounce that. I'm Brenda Kuehnle, and I work for Chevron. And I just wanted to share a little bit. Refiner -- I'm a strategic planner at Chevron. So, you know, I, like you, look out to 2030 and say where are we going to be, what are we going to do?

Refineries are critical facilities that fuel plains, trains, and provide necessary services for -- or equipment -- the plastics that make our electric cars. They also fuel our economy. Oil and gas industry and businesses compete -- contribute more than \$8 billion to the local, State, and federal taxes, which help provide goods and services for a lot of people, not just the wealthy, but the poor as well.

The greenhouse gas regulation is a global issue -- is a global issue. It's a global pollutant, not a local pollutant. So it's critical that the work that we do here in California affect the globe, not just California, because to the extent that we push the emissions somewhere else, the global emissions haven't changed, and we could hurt the global environment, and hurt global warming.

So we support -- I support the cap and trade under the current scoping plan, because this will be good for business, help to promote the living wage jobs that are provided by refineries and the oil and gas industry, and also help meet achievable greenhouse gas goals that will reduce leakage into other states and other countries.

Thank you.

CHAIR NICHOLS: Thank you.

Mr. Yang.

MR. YANG: Good afternoon, Board members. My name is Steven Yang. I'm an environmental team lead at the Chevron Richmond Refinery and have been responsible for various areas of environmental compliance for more than 10 years.

While your role is to adopt sound policies and regulations, my role is to bring them into effect at our facility. In my years of experience, I have seen regulations that are smart, based on science, and at the same time realistic and effective. I feel good about implementing those, because the impact is appropriate for the time and resources I would be asking of my colleagues.

I have also seen regulations that are draconian, unrealistic, or have an insignificant impact on the program. These are the worst to implement, because the problem largely remains, and I would have required my colleagues to spend time and resources that could have otherwise been better spent maintaining equipment, operating efficiently and safely, or streamlining compliance with other regulations.

In light of this, I wanted to extend my support for the proposed scoping plan. The latest changes acknowledge several key facts about climate change.

Climate change is the result of total worldwide greenhouse gases.

Climate change is blind to the source of the greenhouse gases. Climate change is only meaningfully mitigated by net reductions in worldwide greenhouse gases.

As a result, the scoping plan before you now lays a framework to attain State greenhouse gas goals in a more cost effective way.

Thank you for the opportunity to comment.

CHAIR NICHOLS: Ms. Carter.

MS. CARTER: Hello. Good afternoon, Board members, Madam Chair. I am Akeele Carter and I am the local hire coordinator for the modernization project at the Chevron Richmond Refinery. The project is also referred to as the Renewal Project.

I am 2 of 4 generations that grew up in the City of Richmond. And I must say we're all healthy, we're all happy, and we're all thriving in Richmond, the City of Pride and Purpose.

The Renewal Project is not only ensuring a newer, safer, and cleaner refinery that is better for my community, this project has also created over 2,000 jobs within a 2-year time frame, which has caused a significant improvement to the quality of life for myself, my family, my community, and the northern region as a whole. Clearly, a huge investment in environmental standards, and most of all human energy.

Thank you to your staff for your work on this effort, revised draft -- a revised draft scoping plan.

And we support the removal of the refinery measure from the current draft.

Thank you.

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Ms. Immel.

Oh, I'm sorry, Mr. Wunder. Excuse me.

MR. WUNDER: Chair Nichols, members of the Board.

Thank you for your time today. My name is Andy Wunder.

I'm a manager of policy and partnerships in Ceres'

California Office.

Ceres is a non-profit advocating for sustainability leadership and we mobilize a network of 44 leading companies, including a number based in California. This network is called BICEP. I'm here on behalf of BICEP to commend ARB staff on developing a scoping plan that outlines a coherent policy path forward to achieving California's greenhouse gas goals.

In particular, BICEP supports inclusion of a post-2020 Cap-and-Trade Program. However, while we support adoption of the scoping plan in a timely manner, we believe it should be strengthened with more ambitious commitments.

We understand that upcoming regulatory proceedings will be the primary venue for addressing these

issues. However, the scoping plan is the State's primary climate program planning tool, and ARB must fully leverage this document to chart and adequate course to achieving our goals. Placing a strong stake in the ground is critical.

I will begin by making a few comments on areas we'd like to see improvements. Cap and trade allowance prices have remained low, and this may result in an oversupply of allowances in a post-2020 program. We believe that the scoping plan should commit the State to investigating and addressing this potential oversupply.

In transportation, the scoping plan should commit to pursuing a post-2025 Advanced Clean Cars program that calls for increasingly stringent greenhouse gas emission standards, and commits to emphasizing an emphasis -- increasing emphasis on the ZEV Program.

The scoping plan must also commit to strengthening the ZEV program compliance structure post-2025. BICEP is very supportive of an extension of Low Carbon Fuel Standard. However, we believe the 18 percent CI goal relies on overly pessimistic fuel supply assumptions. And the scoping plan should reflect the potential for a stronger CI goal in a future rulemaking proceeding.

BICEP also believes the scoping plan should

commit staff to identify strategies to minimize emissions from autonomous vehicles. And finally, the scoping plan should commit the State to additional analysis to determine a more ambitious target date for 100 percent ZEV sales.

In conclusion, we support the scoping plan -adoption of the scoping plan in a timely manner and ask
ARB to include these strengthened amendments. At a
minimum, the Board should direct staff to further analyze
these proposed commitments and report back to the Board
with a proposed path forward by a date certain.

Thank you for your time.

CHAIR NICHOLS: Great.

Ms. Immel.

MS. IMMEL: Good afternoon, Madam Chair, members. Excuse me. Melissa Immel with Shaw/Yoder/Antwih here on behalf of the Solid Waste Association. Thank you for the opportunity to comment today. In looking at the waste management portion of the scoping plan update, we'd like to thank you for the emphasis on source reduction. We would also like to see an increase in ongoing focus on extended producer responsibility policies, particularly for materials that are difficult, costly, and sometimes dangerous to manage in the waste stream.

As the State moves towards its ambitious goals,

such as the 75 percent diversion goal and the organics recycling goals identified in AB 1826 and SB 1383, we'd urge a strong focus on market development and a sustainable funding source for infrastructure expansion.

We're pleased to see the inclusion of the State's recycled content product procurement program as one method of supporting market development. And we'd like to see those standards go further. In light of the recent announcement from China that they will no longer accept many of our recyclables, we need to have conversations about the significant forthcoming impacts and what the will mean for waste management facilities throughout the State if there's nowhere to send their recyclable materials.

I recognize that much of this falls under CalRecycle's jurisdiction, but in light of your collaboration with CalRecycle on these policies, I'm raising them here today. So thank you so much, and we look forward to continuing these discussions in the coming months.

MR. DOUGLAS: Thank you. Chair Nichols, Vice Chair Berg, Members of the Board. I'm Steve Douglas with the Alliance of Automobile Manufacturers representing 12 of the world's leading cars companies. And we appreciate the staff's work on this and their willingness to engage

with all the stakeholders and specifically the mobile source strategy document that was -- it was published last year.

I'd just like to point out that the scoping plan, the strategy document is important, but it's not a roadmap. It's not a starting point. It's a -- it's a top-down analysis, where you start with the answer and then you work your way backwards. The standards, the regulations that ARB sets are based on a bottom-up analysis, where you start with where we are today or at some point in the future, and you build up requirements based on what's cost effective, technically feasible, taking into consideration the likely technology advancements, cost reductions, consumer acceptance.

And that's the way that the regulations are built. That's the way that ARB will adopt the standards for '26 through '34 for -- for vehicles. And that's what ARB's reputation is built on, a solid bottom-up analysis.

So just to be clear, when they -- there's talk in the scoping plan about 4.2 million ZEVs in 2030. That's not the staff's conclusions of what's technically feasible, what's cost effective. Instead, it just means that if the cars -- companies deliver the vehicles, if the State delivers on the complementary measures on incentives, infrastructure, low price, fuel, and the

customers respond based on that and buy 4 and a half million vehicles, then the State would meet its 2030 goals. So that's -- just to put a little perspective in it.

Thank you for your time.

MR. PIMENTEL: Madam Chair and Board members,
Michael Pimentel with the California Transit Association.
As you know we represent 80 transit operators in the
State, about 200 members in all representing things like
bus and rail car manufacturers.

So I'm here today to express that we are generally in support of this scoping plan. We've weighed in with comments over the various comment periods. But I would like to draw your attention to a few of our concerns that I think warrant further discussion. It may not be properly for this scoping plan, but certainly as staff preps for the next one, and measures are developed to fulfill the goals of the scoping plan.

So first, at our urging, previous versions of the plan had included language suggesting that ARB would take an active role in pursuing measures to stabilize transportation funding. That language has been removed from this final plan. And it's my guess that the removal was due to the passage of SB 1.

While we're grateful for the passage of that

bill, I think it needs to be said that California public transit agencies face a backlog of about \$50 billion just to bring us into a state of good repair.

By contrast SB 1 will provide just \$7 billion. So while it's a good investment, it's just an initial step toward where we need to be. And as we -- as we speak, SB 1 is threatened to be repealed. And so that I think needs to be put on everyone's radar is something that could ultimately undermine the goals that you're looking to achieve.

In sum, we think that the removal of this language was a mistake, and suggests that public transit agencies are well capitalized to undertake the State's ambitious goals, when, in fact, they're not quite yet.

Next, I will just remark that the plan is very much focused on making improvements to transportation technology. There's not much discussion around actually inciting mode shift. And I think that there needs to be greater emphasis in increasing the frequency and reliability of public transit. That takes dollars, so we shouldn't be focused solely on cleaner tech.

Thank you.

CHAIR NICHOLS: Thank you.

MS. GOLDEN: Hi. I'm Rachel Golden with the Sierra Club, speaking on behalf of more than 180,000

members in California.

We appreciate the careful work that CARB staff has put into the scoping plan, and we also appreciate staff and Board members willingness to meet with us to address our concerns over the last several months.

We also thank the EJAC for their tireless work and we support their recommendations.

Generally, the plan continues to move California in a direction that will reduce greenhouse gas emissions. We don't always agree with CARB or the Governor about the best tools to use, but we appreciate that the scoping plan lays out a range of strategies to reduce climate pollution.

One area that we believe is unemphasized in the scoping plan is the ability and the need to reduce climate pollution by shifting energy sources used in buildings particularly for gas appliances like water heaters and furnaces.

Decarbonizing California's over 13 million homes and buildings by cutting dependence on methane gas can profoundly reduce climate pollution. We know that Southern California Gas Company at regulatory filings at the PUC and the CEC have used this underemphasis in the draft scoping plan to argue that there is no need for those agencies to pursue or support building

electrification.

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State agencies must establish a comprehensive plan to transition homes and buildings away from fossil fuel dependence and toward electrification. While this call for a plan isn't directly stated in the scoping plan, we thank the staff and the Board for the resolution language that encourages key agencies to evaluate and pursue strategies that will ultimately increase electrification across all sectors.

We also believe the plan overstates the role of biomethane, particularly in building decarbonization. It is important that going forward regulators note that once biomethane is generated and injected into the pipeline, that its environmental and air quality impacts parallel those of traditional and conventional methane gas.

Leaks in this gas system can erode any climate benefits associated with biomethane as a fuel. Lastly, this is not the place to debate CEQA, but I just want to note that CEQA is not the reason for high housing prices. And in many cases, it is the reason for innovative -- that innovative and -- infill provides additional housing without additional pollution.

Thank you for your leadership.

CHAIR NICHOLS: Thank you.

MR. ADAM SMITH: Good afternoon, Chair Nichols

and members of the Board. My name is Adam Smith. I'm the manager of climate policy with Southern California Edison. The benefit of going 29th is that most people have said everything, so I'll try to keep it tight.

Southern California Edison supports the final plan and a well designed Cap-and-Trade Program to help the State achieve its post-2020 climate goals. I'd echo the comments of Mark from LADWP who I think was one of the first speakers we had today. In our sector, in the electric sector, the Cap-and-Trade Program, the instance of a carbon price has dramatically changed the way we dispatch electricity in this State and in the region.

And I would just suggest for those looking for examples of how cap-and-trade has really been a game changer, that's a very clear sterling one, even while allowance prices are, you know, potentially rather low.

So with that said, I would like to hop along and just point out that, you know, in the scoping plan, California's electric sector, you know, it has been leading the way, and it looks as though it will continue leading the way in GHG emission reductions from just a percentage basis.

If you look at the final scoping plan in many instances from that percentage basis, the electric sector will be further decarbonized than any of the other

sectors, in some instances doubling the decarbonization that will be occurring in those other sectors according to 1990 levels.

And what the does -- well, it's -- you know that historic effort, and like we say, we support this final scoping plan. But what I think it does is it positions the electric sector. And that historic helps put us in a place to decarbonize other sectors. And we align ourselves with the comments of Rachel.

Previously, I think staff included, you know, as a potential additional action, a public this process to establish building electrification targets. And I think that that should be changed from a possible potential action into something we just do in 2018.

You know, other areas where electrification can help - of course, we've heard it from a number of folks - transportation. I think that you see more and more models coming online, and you see the utilities really stepping up putting forward bold proposals on trying to -- you know, how we can help encourage more and more folks to adopt electrics vehicles.

So with that, I'd like to say, great, great work. Thank you, staff. Support the scoping plan. Thank you very much.

MR. KENNY: Hi. Good afternoon, Chair Nichols,

members of the board. I am Ryan Kenny with Clean Energy. We're the nation's largest provide of renewable natural gas transportation fuel. And we are here to also support the scoping plan as well. We have been part of the process since the beginning. But I do want to make a quick -- some quick comments as far as the future going forward with some of the measures that are included.

To get -- to truly meet California's climate and public health goals, we do think that there needs to be an increased focused on immediate reductions and in criteria air pollutants, and greenhouse gas emissions, NOx. And to do so is, of course, through heavy-duty vehicles and getting more low NOx trucks on the road.

A UC Riverside study came out last year that found that not only are low-NOx engines that meet a 0.02 NOx standard 90 percent cleaner, but they're also actually 99 percent cleaner. They're basically at a zero percent clean level relative to heavy-duty diesel vehicles.

And noticeably with the Mobile Source Strategy, we're very supportive of that document. But there is a pretty ambitious goal in there for 900,000 low-NOx trucks powered by renewable natural gas by the year 2031.

And there's a gap between that goal and what's actually allocated and incentivized through ARB. And, of course, that's a discussion for the next agenda item. But

as we look at these various measures, that's one of our concerns that's increasing the effectiveness of those programs through low-NOx trucks.

I'll also note, too, that through the SB 1383 measure, there is very little funding for incent -- incentivizing in-State production of biofuels. It's been in the governor's budget the last few years. We'd love to see ARB actually advocate and get that -- a certain level for production and infrastructure into the Governor's budget for next year. And for that, thank you for your time.

MR. MAGNANI: Good afternoon, Madam Chair and members. Bruce Magnani on behalf of Gerdau Steel, U.S. Borax, Rio Tinto Minerals, and California's Cement Manufacturers.

The first thing I want to do is let you know all of our clients support the draft scoping plan as being presented by staff today. And we want to thank you for the openness, the transparency that went into moving forward with this scoping plan building on a successful model.

With that, we look forward to working with both the staff who have done, I think, a great job in developing this plan and working with the Board members when necessary. So thank you very much.

MS. VANDERWARKER: Good afternoon. Amy Vanderwarker, California Environmental Justice Alliance. We thank the staff and Board for their work on both the scoping plan and the Board resolution. We support the priority recommendations from EJAC and appreciate their hard work over the past year.

Overall, we find that the scoping plan would benefit from a more clear articulation of how it will achieve the agency's mandate to ensure there are no disproportionate impacts on environmental justice communities when implementing climate change regulations and a more clear plan for how we are achieving our 2030 targets in terms of actual emission reductions.

Implementation of Mr. Garcia's AB 197 is critical to EJ communities, because it can lead directly to both GHG and co-pollutant improvements, achieving the win-win benefits we want and need, and our communities desperately need.

And because -- in addition, without a clear set of direct emission reduction measures as specified under AB 197, it is unclear if we can actually meet our 2030 targets as outlined in the scoping plan. We believe that AB 197 analysis in the scoping needs a more in-depth approach to implementation and a clear -- more clear set of next steps.

The list of broad programs outlined in the scoping plan and outlined in the staff presentation are not actually prioritized in terms of their direct emission reductions, as required by AB 197. There are broad programs. There's many measures within those programs that should be more deeply analyzed. And there's also some concerns about the underlying data.

For example, recent data from the California Public Utilities Commission shows that as we comply with SB 350 and our renewable portfolio standard co-pollutants will actually increase. And that's not reflected in the scoping plan analysis.

It's also incredibly important that CARB clarify that cap and trade is not a direct emission reduction. It is a trading -- it is a market-based solution. It is a trading program. It is moving forward, but it is not and should be not considered in compliance with AB 197.

And similarly AB 617, while we are excited for and will be working with CARB to ensure that it does lead to criteria and toxic improvements in our communities. It will actually -- it is also not a direct emission reduction for greenhouse gas emissions.

One last thing of particular importance to both California EJ communities is California's overall ability -- and Californians overall ability to meet our

greenhouse gas reduction goals is to start working towards a decline in oil and gas production and extraction in our State.

That's critical for our front-line communities as Mari Rose outlined this morning, and also our ability to meet and uphold our climate leadership. We hope to see action from the Board on these issues today and thank you for all your hard work.

MR. WEISKOPF: Hi. I'm David Weiskopf. I'm climate policy director with Next Gen California. Thank you, Chair Nichols and Board. We're speaking in support of the scoping plan and offer a few friendly suggestions.

With regard to the Cap-and-Trade Program, as has been state by others, we are, of course, asking quite a lot of this program. We hope that the Board will evaluate how the program will achieve these reductions and take into account not just what ceiling price and the number of allowances available at auction, but also how banking rules and other aspects of the program will need to align with the level of ambition that we are setting for the Cap-and-Trade Program component of the scoping plan.

We'd also like to thank you for in the scoping plan identifying an increase to the ambition of the Low Carbon Fuel Standard. We share the views of BICEP and others who have commented today. The higher levels of

ambition within the Low Carbon Fuel Standard are feasible and available, and should be fully evaluated.

We'd also like to point out that the supply side of the fossil fuel industry should be further evaluated. Entities around the world, including major pension funds and the World Bank have found that further investments in fossil fuel production are no longer consistent with the climate pathway consistent with the Under 2 memorandum or the Paris climate agreement, the 2 degree limit on global warming that we're all working to stay within.

We'd ask that the Board evaluate how best the State of California can work to align its fossil fuel supply site policies and actions with our ambitious plans to reduce demand for fossil fuels in our economy.

Lastly, we'd like to request that you identify and seat members of the emission -- excuse me of the Emissions Market Advisory Committee as early as possible to help to advise on the drafting of future regulations to implement the scoping plan.

Thank you.

MR. SHAH: Greetings. Perin Shah with APEN,
Asian Pacific Environmental Network, long-term observer,
first-time commentator.

APEN has a membership base of 800 individuals, refugee and immigrant from API communities living in the

Bay Area. And we are also a member of CEJA, the California Environmental Justice Alliance and would align our comments with theirs, as well as with EJAC's.

I'll focus my comments primarily on cap and trade. The scoping -- quite sort of quickly and bluntly. The scoping plan analysis of cap and trade as a program is insufficient. We're very concerned that the current cap and trade structure could allow -- as others have said, could allow California to meet its goals on paper, while actually emissions could be exceeded in terms of the 2030 target.

The Cap-and-Trade Program, while being quite telegenic as an idea is not the way that the State has historically reduced our emissions. We've done that through direct reductions as well as programs, like the LCFS. And I would echo what Amy from CEJA said, cap and trade is not a direct emission measure and should not be named as a way to meet 197 requirements.

The two specific points that I'd like to make are just, one, the scoping plan does not specifically demonstrate how the program achieves the outlined emission reductions in post-2020 era cap and trade. And there's no real explanation of how that is to happen.

And Mr. Garcia's AB 197 requires that we identify direct emission reduction measures, and we'd encourage the

staff to please do that.

The second point is just that we agree with other folks' statements on overallocation and are deeply concerned about the impact of climate change on EJ communities.

Thank you.

CHAIR NICHOLS: Michelle.

MS. PASSERO: Good afternoon. It's Michelle Passero, the Nature Conservancy. Thank you for the time to speak. And I'm also speaking on behalf of the Pacific Forest Trust and California Relief. We'd like to first voice strong support for the proposed scoping plan and the suite of measures that are included in that plan to meet 2030 goals, including the Cap-and-Trade Program.

We also support concurrent efforts to improve air quality. This may go without saying, but a subnational action is critical at this point in time. And it's very inspiring to see California continue leading that charge.

I'd be remiss if I didn't mention the natural and working lands section. And I want to thank ARB and staff for including a section and recognizing the value of natural and working lands to help the State meet its 2030 and longer term climate commitments. And also, in the proposed resolution, we appreciate the commitment to revisiting the goal looking at new science and data that's

coming in by September. We think that's really important.

And we do agree with staff, as I mentioned earlier, that we can't ignore the sector. Nature Conservancy just conducted analysis. It was published in the proceedings of the National Academy of Sciences finding that the lands sector and different management and restoration activities can contribute significantly to California's greenhouse gas reduction goals for 2030 and beyond.

It presents an opportunity to accelerate progress on climate change, while also achieving many other critical benefits both for urban and rural communities.

So thank you. We offer our assistance and look forward to working with you on the implementation of this plan, as well as the natural and working lands sector.

MS. CORY: Good afternoon, Chairwoman and members. Cynthia Cory, California Farm Bureau. It wasn't even planned that I was going to follow Michelle. That just happened.

(Laughter.)

MS. CORY: I'm also going to just speak very briefly about the Natural and Working Lands Section of the scoping plan. One of the things I want us to remember is that when we're talking about natural and working lands, it's not a term that really is used outside of this room

very much, but it's desert, and it's oceans, and it's farms, and it's wetlands. It's a lot of stuff, and they're all living ecosystems.

And so we -- I -- while we've got a 15 to 20 million metric ton target, I want to -- I think we should start there. We don't have our inventory yet. We don't even have the methodology and quantification in many cases to go with the activities that we hoped to do. I've spent a lot of time the last several years working with NRCS, and ARB staff, and Edie and her group, and CDFA to try to help quantify the healthy soils, which I -- which we support and we think that's the way to go.

I wasted -- not -- I don't -- you know, offsets are hard for agriculture. So I don't want to say I wasted my time, but I learned a lot, and I really think that that's the way to go, but I want to do it cautiously and I want to do it right. And I know that they have to be reductions. But when we get them, I want them to be attributed to agriculture as part of the natural and working lands. And I think there's a lot of potential there, but let's start and do it right.

Having said that, I want to say that I'm very committed, the Farm Bureau is very committed to working with Shelby. We look forward to her that she's made full circle. She started many years ago in ag and she's come

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1 back --2 (Laughter.) 3 MS. CORY: -- to the good place, and the fun 4 people. 5 And lastly, I want to than Veronica Eady who flew 6 all the away down last week and joined 700 to 800 of my 7 members at our annual meeting. And earlier in the year, I 8 was talking to them about environmental justice. 9 they'd go -- and you're not going to believe this. It was 10 not like what is it, but it was like what is it? 11 And I just -- it's really important in our lives. 12 And Veronica came down to help explain it. We had a 13 packed room. We had a good discussion. I was afraid it 14 was going to get real tense, but I think it worked out. 15 And --16 (Laughter.) 17 MS. CORY: -- we are committed to working with 18 San Bernardino and Riverside on some community gardens as 19 our first step. So we're trying to build bridges and look 20 forward to working with you. 21 CHAIR NICHOLS: Thank you. MR. NOWICKI: Good afternoon. Brian Nowicki, 22 23 Center for Biological Diversity.

It's a nationwide non-profit environmental organization. The Center for Biological Diversity

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supports the recommendations of the EJAC and the call to focus on direct reductions.

It's not in the current scoping plan, but I see in the resolution that there's going to be an increased focus on supply-side and energy production. I'm hoping for clarity in that what that might turn out to be later in this -- later in this hearing today. And, of course, the Center for Biological Diversity very interested in seeing that move forward and helping in any way to broaden the number of measures and the things we're looking at through the oil and gas sector in particular.

I agree we can and should be getting more greenhouse grass reductions from forest conservation agricultural practices. As you saw from our comments regarding the nat -- to the -- two of the Natural and Working Lands Implementation Group, there are serious problems with the CALAND model that are going to need to be addressed. Before it can provide specific measures, and due to the things that when I read the scoping plan that it says it's going to do.

And lastly, as noted by previous speakers, Center for Biological Diversity believes there is a critical need here for clarity in the structure of cap and trade, and the source and size of expected reductions from there, specifically clarity that a surplus of excess credits

before 2020 do not undermine actual reductions after 2020, and that reductions from hypothetical baselines today in the surplus credits that those are generating do not distract from the emissions inventory as the ultimate standard and goal in the second half of our program, or in the post-2020 part of our program.

Thank you very much.

CHAIR NICHOLS: Thank you.

MS. O'BRIEN: Good afternoon, Chairman Nichols, members of the Board. Rachael O'Brien with Agricultural Council of California.

I wanted to start off thanking your staff. You have the best staff in the world. It was a pleasure to work with them for the last 2 years on this process. It's a tremendous evolution and effort that you guys have undertaken, and congratulations in getting it to this point.

You know, I don't want to go in and reiterate all the things that Cynthia pointed to. Just highlighting again going forward, inventory into natural and working lands will be vital. Better quantification around practices and measures that can implement. Some of the goals we want to achieve, you know, we're happy to see the requirements from AB 398 incorporated into this plan. We do want to make sure that you guys watch the costs that

are associated with the prescriptive measures as they focus in on the agricultural sector.

Those costs are laid out in the scoping plan as being higher than most other sectors. So it will be important for us to watch those net cost increases.

Also want to point out that we'll need to continue to work together to achieve these goals and the Agricultural Council is there to do that work with you.

And a couple last points. Just wanted to touch upon, I think it needs to be said, the tremendous investment that was made into agriculture this year through the Cap-and-Trade Program, and the greenhouse gas auctions. That's, you know, a first step. We'd love to see continued investment into our sector to help us get to these goals. And offsets will also play -- play a role going forward.

So thank you. Bye.

CHAIR NICHOLS: Thank you.

MS. MMAGU: Good afternoon, Chairwoman and members of the Board. Amy Mmagu on behalf of the California Chamber of Commerce.

As with being number 40, most things have been said. We just want to say thank you to the Board, staff, for all of your hard work these past few years on the scoping plan. We're generally very supportive of the

measures that you've included. We appreciate the inclusion of the AB 398 measures, and we look forward to working with you in the future on the regulations that come out of this.

Thank you.

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CHAIR NICHOLS: Thank you.

MR. LIN: Members of the Board, Roger Lin. I'm an attorney with the Center on Race, Poverty and the environment, which is also a member organization of the California Environmental Justice Alliance.

I want to talk about one serious shortcoming of the scoping plan. As you've heard, the scoping plan fails to comply with the mandate in AB 197 to prioritize direct emission reductions. Consequently, this results in significant impacts to environmental justice communities that the scoping plan also fails to address.

Two things about Assembly Bill 197. First, it specifically requires the ARB to detail how you will provide prioritize emission reductions and to do so in the scoping plan. The scoping plan does include emission reduction methods, such as increasing renewables or efficiency measures, or even cap and trade. But I want stress again, these are not direct emission reduction measures.

Especially with cap and trade, which I will get

to and talk about in a second. But the other proposed controls are indirect at best. If you're going to regulate oil production, don't try and indirectly do so through SB 350 compliance.

And recall AB 197 is a clear mandate, a clear mandate that has not been repealed by any more recent legislation.

Second, by adopting 197 as part of the State's Climate Policy, the legislature was clear, because of the problems with cap and trade, offsets offsites, or trading creating hot spots, we need something to eliminate that local program that is not controlled by the market system. This climate gap is well documented and it shows clear significant public health risks near large industrial facilities, like cement plants, oil and gas production facilities, and also refineries. But there is no quantification, discussion, disclosure, let alone prioritization of how to solve the significant impacts on low income people of color.

The Board must take steps to comply with AB 197's mandate and properly consider environmental justice. So we respectfully request the Board, consistent with the recommendations from the EJAC, to create a list with public input of potential direct emission reduction measures, and prioritize them with a schedule for

implementation in order to comply with Assembly Bill 197.

CHAIR NICHOLS: Thank you.

MR. LIN: Thanks for your time.

CHAIR NICHOLS: All right. We are on to page 3.

MS. TSAI: Hi.

as they will continue to be.

CHAIR NICHOLS: Hi, Stephanie.

MS. TSAI: Hi. Good afternoon. Stephanie Tsai with the California Environmental Justice Alliance.
You've heard from my colleagues and our members, we agree with the EJAC recommendations. And as you've heard many times before, you know that our communities and low income communities and communities of color across the state are already being impacted first and worst by climate change,

I'll focus my comments on AB 617, particularly the scoping plan relies a little bit too heavily on 617. You know, we're very hopeful and see a lot of potential with that and looking forward to working closely on that implementation.

But there are a few keys things that are beyond the scope of 617, and that really, you know, belong in the scoping plan. First is that 617 will not analyze or assess whether greenhouse gas regulations, such as cap and trade and the other measures, are disproportionately impacting low income communities. It will not look at the

relationship between these climate regulations and how they're impacting air quality.

And in preparing to do this, CARB is not complying with the clear directive in AB 398 to ensure that activities undertaken and comply with the regulations do not disproportionately affect low income communities.

So we appreciate the part of the resolution to, you know, have CARB collaborate with OEHHA on updating the reporting on impacts in disadvantaged communities. We really need to see some specific dates and deadlines to have a timeline on that.

And I would -- I'll just conclude by saying that overall we do want to see that analysis, as I've said. We have -- you know, because we don't see that analysis in the scoping plan, it leads to some uncertainty about how and whether it will actually lead us to meeting our 2030 targets

And one other thing that I want to highlight is that as we move forward, you know, approving the scoping plan -- as we move forward with our State's response to climate change, we must prioritize impacted workers, and communities with a plan to justly transition to a clean, renewable, and sustainable future, and an economy that will not cause harm or shift burdens from one group to another.

1 Thank you.

CHAIR NICHOLS: Okay.

Ms. Roberts.

MS. ROBERTS: Good afternoon, Madam Chair and Members of the Board. I'm Tiffany Roberts from Western States Petroleum Association. You and ARB staff have worked diligently to revive where we're at today. Staff's analysis demonstrates that the plan does include one of the most cost effective approaches to the State's climate policy.

As we've stated before, California is less than one percent of the world's greenhouse gas emissions, so if the State hopes to continue to be a leader, it's imperative to have a plan in place that balances environmental integrity and economic vitality.

We would note that the LCFS is still problematic, but directionally this scoping plan represents a step in the right direction, and we look forward to working with you and your staff on the implementation of the 398.

Thank you.

CHAIR NICHOLS: Thank you.

MR. LARREA: Good afternoon. John Larrea with the California League of Food Producers.

First of all, I'd like to echo all of the compliments that have been paid to both the Board and the

staff for the work that they've done this year. You guys have really slogged through it, and we are really appreciative of all the efforts. And we hope to continue to work with you on this.

That said, I'd also like to wish everybody a Happy Holiday, because it has been a long year, and I am looking forward to the end of the year. So I hope you all enjoy it too.

That said, I just want to say there's only two things I want to talk about, one is uncertainty; and two is increased focus on R&D for cap and trade subject facilities.

As you know, we are the fallback for all of the complementary measures that don't meet their goals in terms of emissions reductions. And so being that, I would suggest that you try to make us as strong as possible and get us prepared as possible for when we reset 2020, and we start to move in that direction.

We need to be strengthened. We need to have the ability to be able to count on the State to back us in terms of both new technologies, investments, and other areas in which we can then meet those goals, and take up that extra slack in case there is any.

Secondly on the uncertainty, I would just urge staff and board to try to resolve all the uncertainty

associated with the third compliance period, as well as the incorporation of 398 issues into this current regulation.

We want to get that done as quickly as possible. A lot of our members, 21 of which of the League's members are subject to the cap and trade are already planning for the future. And we need that uncertainty gone, so that we can make decent decisions on how best to meet the obligations as they go forward. They are not going to get any cheaper, and they are not going to get any easier. So the faster we can get this done and locked in, the better it's going to be for all of us.

So thank you very much.

CHAIR NICHOLS: Thank you.

MR. SHAW: Thank you, Madam Chair and members of the Board. Michael Shaw with the California Manufacturers and Technology Association. I think Mr. Larrea said much of what I intended to say. And being number 45 on the list, much else has already been said as well.

But I do commend the staff for the hours, and days, and months of work, years of work that they put into this issue as well. I would like to thank, and particularly the inclusion of the -- in the resolution of discussion on the cap-and-trade amendments relevant to AB 398 to be completed by the end of 2018.

We believe that that's very important, obviously, for planning purposes and for on the industry side, either that manufacturers making investments want to know what they're going to have to comply with, what they're going to have available to them.

And we believe that consistent with AB 398 that doing so will help provide some greater certainty, price, stability, revenue stability for the State as well, but equally important is the economic impacts, knowing what the companies are going to face are going to help them plan for that future to ensure that they can continue to be viable in the State of California; to maintain the jobs that they have; and, hopefully grow additional jobs too.

Thank you.

CHAIR NICHOLS: Great.

MR. O'DEA: Good afternoon. Jimmy O'Dea, Union of Concerned Scientists. First, I just want to thank you for leading us through this process.

And my first comment, I want to recognize the EJAC Committee. By far, the best presentation, most important presentation of the day. Regarding transportation, I want to voice our support for the scoping plan's commitment to long-term widespread electrification of the transportation sector.

A couple areas of the scoping plan we think could

be improved and we hope ARB addresses in future measures.
First, Low Carbon Fuel Standard, we strongly support this
measure, including its role in transportation
electrification. But we think the standard can be
stronger, 20 percent or higher. We have analysis that
will come out in the near future giving details about

that. And we'll certainly share that with you.

Second, we hope the Board can develop a commitment to zero-emission drayage trucks. The technology in Class 8 trucks has improved at such a rapid pace. Just in the last 4 months, 4 companies have unveiled Class 8 drayage trucks with ranges of 100, 200, 300, and Tesla 500-miles of range. This is quite impressive.

Just yesterday, a start-up of just 18 people unveiled a 300-mile Class 8 electric truck. And if a start-up that small can do it, it really shows where the technology is at. So we hope the Board will consider a zero emission drayage truck measured in the future to address the pollution of that these trucks are emitting at the ports and beyond.

Thank you.

MS. BERLIN: Good afternoon, Chair Nichols, members of the Board. My name is Susie Berlin. I'm representing the Northern California Power Agency and MSR

Public Power. MSR and NCPA are joint powers agencies that have a publicly owned electric distribution utilities.

I'm going to echo the support and the positive comments that you've heard today regarding staff's work on this scoping plan, and NCPA and MSR.

We support the current draft of scoping plan and support, especially the inclusion of the Cap-and-Trade Program, and ask that the Board approve the update today.

NCPA and MSR echo the comments of LADWP and SCE, and note that the Cap-and-Trade Program plays a crucial part in ensuring real and cost-effective emissions reductions, while enabling utilities to invest in either -- even greater measures to reduce emissions and protect utility ratepayers from unnecessary rate impacts. The revised scoping plan update is a product of a robust stakeholder process, and reflects significant investment of resources by both staff and stakeholders.

And it presents a plan that clearly sets forth a comprehensive framework for achieving the State's climate objectives, including proposals for achieving specified emissions reductions.

NCPA and MSR urge the Board to approve the update today and put into action the elements described therein. Stakeholders have noted that this scoping plan could include other provisions or provide different assessments

or alternative pathways. However, delaying the current plan pending review of an infinite range of options does nothing to provide the certainly that California's residents and businesses need to move forward with the State's aggressive climate objectives, a sentiment that you just heard echoed by Mr. Larrea and the last speaker.

We appreciate and support the direction of the staff in the draft resolution regarding further assessment of electrification of the building sector. And as part of that effort, we ask that the impacts of expanded electrification across all segments of the economy be taken into account while also looking at the impacts on the electricity sector, and on electricity customers.

Again, we thank you for all the work that staff has put into this and urge adoption of the scoping plan today.

MR. CARMICHAEL: Good afternoon, members of the Board. Tim Carmichael with Sempra Energy Utilities, better know by most as San Diego Gas and Electric and Southern California Gas Company. We are here to support the scoping plan and appreciate all the efforts of the staff and Board over the last year plus.

A couple of specific comments. We continue to see the Short-Lived Climate Pollutant Plan as one of the key strategies of the scoping plan, and believe that

increased use and product -- increased production and use of renewable gases are going to be critical to the success of that Short-Lived Climate Pollutant Plan.

We were disappointed that together we didn't make more progress on renewable gas in 2017, not just ARB but all the State agencies and businesses that we work with. That said, we remain enthusiastic about the potential for renewable gas, and committed to working with State agencies and businesses to develop a sustainable industry around this wonder -- this fuel.

Looking forward, we believe a renewable gas procurement requirement is a key strategy that we don't yet have in our arsenal, and we should. And we look forward to working with the State to make that happen.

Two requested clarifications for your adopting resolution. There's a bullet about building electrification, which we think would be clear if it -- we added a phrase or you added a phrase that noted the need to consider costs in looking at that strategy. That's consistent with several other bullets in your adopting resolution and we encourage you to make that change.

Similarly, with one of the last bullets in the adopting resolution where you talk about posting metrics for your transportation program, we support that and just would ask for a clarification that that includes your

clean transportation incentive programs.

With that, thank you very much, and Happy Holidays to all of you.

CHAIR NICHOLS: Thanks, same to you.

MS. DARLINGTON: Good afternoon. As speaker number 50, I have some exciting news for you. I'm going to talk about something that no one else has.

(Laughter.)

MS. DARLINGTON: So I'd like to -- I'm here with the Placer County Air Pollution Control District, and we would like to bring your attention to the issue of wildfire and how it affects air emissions. In your land -- you land section, you have an ambitious goal of 15 to 20 million metric tons reduction which we applaud the addition of that -- that goal. But you did remove the Interagency Working Group on Biomass from your last edition of the scoping plan to this edition.

We understand from conversations with staff that there's a heavy reliance by this Board on the Forest Carbon Action Plan, and that that will really drive policy in this area. While that plan will likely have some great ideas, there are a lot of issues relating to biomass from the ag sector and the urban wood sector.

We need a comprehensive biomass policy plan for the entire State. That way we can address the issues

relating to methane emissions from the decomposition of wood. We have a 129 million dead trees in California.

That number was just updated last week by the U.S. Forest Service. This is an air issue. This is an air issue because waste wood burns and in open piles and it decomposes. And it needs to find alternative paths that we can use to help reduce air impacts.

Other issues, just to point out quickly in your land section, land conversion isn't just happening from subdivisions. It's happening from wildfire, and it's happening today. And it's turing land into moonscapes. This is an issue that we should reflect in the land conversion section.

Also, the technical assistance that was offered to local governments and nonprofits to figure out how to do carbon sequestration in the land section was removed. We hope that that finds its way back into some other sections of work product.

Finally, we do agree with Center for Biological Diversity that we do need to see a higher resolution of CALAND modeling. It needs more data and a higher resolution.

And then finally, we're really enthusiastic about staff's ideas to look at wood products like bioplastics and biopharmaceuticals, but we need the interim gap of

electricity in biofuels to get us to that next step. We need to keep that in mind, okay?

Thank you so much for your time today. Happy Holidays.

CHAIR NICHOLS: Thank you.

MR. DONOVAN: Dear, Board members --

(Laughter.)

MR. DONOVAN: -- nearly 10 years ago in this very room with some of the same people, the Board approved the first scoping plan, which set the State on a path to reduce emissions and grow the economy at the same time.

But I don't think the goal of this scoping plan or these policies was to actually solve climate change, because California can't do that alone. We represent only 1 percent of global emissions. Rather it was to show that it can be done. That we can reduce emissions and grow the economy at the same time. It's not an either/or zero sum situation.

And we've had success. Cap-and-Trade Program has been linked to other jurisdictions, and folks from around the world come to this building to learn how to replicate the climate policies.

As we move forward, it's important to continue and expand this international climate collaboration.

Especially while the Trump Administration is building

1 walls, we should build bridges. 2 I want to give a special shout out to JZ, Jacob 3 Zielkiewicz, and all the other CARB staff --4 (Laughter.) 5 MR. DONOVAN: -- who have been working for years 6 on the scoping plan. I'm Sean Donovan representing the 7 International Emissions Trading Association, and this is 8 my testimony. 9 (Laughter.) 10 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF 11 So just as Dr. Balmes did, I am going to SAHOTA: 12 responsibility for that testimony, because Sean is one of 13 my former staff. 14 (Laughter.) 15 CHAIR NICHOLS: I believe he also worked for me 16 at one point. 17 (Laughter.) CHAIR NICHOLS: No doubt that's where he learned 18 19 the dramatic presentation. 20 It was very good. 21 Thank you. 22 Phoebe Seaton, back again. 23 MS. SEATON: Phoebe Seaton, Leadership Counsel 24 for Justice and Accountability, also a member of CEJA and 25 align our comments with CEJA and other members of CEJA.

Want to speak specifically around kind of the -one of the flavors of today disproportionate impacts on
disadvantaged communities and communities of color.
Especially with respect to transition to alternative
fuels, we are concerned with the reliance on biofuels and
combustion for electricity, as we've raised at other
times. The extent to which we're addressing climate by
combustion and creating increased air impacts in already
disproportionately impacted air basins is a problem.

Today, my colleague is at a permitting hearing for a dairy digester with a showing of finding in the Negative Dec of no significant air impacts, because of the air impacts, despite the NOx, PM2.5, and ammonia emissions from that facility. Cumulatively, there's no analysis of what the -- these facilities will have on a cumulative basis Throughout the San Joaquin valley and possibly other impacted air basins.

And so I urge, ask, as CARB is looking more to these facilities, that we ensure that there are no negative impacts on already disproportionately impacted communities and we assess their cumulative imapcts and do not address our climate impacts by increasing our pollution in our already impacted communities.

Thanks so much.

MS. HOLMES-GEN: Chair Nichols and members,

Bonnie Holmes-Gen with the American Lung Association in California.

I'm here to offer our support for the adoption today of the 2030 scoping plan, and our recommendations for strengthening climate protection efforts, and building in stronger targets, more ambitious goals as we move forward. We're very proud of California's leadership, which is vital to expanding climate protection across the globe and bringing tremendous health benefits. And we are pleased this plan includes a strong multi-pollutant focus. And this focus will get stronger as we implement AB 617.

And I wanted to share 3 main comments on the plan today. Number 1, we urge you to move forward rapidly to complete a comprehensive health evaluation, including a broader analysis than could be included in the plan that's before -- excuse me -- before you today, and to give clearer direction about a process to make this broader evaluation happen.

We appreciate the language in the resolution.

Appreciate the leadership of Dr. Balmes and several Board members who have highlighted the importance of this health evaluation. And the commitments that are in the resolution today are important to begin this deeper discussion that I understand will begin in January in concert with other State health agencies.

And we also recommend coordination with local health departments. And it's important to just keep discussing how we can conduct this broader analysis, broader look of the whole package of scoping plan measures, in addition to incorporating health review into the individual programs as we move forward.

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Secondly, we urge you to strengthen the clean transportation and SB 375 components of the plan. We discussed 375 this morning. But just say that we need --we would like to push for deeper reductions, both with more -- with more focus on electrification in both heavy-and light-duty sectors, increased VMT reduction and higher carbon intensity reduction targets for the Low Carbon Fuel Standard to go beyond the 20 percent reduction in carbon intensity.

We do support the Environmental Justice Committee recommendations.

And just one small request. In the spirit of consistent messaging, we love the graphic, but it would be really great if you could have put some healthy lungs or include some health language, health goals in our 2030 vision message here, which is -- it's a wonderful communication tool, but let's add some health into it.

CHAIR NICHOLS: Thank you.

MR. WAGNER: Hi. Emanuel Wagner with the

California Hydrogen Business Council. Thank you so much to the staff for all the work that they've put into the scoping plan.

The CHBC supports the scoping plan, and we very much appreciate the inclusion of renewable gas and renewable hydrogen in the plan. The Legislature in SB 1383 directed the Air Board to develop policies and programs that will reduce short-lived climate pollutants, and, among other things, increase the potential for new innovation in technology, energy, and resource management policies and practices.

Now, more specifically, under the new Short-Lived Climate Pollutant Policy, the legislature gave ARB the authority to establish energy infrastructure development and procurement policies.

The CHBC strongly supported SB 1383, because of this renewable gas section. We believe that this would be a signal from the Legislature to -- and the Executive Branch, and it would lead to meaningful policy to develop renewable gas infrastructure, and production in-state from electrolytic hydrogen, biomethane, and food waste conversion to gas projects.

The Air Board has the authority to develop policies to support new energy infrastructure, and also pursue procurement policies. So we respectfully request

that you include in the scoping plan, an emphasis and a direction to staff to begin developing supportive programs.

For example, the ARB can begin proceeding to allow gas utilities to set goals to purchase renewable gas. Also, consider the expanding -- expansion of the LCFS to gas systems and create a carbon intensity for the fuel and gas that is in those systems in the State, and consider hydrogen-only pipelines.

We've provided written comments. There's more detail in there. I thank you for your consideration, and we hope to work with you in 2018.

Thank you.

MR. SKVARLA: Good afternoon, Chair and members. Mik Skvarla here on behalf of the California Council for Environmental and Economic Balance. We're here to support the scoping plan today. It's reflective of a delicate balance of legislation and regulation that have been developed over the past decade. All of these regulatory and legislative pathways have had compromises within them, strenuous debate, and a back and forth that I think we've reached a balance on in this proposal.

You've seen a lot of industry and electric sector folks come up and express their support. Don't take that support as something to be considered light or overly

enthusiastic. This is a commitment of billions of dollars of compliance costs over the next decade more.

We have all debated and negotiated this over time. And we think that this path is good for California and it's good for the climate. And ultimately at the end of the day, we are taking on something that our neighbor states are not doing. We're taking on stuff that a lot of foreign jurisdictions do not have. And we want these industries, and these jobs, and this economic production to thrive in this state under this plan.

And to that end, we think that staff has done a tremendous job at balancing all of the parties in the room and coming up with a plan that will shape and form the regulatory paths as we continue down towards the 2030 goal set by SB 32. And we continue to look forward to work with staff and the Air Board on developing these policies and the sister agencies as we move forward toward that path.

Thank you.

MR. LOVE: Hello. I applaud staff and the Board for your service and commitment to the community. The air in Southern California has improved remarkably since the 1980s when I first moved there. I also commit your work to work with The EJ communities in your scoping plan, and your goals to transform California to a clean energy

economy.

This is already happening. California is leading the country in the manufacture of clean transportation technologies. Massive improvements in batter electric bus technologies, hydrogen fuel cells, and battery electric -- hydrogen fuel cell battery electric buses, and also advancements in renewable natural gas combined with the Cummins near-zero engine as well.

California can lead the world in the green transportation revolution that takes a holistic approach to the lifecycle emissions of the fuels. I agree with Sean Donovan's comments that what has been done by the AB 32 and the -- by the leadership of the Air Resources Board, is transforming not only California, but it has the potential to transform the rest of the country.

And it's because of your leadership and your commitment to clean technologies, and we applaud that. Renewable natural gas, we understand is a very potent greenhouse gas. And removing one ton of methane is equivalent to removing 20 tons, 70 ton -- or 70 tons, depending on what period of time you look at.

And so under SB 1383, California has an opportunity to transform the dairy industry, which is a \$20 billion industry. It's the number 1 ag industry in the State. And by capturing the emissions from that, it

can clean up the environment and the community.

So anyway, I -- my time is up. I applaud you, and thank you very much for your work.

Thank you.

CHAIR NICHOLS: Thank you for your comments.

Mr. Friedman. The first shall be last -- actually, the second shall be last. We're sorry we missed you the first time around.

MS. FRIEDMAN: I didn't realize I was going to be so -- I was here late. Anyway, thank you, Madam Chair and Board members. Randall Friedman on behalf of Department of Defense installations in California.

The military and California have enjoyed a tremendous partnership on a wide range of subjects covered in the scoping plan, including renewable energy, biofuels, energy management, and our most recent large EV deployment.

Today, 205 Ford Focus EVs are in use at 10 Navy and Marine Corps installations complete with charging infrastructure. Aside from replacement to fossil fuel vehicles, these EVs are seen across California cities like Lemoore, Barstow, Monterey Oceanside, Seal Beach, and of course the San Diego metro area.

While it is too early for full metrics, the EVs have met with good acceptance. In fact, Monterey wishes

they had asked for more.

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Moreover, given the large amount of solar PV the Navy and Marine Corps have installed coupled with California's increasingly cleaner grid, these EVs are probably among California's cleanest. These are moving examples of how EVs can be California's future. The Air Force continues active support, including 34 vehicles in a vehicle-to-grid project at L.A. Air Force Base, a project including partnership with the Energy Commission and many others in a recently completed 20-megawatt solar plant at Plant 42.

With the many unique aspects of the military mission, we appreciate your continued willingness to work with us to ensure both of our missions are compatible. We look forward to our continued partnership in the years ahead.

Thank you.

CHAIR NICHOLS: Thank you.

I believe that concludes the list of witnesses,

20 if I'm right, and it looks like I am.

We can close the record at this point and -INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

SAHOTA: Chairman Nichols?

CHAIR NICHOLS: Yes.

25 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

SAHOTA: Right here at the staff table. We need to make a statement about the CEQA process before you close the record.

CHAIR NICHOLS: Yes.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: So we heard several comments today and received written submissions as well. CARB staff has addressed the issues raised in these comments as appropriate under CEQA, either in the final environmental analysis or in the response to comments and the supplemental response to comment. These documents have been provided to the Board and made available to the public.

Thank you.

CHAIR NICHOLS: Thank you.

I think we should probably focus our attention on the resolution. I'm going to go out on a limb here and suggest that we're likely to adopt the scoping plan. And so the issue is going to be what, if any, additional language or changes we need to include in the resolution.

And I would like to offer the staff an opportunity to reflect first. People may have specific questions about things that they heard, but there's certainly a number of kind of common themes that were repeated several times. I'm going to mention one of them, and that is variations on the criticism that the current

Cap-and-Trade Program isn't strong enough, isn't tight enough, isn't effective enough, that there are too many allowances, et cetera. All of which, I hope we will not try to address in this proceeding, because I believe that we should be waiting for the staff to bring us quite soon a set of proposed amendments to the Cap-and-Trade Program. And there's going to be quite a few of them. And a lot of -- a lot of work has gone into it.

We may or may not find it completely satisfactory at that point, but we should have an opportunity to focus in detail on the -- on the Cap-and-Trade Program, and not try to make specific or partial corrections or changes to it here, if that's agreeable to my fellow Board members. It looks like it probably is.

So let's -- let's sort of skip that one, but let's talk about other comments about the scoping plan, things that may be aren't strong enough or may have not been given enough emphasis in the discussions. For example, I have a note here from my Vice Chairman, AB 197, and whether we are in compliance with that. And maybe I can turn that one over to you first, because that seems like the most important from an overall can we act on this plan perspective.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: Thank you, Chairman Nichols, and members of the

Board for sitting through the presentation and testimony today. You know, this plan was developed over 2 years. We had to adjust along the way to new legislation, new direction, and we had to adjust to new data that was coming in from modeling going on at sister agencies, and for new data that was coming in from stakeholders.

What we realized is and AB 197 was one of the pieces of legislation that came in almost in the middle of the process to update the scoping plan, we had to do additional analyses. And so we've added those analyses into the plan, which are the cost per ton of every measure we considered, the air quality co-benefits, and the societal costs of carbon for each of those measures. So that is actually in the plan.

Under AB 197, we are required to have a mapping tool to provide information about air quality in the state. We've made tremendous progress on that. There is a mapping tool. We're continuing to take public comment on the types of reports by census tract that are Of interest for sectors and for types of pollutants, and so that is ongoing work.

The piece that we heard about today was really about prioritizing direct emission reductions. The statute itself does say prioritize direct emission reductions, but it also references back to AB 32 about

cost effectiveness, and about technologically feasible and minimizing leakage. So in all of this, we had to balance all of those objectives at the same time.

What we have in front of you for your consideration is a plan that has multiple measures that are all aimed to be cost effective, feasible. And others may debate that they're cost effective or feasible, but we believe that those are the right measures to be included. They will get emission reductions at power plants, at stationary smokestacks, and at tailpipe emission sources in the state of California.

And so we do believe that the plan as presented balances all of the measures that we are required to balance in this Act, under AB 32, AB 197, AB 398, and that it is an achievable and lowest cost effective way to get to the 2030 target.

We do not feel that in any of this we missed an opportunity or we didn't take the opportunity to identify something else that we could have added into the list of measures. Now, having said that, the scoping plan is a snapshot of the available information and technology that we have today.

In the resolution and in the plan, we talk about 2030 being a milestone to the 2050 goal, and that we need to continue to pursue, examine, and evaluate additional

measures and bring those on as those become technologically feasible and cost effective.

And for the very first time in any of the scoping plans, in chapter 4 by sector, we have lists of potential actions that should be reviewed, evaluated, researched, potentially they may become cost effective or they become statutorily supportable actions that we can take and putting those on line in time. And we don't have to wait for the next scoping plan to do any of those actions.

So again, we do feel the scoping plan before you all does meet the mandates in AB 197, and we recognize that we need to keep looking for more.

CHAIR NICHOLS: Well, and on that issue of keep looking for more, this -- there's -- when you talk about the delicate balance, we've always had to balance the need to set a direction and a course that's clear enough, so that people will be convinced that we're serious and will make investments in California, including investments in allowances and so forth, but also, at the same time, to be able to make adjustments fast when we learn new things, and when new technologies become available. That's really the essential ingredient, if you will, of the whole climate program.

So I think it is important to recognize that while the plan needs to get done at some point in

sufficient -- a sufficient finality so that you can publish it. At the same time, it's constantly under review as well.

So, okay, I'm going to let other people speak. I'll start on this side.

I'm sorry, please.

ASSEMBLY MEMBER GARCIA: I can oftentimes get away with not saying anything when folks refer to Assembly Member Garcia, right. They're speaking of the other person.

(Laughter.)

ASSEMBLY MEMBER GARCIA: But in this particular case, I think the comments are directed towards the policies that we've put forward. I'll begin my comments by thanking everyone. It sounds like staff and the stakeholders have found a consensus to some extent on the first work that the scoping plan here is putting forward.

As you all know, I've been appointed by the Speaker to represent the State Assembly membership of the House. And via questions and concerns that were raised by my colleagues, I'm going to present some of those. And hopefully, they are by no surprise to anyone here.

I'll start my questions by directing your attention to page 34 of the scoping plan, specifically to the part of the table that talks about the direct GHG

reductions.

And the first question, and I have four questions is, is it the Air Resources Board position that cap and trade is a direct emission measure? And I think it was raised today quite bit of times. And the reason why that's coming forward, it's because when we passed AB 97 in to law, we had a lot of discussion about the impacts that the law would have on cap and trade, because the legislature and stakeholders involved at the time held those discussions and agreed that cap and trade to not to be a direct emission reduction program or measure.

And so that's the first question, is it that ARB's position that cap and trade is a direct emission measure, because it seems like that's where we're going if you look at page 34?

My second question is the potential oversupply of allowances factored into this uncertainty analysis for cap and trade. Has that been done? According to last week's Legislative Analyst's report, there's some concerns about that. And so we want to make sure that some of this is reflective of those issues that were raised.

Third question is what analysis has ARB done on additional direct emission measures, including new or potential amendments to existing rules and regulations that might be added to this portfolio to reduce our

dependence on cap and trade to meet the 2030 goals?

And the fourth and final question is the adaptive management plan that is not included in this plan, but was part of the prior draft of the scoping plan. And so I do have some requests that have come from my colleagues and I'll put those out there.

Perhaps Mr. Corey can address those questions and then the Board can deliberate, you know, the additional amendments that could potentially be put forward as they reflect the AB 197 mandates. And that would be the first would be to develop a list of additional or new rules or regulations that would result in direct emission reductions at stationary, indirect, and mobile sources in disadvantaged communities by December of 2018, adding some kind of cutoff point.

The second would be amending the 6th resolution regarding AB 398 implementation, top of page 9, to include an evaluation of allowance over allocation.

The third point is commit to convening the Independent Emission's Market Advisory Committee in January of 2017 to be able to advise on the development of the new cap-and-trade regulation.

And the fourth and final recommendation is commit to releasing any emission data as soon as it's available, even if it must be noted as preliminary data that hasn't

been third-party verified, and even if corresponding data for other pollutants is not available yet. Timely data and analysis, particularly regarding greenhouse gas emission trends is critical to ensuring we are on track for our ambitious goals.

So I'll go back to question 1, is it ARB's position that cap and trade is a direct emission measure?

Question number 2 was the potential oversupply of allowances factored into the uncertainty analysis for cap and trade? If so, what impact would the potential oversupply have on our projections for this plan?

What analysis has ARB been done on additional direct emission measures, including newer potential ones?

And then, of course, the final one, the -- regarding the adaptive plan -- management plan in the scoping plan that we have today.

CHAIR NICHOLS: Assemblyman, I'm going to as Rajinder to begin the responses and we'll add as appropriate.

ASSEMBLY MEMBER GARCIA: Thank you.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: Hello, Assembly Member Garcia. So on the direct measure. On page 34, we talk about regulations for direct GHG reductions. We do believe that the Cap-and-Trade Program will get reductions in stationary sources and

mobile sources. Post-2020, the rate of reductions more than doubles, the amount of allowances continues to decline, and there is a very steep decline in the amount of allowances that are actually provided freely to industry. And the price for the allowances actually does increase every year 5 percent plus inflation.

And so, everyone will be facing an increasingly higher carbon price and a need to reduce emissions, or they'll be looking for those allowances at a higher price in the market. And we do believe all of that together will force reductions at these sources.

AB 398 also adds in further limits on the offsets. There's already an offset usage limit. We will see a reduced offset usage limit post-2020, and that will also impact the amount of instruments that are available for supply, meaning that there will be direct reductions at smokestacks and mobile sources in the State.

The scoping plan identifies that there's potential co-benefits associated with cap-and-trade reductions, if entities are seeking out energy efficiency Measures. They will also see co-benefits and reductions in NOx and diesel PM at the same sources.

The other regulations that are part of the scoping plan that are direct measures include the oil and gas measure that is part of the Short-Lived Climate

Pollutant Strategy. There is also the measure for the dairies. It's going to be phased in much later, but that is also a direct measure on a sector in the economy. So there are a variety of measures that are detailed underneath all the high level policies that are in the scoping plan that are going to get direct emission reductions in very specific sources in the State.

On the oversupply issue, we believe that the uncertainty analysis, because of the way it looks at what future emissions may look like and the way it looks at fuel prices, it does capture the uncertainty about, well, how allowances may or may not be available in the future.

Now, it may -- it may not be sufficient to inform what a regulatory amendment should look like for cap and trade as part of the regular rulemaking, and we will have a process that kicks off -- or actually has kicked off to look in more detail at this issue. But at the level that the scoping plan is designed, it does have a way to factor in concerns about extra allowances in the system because of the overperformance of the existing climate programs today.

For direct measures and new amendments to reduce demand, some of the new measures are again the pieces that are under like the short-lived climate pollutant strategies, the oil and gas regulations. When we look at

the efforts at CEC under SB 350 to look at a doubling of energy savings -- energy savings, there are additional measures that will be put in place to get direct emission reductions. And so there may be many, many measures across many State agencies that are going to work together to make sure that there are these direct reductions at sources at the smoke stack and the tailpipe.

In the resolution we do have a commitment that we'll continue to look at these other potential opportunities besides the ones that we're already going to be implementing under these policies in the scoping plan, and summarize those for Board members every year.

For adaptive management, I would ask Floyd Vergara who's been leading that effort to respond to that.

INDUSTRIAL STRATEGIES DIVISION CHIEF VERGARA:

Sure. Thank you. I think it would be helpful to step back a little bit anD kind of do a recap on where we went with the adaptive management process. We did discuss that with the Board at the November hearing last year.

And it was also discussed at the 2 EJAC meetings that were mentioned by Mari Rose.

But just so you understand and just to refresh your recollection, we did set up an adaptive management work group in November 2015. And the purpose of the work group -- and this work group included 2 EJAC, members

of -- representatives of industry, the air districts,
American Lung Association and academia, Dr. Rachel
Morello-Frosch, who you're all familiar with, from the
OEHHA and Cushing Report. And the purpose of the work
group was to help us work through the technical issues in
adaptive management. It's a highly resource intensive
process in terms of identifying -- looking at the data,
best available data we had at that time, trying to figure
out how to determine whether changes in the emissions data
constitute a real and meaningful trend, figuring out how
you -- how do you tease out the causes of changes in
emissions to determine whether cap and trade is the reason
something is happening or whether there are other reasons
for that? How to decide whether a change is significant?

And then finally what types of adjustments might be appropriate. So we spent an entire year going through that, plus including a extensive public process, where we went -- we had 4 different workshops around the State.

And, you know, as we went through that process, and we presented the data that we had at the time, it became really clear that there were numerous challenges with the data quality that we were looking at, and trying to figure out and trying to tease out what was causing these. In a number of cases, it was really unclear whether there was an emissions trend going on at all. And

there were artifacts of changes in the reporting and calculation methodologies that the districts were employing. There were gaps in the data that was reported.

And, you know, all of these different factors basically made it impossible for us to determine whether there were real trends going on and what was the cause of that. And then finally, whether cap and trade or some other source might be contributing to those changes.

So having said that, we are now, you know, post AB-197, and working under 617. We're now working with the districts to improve the data. I think a number of these issues were also encountered by the researchers who did the OEHHA report, and also the Cushing report. They identified a number of the similar issues, in terms of inconsistencies and methodologies, and identifying which facilities were, you know, in the reports.

So we're now working with the districts to improve that data under our AB 197 program. In the meantime, the data that we have for the mandatory reporting sources, that has been put into the visualization mapping tool. I think that was demonstrated for you all a number of months back. And that would allow the public to run their own analysis on, you know, any sources or any regions that they want to do, and run reports by geographic area, sector, or facility to see how

the trends are changing.

We're also working with the districts to review that data, improve it to the extent possible, and understand what underlying factors affect the trends, and also identify opportunities for reducing those emissions.

You'll note that in the resolution language you have -- excuse me -- you have before you, there is language that speaks to continuing -- continuing to work with stakeholders to develop and make available additional air emissions data reports - speaking to your question directly - in the emissions inventory mapping tool to allow for the evaluation of air emissions trends by sector, by census tracts, and to make the first reports available by September 2018, and annually thereafter. So hopefully, that speaks to your question on that.

OEHHA was --

CHAIR NICHOLS: May I interrupt you? I'm sorry. I think you gave a full and accurate answer, and I hope this isn't seen as contradictory, but without being defensive about it, because I don't -- I think we absolutely do not want to be defensive.

INDUSTRIAL STRATEGIES DIVISION CHIEF VERGARA:

CHAIR NICHOLS: I think we want to be open to learning the truth about what's really going on. But I

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    think what you're saying is that we don't agree that there
    is sufficient proof as of yet as to what's actually
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    happening in these individual facilities in the
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    communities. Is that what you're saying?
             INDUSTRIAL STRATEGIES DIVISION CHIEF VERGARA:
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 6
             Yeah, that's essentially it.
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             (Laughter.)
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             CHAIR NICHOLS: I think it's helpful to --
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             INDUSTRIAL STRATEGIES DIVISION CHIEF VERGARA:
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             I'm sorry, the lawyer in me kicks in and I have
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    to have these long explanations.
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             (Laughter.)
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             CHAIR NICHOLS: You know -- but we're prepared to
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    and are, in fact, putting serious resources and time and
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    effort into studying it, so that we can -- so we can know.
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             INDUSTRIAL STRATEGIES DIVISION CHIEF VERGARA:
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             That's exactly right.
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             CHAIR NICHOLS: And if we find it, then we're
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   going to pursue it.
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             INDUSTRIAL STRATEGIES DIVISION CHIEF VERGARA:
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             Yes.
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             CHAIR NICHOLS: Okay. Thank you.
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             BOARD MEMBER TAKVORIAN: So in the spirit of
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    clear communication, can I just go back --
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             CHAIR NICHOLS: Yes.
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BOARD MEMBER TAKVORIAN: -- for a second to the question - thank you Assembly Member Garcia for raising about cap and trade. I -- frankly, I was a little stunned when you asked the question, because in my mind it was of course not. Cap and trade has never been regarded as a direct reduction measure. And I think that was the beauty of AB 197. And that was that it was responsive to communities that needed those direct emission reductions, and those measures in their communities. And it was always considered that cap and trade was an indirect measure, that it was allowing flexibility for industry.

So it was specifically responsive, and it's the -- all the other measures that are listed -- not all the other measures, but the other ones that are on page 34, plus many others, that I think ARB is pursuing. And I -- if I got it correctly, I would say that your recommendation of developing the list of additional measures would be a good addition to the resolution, so that we can start that process of having those direct emission reductions. And let's not confuse that with cap and trade, so that -- and those that would be particularly helpful and impactful in disadvantaged communities.

So I would hope we -- just on that one point. I know you made several, but just on that one point, hopefully we could move that one forward. I also think it

will quite helpful in the AB 617 process to begin to develop that list. So I know you responded. Maybe we just don't disa -- may be we just disagree. But I think cap and trade is one thing, and direct emission reductions are another area. And they've been talked about that way for a very long time. So I think it's important for the Board and for the community to understand that those are different. And while we hope cap and trade will reduce emissions, but it's not direct. In the way that we've talked about with stationary sources and all the others.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: So I would just say that there -- we should make sure that there's some clarity on the terminology. We are seeking direct emission reductions, and those are reductions at the source as defined in AB 32, and believe -- we believe cap and trade will get reductions at the sources that it covers.

The other terminology that we're using here is a direct measure. And a direct measure is different than a market based measure. So AB 197 asks us to look for -- prioritize direct emission reductions, and the table we talk about direct emission reductions.

Sitting here, I realized that there's terminology, and it's been used back and forth, and we might be part of the program here. But in the table we do

mean direct emission reductions from the sources. And AB 197 does speak to direct emission reductions. It does -- AB 197 doesn't specify a specific tool by which to get those reductions, it specifies that we get direct emission reductions which is at the source.

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BOARD MEMBER TAKVORIAN: So maybe to further that clarification, it would be helpful to include that recommendation, Assembly Member, in the resolution, so that we could have a list that was perfectly clear. So I would -- I don't want know we want to do this Chair, but I would move that part. I know we don't have a whole motion, but could we just move that part of the -- Assembly Member Garcia, can we move that one part along? I'll make the motion, if that would be helpful.

CHAIR NICHOLS: Well, I think, from a parliamentary perspective it's not a motion. It was a request for information. So it was a request for us to respond to that -- to that question.

ASSEMBLY MEMBER GARCIA: Madam Chair, there were 4 specific recommendations for the Board to consider incorporating into --

CHAIR NICHOLS: To incorporate into the resolution.

ASSEMBLY MEMBER GARCIA: -- incorporated into the resolution.

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             CHAIR NICHOLS: I see.
                                     Okay.
             ASSEMBLY MEMBER GARCIA: And recognizing I don't
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   have a vote here, but I do have a seat here --
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             (Laughter.)
             CHAIR NICHOLS: Of course.
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             ASSEMBLY MEMBER GARCIA: -- I want to make sure
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    that I express --
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             CHAIR NICHOLS: You have, as you can see, a
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    fairly central seat.
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             ASSEMBLY MEMBER GARCIA: Yes.
                                             Thank you.
             CHAIR NICHOLS: And we're very interested in
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    trying to respond to what you're --
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             ASSEMBLY MEMBER GARCIA: Thank you.
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             CHAIR NICHOLS: -- saying.
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             I think let's just -- let's put that down as one
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    item then for a proposed amendment to the overall Board
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    resolution. I think it absolutely --
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             BOARD MEMBER GIOIA:
                                  Is there a way to get
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   written versions so we have the written -- maybe written
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   versions of --
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             CHAIR NICHOLS:
                             That would help.
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be helpful for us, I think, in moving -- in moving

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be very helpful in making copies of the written versions,

the language that the Assemblyman is reading. That would

BOARD MEMBER GIOIA: -- what's been -- that would

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   recommendations.
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             CHAIR NICHOLS: Great. Thank you.
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             BOARD MEMBER BALMES: Chair Nichols?
             CHAIR NICHOLS: Hang on a just a second. I'm
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    just going to recognize Mr. Serna.
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             BOARD MEMBER SERNA:
                                  Thank you.
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             BOARD MEMBER GIOIA: So are we going to get
    written -- just to be clear, we'll get -- will we get a
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    written version?
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             CHAIR NICHOLS: Everybody is going to get a
    chance to talk, but we do need a written version --
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             BOARD MEMBER GIOIA: Yes.
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             CHAIR NICHOLS: -- of what you have if you're
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   prepared to --
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             BOARD MEMBER GIOIA: That would be great.
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   would be helpful.
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             CHAIR NICHOLS: -- give it to -- the Clerk can
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    come and get it, and we'll make sure that staff has a
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    copy.
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             BOARD MEMBER RIORDAN: Well, the -- yes, I think
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    the staff would need a copy, because you're going to have
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    to analyze it and respond. We may have some questions.
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             EXECUTIVE OFFICER COREY: That's correct. Need
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to see a copy. I've got the gist of it. I could answer

one of the Assembly Member's comments about a

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identification of the rules and regulations that are called out in the scoping plan. In other words, what I took from that is a periodic accounting for how we're proceeding, in terms of implementation and status of the range in measures.

We have an annual report back to the Board. And in addition to that, our Chair Mary has an annual report to the Joint Legislative Climate Policy Committee that Assembly Member Garcia oversees. Within those reports, we'd include a status of the implementation of the scoping plan, how are we proceeding, for instance, with the range of measures, including the Low Carbon Fuel Standard.

So the short of it is, I see a provision in the existing resolution that includes an annual report back to the Board on the status implementation that would include how are we coming along in the measures that were called out in the scoping plan for achieving the 2030 target?

CHAIR NICHOLS: Yes.

BOARD MEMBER EISENHUT: On -- with regard to the report -- with regard to the report, is that going to come back by sector as sector analyses are concluded, or is it going to be a single report?

EXECUTIVE OFFICER COREY: I'd like it to be a single report, because I think it provides a big picture of how we're proceeding. But in addition to that, over

the course of any given year, this Board will have, for instance, this -- in 2018, just as one example, the Low Carbon Fuel Standard will be coming back. That is one measure in here. In fact it will be coming back twice in 2018. So one overall report what's the status of the overall implementation of the scoping plan.

But in addition to that, individual measures as they're developed in working through the public process would also be coming back to the Board. So it's really both.

BOARD MEMBER EISENHUT: Thank you.

BOARD MEMBER BALMES: Could I also ask a follow-up with regard to that?

CHAIR NICHOLS: Go right ahead, yes, please.

BOARD MEMBER BALMES: So I'm actually looking at the language of AB 197. And I think there's an issue that's been missing with regard to the annual report. It said that the emissions of greenhouse gases, criteria pollutants, and toxic air contaminants throughout the State, broken down to a local and subcounty level for stationary sources, and to at least a county level for mobile sources should be done.

And I don't think we've been talking about that level of granularity here. And I think it would go a long way to help the environmental justice community address

the concerns with regard to direct emissions.

Are we going that granular?

CHAIR NICHOLS: I think we have to.

(Laughter.)

BOARD MEMBER BALMES: Yeah, it's in the law.

CHAIR NICHOLS: I don't think we have a choice.

BOARD MEMBER BALMES: Unless Mr. Garcia wants to

amend it.

CHAIR NICHOLS: Right.

DEPUTY EXECUTIVE OFFICER KARPEROS: Dr. Balmes, if I was tracking your question, the language he refers to is in terms of ARB providing publicly that data of -- not necessarily in this -- specifically in this report, but provided generally to the public.

BOARD MEMBER BALMES: It says actually internet available.

DEPUTY EXECUTIVE OFFICER KARPEROS: And that's the unit -- that's the mapping tool that was spoken about earlier. So within that tool, you can type in an address and find out the emissions of greenhouse gases and criteria in your region. And by the end of the year, you'll be able to pull up the toxics inventory that we have online. You can overlay the CalEnviroScreen. So there is a rich ability to understand at a disaggregated level what the emissions are.

BOARD MEMBER BALMES: I just would share the disappointment that it's taken so long to get the adaptive management tool up and running.

I mean, frankly, we haven't put enough resources into it. I'm not blaming any one person. But this is something that, you know, I've been asking for since the first scoping plan. And I feel like we're dragging our feet. And I'm glad that AB 197 actually calls out that we have to do this, because I'm -- you know, it's lit some fire, but I'm not sure it's enough.

CHAIR NICHOLS: I think we had a report. I know we had a report to the Board on --

BOARD MEMBER BALMES: Yeah, in November of 2015.

CHAIR NICHOLS: -- how they were attempting to do this. And the concern at the time was actually about comparability of the data sets and how you make them all look like they're under some same base system, so that they can be compared with each other.

And I think that they've been struggling with that technical aspect of making 3 different legal systems and 3 different sets of data talk to each other in addition to the proprietary item -- the element that always comes to the fore when you start to act like you're actually going to do something with data, which is people suddenly become very protective of it, and don't

necessarily want to share it.

So it's -- it is not just an internal ARB issue that we're dealing with here. Having said which, I'm not going to say that I think it's going as fast as it should, be, but your -- your comments seemed to be a little bit implicate --

BOARD MEMBER BALMES: I apologize if I was too hard, but I think the environmental justice community expects this information --

CHAIR NICHOLS: Yes.

BOARD MEMBER BALMES: -- that's legally required for us to deliver.

CHAIR NICHOLS: Right.

BOARD MEMBER BALMES: And, you know, with AB 617, we're going to have to even be, you know, posting more data and --

CHAIR NICHOLS: Right. No, we've taken on a lot of responsibility here that has -- is way beyond anything that ARB had ever attempted to do before with the toxics program, and some of the information about what stationary sources are doing. And it's an expensive proposition, and I believe that we now have been given some resources to work on this with, which we didn't have before too.

EXECUTIVE OFFICER COREY: We have, that's correct. And just to respond to Dr. Balmes, I think this

is important, and to underscore the responsive -- the response to 197. Just a year ago, you couldn't go to our website and look at an individual facility and efficiently look at GHG emissions and criteria pollutant emissions, and look at I want to see a particular facility -- in my neighborhood a larger facility, and know what the emissions were -- reported emissions, and look over a time horizon, what were they the last few years.

You can go to the website now, you can look at your community. This is larger sources now. I can look at GHF. I can look at criteria. I can look at individual facilities. I can look at the facilities within a particular region that I might want to do A search in. That wasn't available.

That was in response to the very thing you're talking about, Dr. Balmes, and the -- and we're running into data quality issues. You know, we've talked about the challenges with data quality. The next step, and this was also called for in 197, is that we're working on now, is integrating the toxics data into what I just described. So I go to one facility, a refinery for instance, and the ability in that refinery to look at GHG emissions, criteria pollutant, toxic emissions, and to the degree that that data has been -- the current data that's report a trend -- or historical that is a significant step.

Now, does it still need to be further improved?

No doubt about it. I think it's toxics. And Kurt knows the specific time frame. I think it's the end of this --we're within a month or two of getting the toxics data populated, which isn't just for the ability for us to do the analysis, it's anyone that wants to go to our website and look at any individual facility or facilities in their neighborhood. This is a big step. Not perfect, but a significant improvement.

BOARD MEMBER BALMES: I agree that it's a big step, but I guess my frustration was right after that November presentation, November 2015, I believe, we were talking about having toxics to go online a few months later, like February 2016. And, you know, it looks like it's going to be 2018, so...

VICE CHAIR BERG: In looking at this list that has been requested, is there other data within 197 and 617 that we need to identify that is also going to create a list? Is there a way for us to coordinate so that we're giving the maximum effort, and the maximum information?

EXECUTIVE OFFICER COREY: The only thing I would add to that, Board Member Berg, is the fact that what this ask is is really the -- list the scoping plan measures. But when I think about the range of measures that this agency, even as recently as the SIP, the State

Implementation Plan, that the Board advanced had a whole range of mobile source measures in it. So even a -- I think a report, and I'm thinking about the status of the range of measures, not just in the scoping plan, but also the other mobile source measures that in some cases deliver GHG benefits, as well as criteria.

My point being, and I'm kind of thinking on the fly looking at this language, it really is, I think, a comprehensive, what's the status of the range of commitments or measures that the staff are proceeding on. And it goes beyond just what's in the scoping plan.

VICE CHAIR BERG: I really think it's fair to say that the EJ concerns are really around criteria pollutants, and the co-benefits -- and toxics, and the co-benefits that can be arrived as a result of greenhouse gas. And so I get concerned about focusing on greenhouse gas alone, and then we miss the mark, and then people are disappointed because we set expectations that we don't meet

So these are three very complicated set of measures, and how do we look at them globally to be able to put the best effort together of staff, and not send staff off in a lot of directions. And so that's what I was trying to see if we had something that we could put together that would meet what the Board is asking for in a

more efficient manner, and be very transparent out to the EJ community.

CHAIR NICHOLS: Well --

BOARD MEMBER TAKVORIAN: So we're kind of victims of our own success. I mean, I hope everybody is hearing it that way, both the legislative success and CARB success. And there's just a lot to do. And I think from an environmental justice perspective very simply, some facilities do all of those things that Board Member Berg listed. So they're greenhouse gas emitters, there are criteria pollutants, and there are toxics there. So we're -- that's part of what we're looking at in the emission reports that are required to come through AB 197. And that's why I think it was meant to be more comprehensive. And then there's all these other measures that may affect that.

So is there a way to craft this -- this is specific -- this add is specifically about new rules and regulations that would reduce all of those emissions. I think the other thing we're hearing is we want a comprehensive emissions data. And I think, Richard, you said that's what is already coming for 197. The question is, is it in the resolution that it says that will happen in order to comply with 197?

And if it's not directly stated, then perhaps

that's something that should be included, just so that everybody is clear. Would that help?

CHAIR NICHOLS: Okay.

EXECUTIVE OFFICER COREY: Yeah, Board Member
Takvorian on page 11 of the resolution, third resolution
down is the emissions data reports. And at the -- Dr.
Balmes was talking about it, the resolution at the census
tract level. And really, what we'll draw from the data I
was talking about that was being populated in this tool
that we've been working on to include both criteria and
GHG and now toxics.

BOARD MEMBER TAKVORIAN: Got it.

BOARD MEMBER BALMES: One more comment about the tool. I just went online, you know, to see how clunky it is or isn't, you know, if we want EJAC -- or EJ community members to use it, it's still a little bit, you know, clunky to get to off of our website. Just saying. That's just a general communications issue. I think we need to be a little slicker about Internet access.

CHAIR NICHOLS: We've got an awful lot of different pieces floating around here, and I'd like to try to bring some order into this discussion. There's several different ways that one could do it, but I'm going to propose one, which is that we use Mr. Garcia's template here and respond to that, and then we can talk about other

things that people might like to talk about in the resolution.

So I'm starting with number 1, develop a list of additional or new rules and regulations that would result in direct emissions reductions at these different sources to be presented to and considered by the Board.

Okay. I have a couple of comments about that. The first is I think it should be clear that that refers to criteria pollutants and toxics, not just to CO2, even though this resolution is -- I mean, this whole scoping plan is primarily focused on -- it is focused on meeting our CO2 standards. We have these additional responsibilities. And I think that's a fair request.

However, I want to say that -- and I'm just going to -- this is my observation. I think there's a fair chance that what we will find is when we actually look at these rules and regulations and emissions, that we do not necessarily have a big list of new rules and regulations. What we may have is a need for improved enforcement, for example, permits that are actually enforceable, as opposed to a new rule, or that there may be ways in which we're going to be able to get more -- and more timely data about what's happening, as opposed to just new rules and regulations.

So I would want to modify the language on that

slightly in order to make sure that if we only have a list that's one or two rules, but more on the enforcement side, that that's not deemed to be, you know, a failure by ARB.

BOARD MEMBER GIOIA: I just have a questions on this just as a --

CHAIR NICHOLS: Yes.

BOARD MEMBER GIOIA: -- local air district --

CHAIR NICHOLS: Yes.

BOARD MEMBER GIOIA: -- Board member.

So it's to understand sort of authority issues here. I agree with the intent here, so I just -- but I want to understand sort of authority -- different authority issues. ARB has authority to directly regulate greenhouse gases. To what extent is its authority -- I mean, clearly, local air districts have the authority to directly regulate criteria pollutants and toxics, at stationary sources.

To what extent does ARB have that authority -- because we want to be most helpful in thinking about which measures would be adopted at the local level, and then which measures would be adopted at the State level.

And let me just say I understand from EJ communities, coming from Richmond myself, is that there are different levels of regulation of the -- of criteria and toxics at stationary sources across air districts in

California.

And I think in the Bay Area, we've been very aggressive, and maybe that hasn't been the case at some other air districts around the State.

And so there's often ask of the Air Board to come up with standards that bring up maybe what some of the local air districts haven't done yet.

And so I want to just under -- so -- and my sense is that's where many are going is, you know, there are varying levels of regulation across air districts in California. So what -- what is the route for the Air Board to most help in that area? Do you see the question?

CHAIR NICHOLS: That's a good question, and I think Richard can probably answer that.

EXECUTIVE OFFICER COREY: Yeah, I'm going to take a stab at it. And I think, in part, as you noted, Supervisor Gioia, the air districts have primary authority over stationary sources. They compartment them, they enforce them. We have an oversight role.

They also have a key role on toxics, which also they have toxics rules and permitting authority. The State has an overall toxics program, but basically it's implemented and enforced generally at the local level. They usually adopt rules.

But I think if you get to the heart of the

question you're asking, and I think that was embedded in the questions that the -- some that the Assembly Member was asking, Assembly Member Garcia, it's about additional reductions at the community level.

BOARD MEMBER GIOIA: Right.

EXECUTIVE OFFICER COREY: It really is a 617-type issue. Where are there further reductions of criteria and toxic pollutants at the local level. And I really am pointing to the significance of 617 saying -- directing the State within 2018 time frame, develop an overall State strategy that will translate into districts required to develop local community reduction plans. And the expectation of those community reduction plans is partic -- focused on these most burdened communities, where are the opportunities for further reductions?

I think we're going to see opportunities for further mobile in a given community, also stationary. And I think the next question is going to be is that a local rule? If it's stationary, it's going to be a district rule most likely, tightening that district rule, or is it an enforcement issue?

So it's going to be the -- what are the arrows in the quiver to respond to those elevated community exposures. And I think the response is going to be multiple addition -- tighter rules at the local level,

additional mobile measures and incentives that basically speak to what is impacting that community. I think the significance of the 617 plans and the direction of 617 is all about this local exposure issue and intentionally having specific actions to respond to it.

CHAIR NICHOLS: But, again, we are given new power to define the technology that's best available retrofit control technology under 617 that we have not had before. So it's not a new regulation. It's a new direction to us to review what's happening at the district level, and to insist on improvement, if we think it's not up to snuff.

EXECUTIVE OFFICER COREY: And to establish the benchmark by which local community reduction plans will be judged, and the authority to approve or not approve them.

CHAIR NICHOLS: Right. So this is taking us in a new direction of actually proposing rules and regulations, which may be beyond our authority as Supervisor Gioia is gently suggesting here.

(Laughter.)

BOARD MEMBER GIOIA: I'm not saying we shouldn't be looking. I'm just trying to understand authority, right? If we can identify measures, we want to be clear on saying what do we have authority to actually implement at our level, and what -- and which -- and what is the

authority of local air districts, right?

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EXECUTIVE OFFICER COREY: Yeah. And if I just -just to point a point on that to respond directly to it,
and I'm keying off again 617, because I think that's a
very specific example. You have a community with elevated
exposures, let's say toxic and criteria pollutants.

BOARD MEMBER GIOIA: Right. Right.

what sources are contributing to those elevated exposures. Three, what are the strategies to respond? And it gets right to your question, if it's local -- let's say it's a refinery, that would be a local rule tightening that local permitting rule. If it's old heavy-duty equipment that's operating within that community, that may be incentives to get those off the road.

It's outlining the -- what is contributing to the problem, and having specific actions and dates --

BOARD MEMBER GIOIA: Right.

EXECUTIVE OFFICER COREY: -- and that map also to authority with clear responsible parties called out.

CHAIR NICHOLS: Ms. Miller --

BOARD MEMBER GIOIA: Chair Nichols, what I think is --

CHAIR NICHOLS: I'm sorry, go ahead and finish.

BOARD MEMBER GIOIA: Okay. What I think is

relevant here is that -- and maybe this is sort of the informal authority that ARB has that I think there's concern in some -- in a number of communities across the State that there's not enough meaningful or strong regulation at the local level, in some parts of the State. I think that's a fair characterization. We hear that.

If we identify potential measures, we sort of are a bully pulpit as well, and that ARB -- even if it doesn't have authority to pass some of these regulations, it's sort of like a best practice list. Because we also hear, and I hear this from those in industry, they'll say, well, this district has a less ambitious goal. You have a more ambitious goal. Wouldn't it be great if there were similar goals across the straight at the local air district level that provided the same level of health protection to communities who live near sources of emissions and not have varying level -- standards?

In a way, we can -- we can list, pursuant to the suggestion by the Assembly Member, the types of regulations that may be effective at achieving additional reductions which would then help encourage local air districts that don't have them to adopt them.

BOARD MEMBER MITCHELL: Let me say that at least in the South Coast District, the rules that are on our calendar, I mean, they're listed in the last Board

package. Every rule that we're going to consider next year is in that Board package. If it's not in that Board package, we're not going to consider it. And any Board member can request -- well, I have requested I want this rule. I want to look at this. And it will go on that list.

So it does exist, and it's a pretty long list.

So it does give your staff knowledge of what they're going to deal with in the next year.

CHAIR NICHOLS: Um-hmm.

BORD MEMBER MITCHELL: Sometimes we can't get to all those rules by the end of the year, which one of them that I put on there we couldn't finish it. That was ending a reclaim program. So that has been extended another few months into next year, but it was on the list last year. It had to go on the list to be considered. And you can find it in our -- it's in our last December Board package.

And so you'll see what's on that list. I mean, it does exist. And it may -- that may not be the practice in all air districts, but it is the practice in South Coast.

CHAIR NICHOLS: You know, what I'm -- I'm just going to say right now, we keep on discussing how to respond here. But I don't think that just using the

language that's in this draft resolution is going to get us where people want to go, where your colleagues want to see us go.

And I'm wondering whether -- that's not true of the others by the way. I'm prepared to say we could do number 2. We could do number 3. Although we may not be able to convene it by January, especially January 2017, since that was this past January. But even by January 2018, we may not be able do it, just because we haven't asked all the people who need to serve to serve, I believe.

DEPUTY EXECUTIVE OFFICER CHANG: So what the statute says is that the Senate, the Assembly, and the Governor make appointees, and then CalEPA convenes the Committee. So this is actually not within the purview of the Air Resources Board. As of right now, I think there's only one member that has been named, and it's the Senate has named a member.

CHAIR NICHOLS: Okay, so -- but we should certainly be moving on that. And to the extent that the Governor would like our advice about who he should appoint --

EXECUTIVE OFFICER COREY: Yes.

CHAIR NICHOLS: -- we could certainly be suggesting names to him. Yeah. But that's a -- there

should be an intention to get that underway, sooner rather than later. I think that -- as we are moving forward on amendments to the Cap-and-Trade Program, that kind of goes without saying that we should have the Committee.

And on the fourth item, I know, not being a scientist, how anxious people get about this issue about when data gets released. But as a general rule, I'm in favor of releasing data whenever you've got it. I don't think we should be holding it and massaging it. So if we have it, we ought to be able to make it available.

BOARD MEMBER RIORDAN: But, Madam Chairman, if it is not though verified, I'm assuming this is greenhouse gas emissions, and we've --

CHAIR NICHOLS: Then it has --

BOARD MEMBER RIORDAN: -- if you really believe in the program of verification --

CHAIR NICHOLS: Right.

BOARD MEMBER RIORDAN: -- I don't think it should be released until it's verified.

CHAIR NICHOLS: It isn't even submitted to us until it's verified generally. I mean, if -- when people have to submit their data, they get it verified, right?

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: Board members, may I add some additional

25 information on number 4?

1 CHAIR NICHOLS: Sure.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: So when the data is reported, there's two separate reporting dates for the large stationary sources and then for the more complicated electricity transaction reporters, the utilities. There's 3 months underwhich that data has to be verified, and then that data is held until after the cap-and-trade compliance deadline. We don't want to leak that data out, because it could be used to manipulate the market, and it's always released after it's been QAQC'd after the compliance event.

It's released on the same schedule that we release with our partners for the market program. The other concern is that, if --

CHAIR NICHOLS: Excuse me, just before you go on.

Are you talking about the mandatory reporting data?

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

18 SAHOTA: Yes, yes.

CHAIR NICHOLS: The data that is in the mandatory -- the one on which people base their fees?

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

22 | SAHOTA: Yes, and they --

CHAIR NICHOLS: They give us this preliminary data and we sit on it, and we don't collect fees, based on it?

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: So there's -- there's fee data, which is in arrears and that's 2 years behind. So that process doesn't rely on some verified data, but it's historical verified data that's already available on the internet.

CHAIR NICHOLS: Um-hmm.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: For each year, for example, for 2016, the data was reported earlier in 2017, and then it undergoes verification. And then we have the cap-and-trade compliance deadline, and that data is released 2 days after the cap-and-trade compliance deadline.

CHAIR NICHOLS: Right.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF
SAHOTA: The inventory data, which is what we use to track
the greenhouse gas emissions progress towards the
statewide target, that needs additional data that has
federal sources that are not available earlier. And so
that takes a bit longer than the mandatory reporting data
to put out, because it's incomplete.

The challenge with the MRR data, which is the mandatory reporting data, is that if -- we don't release it until it's certified. So people have to finish the reporting and certify it by a deadline. Everyone will not want to have their data piecemealed out, because it will

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give a sense of what they need in the market for allowances.

3 CHAIR NICHOLS: Right.

4 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

5 | SAHOTA: And so folks will wait till the very last

deadline to actually put their data in and certify it. We

have a very limited time to actually have it verified.

8 | And it will be an implementation crunch to try and get 450

data reports verified by about 50 entities over a

10 | compressed time period.

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We want to encourage people to report and certify earlier, so we can spread out that verification timeline and do our QC/QA.

CHAIR NICHOLS: Sure. Very sensible, but very incompatible --

(Laughter.)

CHAIR NICHOLS: -- with the desire to have information be made public.

And again, we're back to this question of is what people really want the CO2 data or is what they want the toxics and air pollution data, which we don't have a -- which we don't care about releasing early?

DEPUTY EXECUTIVE OFFICER KARPEROS: Chair
Nichols, if I could respond to that. You're absolutely
correct. The complications that Ms. Sahota was taking

about, the mandatory reporting rule, do not apply to the criteria and toxics inventory.

One of our first goals under 617 is actually to increase the reporting frequency of that data to us, so that we can turn around and get it in our mapping tools, so that it's available to the public as quickly as possible.

So certainly, the spirit of this --

CHAIR NICHOLS: Um-hmm.

DEPUTY EXECUTIVE OFFICER KARPEROS: -- of this suggestion, when we were thinking about toxics and criteria is something we would very much want to support.

CHAIR NICHOLS: Aren't you glad you raised all these questions?

(Laughter.)

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CHAIR NICHOLS: Could -- I guess this is just

a -- this is really to you on behalf of the other members

who are interested in these issues. And I know they

worked on the -- on this to make sure that you had this

here. Could we defer a response? Could we table this

request until after we have the oversight hearing that you

are going to be chairing, and we will present some more

responses to that?

ASSEMBLY MEMBER GARCIA: I would be amenable to that. And I think my colleagues both on the Committee and

those who had some input on this would as well, with the commitment that we bring this back for some conversation after the joint legislative hearing as well.

CHAIR NICHOLS: Right. And then I will be prepared at that time, since hopefully by then my staff will have educated me about all the things that I don't know that I think I know, that we can respond to this -- to these issues.

Okay. Thank you very much. That's really helpful.

All right. We had other members who had comments that they wanted to make however -- or suggestions that they wanted to make about the resolution, I believe.

Dr. Balmes.

BOARD MEMBER BALMES: Well, these are more general comments. I think I've already mentioned 197 and adaptive management. I don't I have to say anything more about that. But there were two other issues.

One that the EJAC -- that Mari Rose brought up was biomass burning. And this is something I have a lot of expertise about both in this country and elsewhere.

And I think now many Californians have experience with direct effects of wildfire smoke. And I just have to say in principle, burning biomass uncleanly is not good for either health or for climate change for that matter.

So -- and there's a tension here, because I also know enough about forest management to realize that if we want to avoid catastrophic wildfires, we need to get rid of a lot of the underbrush and dead trees et cetera. And you know, burning them is the easiest way now. But I really feel -- and it's in the -- I believe it's in the scoping plan to try to divert this biowaste to other less polluting uses, but I really -- you know, I think it's problematic.

Biomass burning, unless it's done really cleanly, it has environmental justice impacts, because where these facilities are located is often in disadvantaged communities. And it -- yeah, I'm all for having more trees to store carbon dioxide, and I'm all for forest maintenance to prevent catastrophic wildfires. But, you though, burning biomass is, you know, unhealthy and not good for climate change. So I just want to make a plug for that.

And then also --

CHAIR NICHOLS: Could I just -- could I -- could I build on that though for just a second?

BOARD MEMBER BALMES: Sure.

CHAIR NICHOLS: Because when I saw that item, I said why wouldn't we just agree to that? Why didn't we agree to it in the first place, if that really was what

the EJAC was asking? Because I don't think anybody thinks that burning biomass is the best -- highest and best thing to do with biomass. So the question is, is there something buried in here in that issue that I don't understand.

I mean, there's issues about composting too. And they -- they specifically talked about recycling and composting as the two desired methods of dealing with biomass, and, you know, burning as -- but there was a range of other options that are looked and are being used. And biomass isn't all forest waste either. There's a lot of other types of biomass that are being used. So this to me was part of the response to the EJAC recommendations, which is to wonder why we couldn't accept that recommendation, or at least, you know, say we're going to pursue that as a general policy?

EXECUTIVE OFFICER COREY: The last part of your statement, Chair, is right on point. We are and should. I know there's a dead and dying tree -- this is, I think, a short-run issue. The number of biomass facilities, as you all know, are far less than they used to be, economic and other related issues. The work with CalRecycle and others is through what are the viable alternatives. That is underway. This is absolutely the principle from a directionality standpoint. So we agree with the principle

of not burning biomass.

BOARD MEMBER BALMES: And then my last point was regarding funding for our State health agency partners, specifically CDPH, and Office of Environmental Health Hazard Assessment. I know we've already provided some funding for CDPH to help us with quantifying health benefits, but I think we're going to need more. I'm being a blatant advocate for more funding for our public health partners, but I think it's important.

I think the amount of money that we have rightly invested towards their help, you know, may have remained static. And I think we need them to be more helpful. So I'm just making a plug for that consideration.

CHAIR NICHOLS: Okay. Thank you.

(Laughter.)

CHAIR NICHOLS: We -- I think you probably know this, but we have some power to contract with other State agencies to do things that we want them to do, and I think we should do that. We can also be advocates when it comes to their budget as well, but that has to be internal, not external.

Okay. Thanks. Other comments, or suggestions, or are people ready to move along here.

Yes, Mr. Gioia.

BOARD MEMBER GIOIA: On a just -- on a different

issue. It's a question of staff. I'd be interested to hear the staff's response to one of the EJAC recommendations about ensuring that CARB evaluates how the cap-and-trade model will meet 2030 emissions targets by modeling the program between 2020 and 2030 to avoid issues with overallocation and banking of allowances, price, offsets, and out-of-state sources.

I mean, I know we've talked about -- I know there will be clearly amendments to the Cap-and-Trade Program coming here, in which all of these issues are going to get considered. But I think it's important to acknowledge that the staff is attempting to address this issue, and to State sort of the path on this, without knowing the outcome, right, the path of looking at this, and whether that needs to get expressed in the resolution or at least expressed in some way to provide some assurance.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: Supervisor Gioia, on page 9 of the resolution we speak to this. It's the 4th be it further resolved. And it talks about reflect the direction in --

BOARD MEMBER GIOIA: I see that, yes.

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: Yes. And so as part of that process, we will have analyses and public workshops informal and formal to walk through each of the provisions in AB 398 as staff

develops the proposals. I think there's a misconception that there's some cap-and-trade model out there.

There isn't a cap-and-trade model out there.

Even when we did the scoping plan, we had the PATHWAYS model. And that's based on assumptions in technology that we put into the model to understand what the sectors respond to in terms of changes in emissions.

Because in cap and trade, you don't know all of the actual actions, you can't predict which sector will reduce in which way. There's one path that we actually did reflect, and that was in Alternative 1. And so that was our attempt to look at a mix of policies that could be undertaken to achieve the amount of reductions under a cap-and-trade policy.

So there's an infinite number of ways to get those reductions under cap and trade. We can look at how all of the other pieces like SB 350, LCFS interact with the Cap-and-Trade Program, but we may not be able to model the entire program to know on this date this action will be taken in this sector. So we want to make sure that folks understand that we can't be as specific as I think they want us to be.

BOARD MEMBER GIOIA: Right.

CHAIR NICHOLS: Well, because that's the point of cap and trade is that we think that the people who have

these emissions are smarter about where they can get the reductions cheaper, and that's what they'll do, right?

BOARD MEMBER GIOIA: So this resolution you refer to directs the Executive Officer, right, to amend the Cap-and-Trade Regulation with a public process and that looks at potential impacts from changes to design features, assessments of quantity of allowances available at auction, price containment points, price ceiling to ensure sufficient carbon price to incentivize GHG reductions.

So your belief is that this will -- this process going forward will address sort of the concerns that were expressed in the EJAC recommendation?

INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF SAHOTA: That's right. I mean, the label of overallocation is really the reference to the fact that we've been very successful at reducing greenhouse gases. And as a result, we didn't need to use all the allowances to date and may not need to use the allowances through 2020.

We will need to look at what people are doing in the market. Are they actually buying those? There's a limit to how much they can buy, because there's holding limits. And there's also an increasing cost, and so people are going to respond to a carbon price. They're

not going to admit just because they can go buy an allowance.

So we have to look at all of these behavioral patterns and understand how that interacts with the allowances and the amount of work that we need cap and trade to do to hit the 2030 target.

BOARD MEMBER GIOIA: Thank you.

CHAIR NICHOLS: Yes, Ms. Takvorian.

BOARD MEMBER TAKVORIAN: Thank you.

I just wanted to say as I hear that we're moving towards conclusion here, that I think that the scoping plan, there's been this heroic effort. And I think that it's comprehensive, and overarching, and visionary, and sometimes very vague. There's a lot of metrics in it, but there's a lot of vagaries in it, and there's a lot of projections in it. And I think that's the nature of the beast in a certain way.

And so I wanted to appreciate that there were any more specifics provided in the resolution than I think we had previous. And I -- I'm taking heart from that, that those are at least the places where we can expect more action and specific action with specific deadlines. And I know that it isn't everything that I think all of us, and particularly the EJAC had wanted to be clearer, but I think it's a really good starting place, and much better

than it was a year ago or even a few months ago. So I feel comfortable supporting it, so that we can go forward and actually implement the measures that are there.

And I also want to give a huge shout out to the EJAC. I mean, we've quantified how much effort there was for these volunteers who traveled around the State, who met here in Sacramento, who met everywhere to try to do -- to represent environmental justice communities, and it's a tough lift.

And I also want to shout out to the staff, who followed them all around, and led them, and provided facilitation, and comfort, and a lot of work. So I think they did a great job with that. And having served on the first EJAC, which is like a global difference. I don't how to say any big -- it's very big, a huge difference from the first one.

So I think we have moved on, and I do think that environmental justice and equity are baked in now in many ways, and that's evidenced in the scoping plan, so I think that's a good thing. And that doesn't mean that it's perfect, or that it takes care of everything in our communities. It doesn't at all, and we've talked about that at length.

But I do want to say that I think there's some real movement forward in some big ways. So I just wanted

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thank everyone who's participated in that, including Board members, who are working so hard and will continue to, so thank you.

CHAIR NICHOLS: Thank you.

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VICE CHAIR BERG: And then, Madam Chair, I'll also would like to echo and thank you for all your hard work, Board Member Takvorian.

And I'd like to move Resolution 17-46.

BOARD MEMBER SERNA: Second.

BOARD MEMBER BALMES: Second.

CHAIR NICHOLS: There's a second. Actually, two seconds.

I think we could proceed to a vote, unless anybody has any discussion that they would like to have on the motion?

Seeing none. Why don't we do a roll call vote on this one. Please call the roll.

BOARD CLERK McREYNOLDS: Dr. Balmes?

BOARD MEMBER BALMES: I vote yes.

BOARD CLERK McREYNOLDS: Mr. De La Torre?

BOARD MEMBER DE LA TORRE: Aye.

BOARD CLERK McREYNOLDS: Mr. Eisenhut?

BOARD MEMBER EISENHUT: Aye.

BOARD CLERK McREYNOLDS: Senator Florez?

Assembly Member -- I'm sorry. Supervisor Gioia?

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BOARD MEMBER GIOIA:
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                                  Aye.
             BOARD CLERK McREYNOLDS: Ms. Mitchell?
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             BOARD MEMBER MITCHELL: Yes.
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             BOARD CLERK McREYNOLDS: Mrs. Riordan?
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             BOARD MEMBER RIORDAN: Aye.
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             BOARD CLERK McREYNOLDS: Supervisor Roberts?
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             BOARD MEMBER ROBERTS: Aye.
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             BOARD CLERK McREYNOLDS: Supervisor Serna?
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             BOARD MEMBER SERNA: Aye.
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             BOARD CLERK McREYNOLDS: Dr. Sherriffs?
             BOARD MEMBER SHERRIFFS: Yes.
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             BOARD CLERK McREYNOLDS: Professor Sperling?
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             BOARD MEMBER SPERLING: Yes.
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             BOARD CLERK McREYNOLDS: Ms. Takvorian?
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             BOARD MEMBER TAKVORIAN:
                                      Yes.
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             BOARD CLERK McREYNOLDS: Vice Chair Berg?
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             VICE CHAIR BERG: Aye.
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             BOARD CLERK MCREYNOLDS:
                                      Chair Nichols?
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             CHAIR NICHOLS: Aye.
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             BOARD CLERK McREYNOLDS: The yes votes wins.
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             CHAIR NICHOLS: Thank you very much.
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             For the sake of our court reporter, we are going
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    to take a recess. It will help us too. Let's give it 10
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    minutes. Thank you all. This is a major step forward.
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             (Off record: 4:02 p.m.)
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(Thereupon a recess was taken.)

(On record: 4:11 p.m.)

CHAIR NICHOLS: Okay. Let's get back to work.

Before we begin the last item of the day, I was so excited about getting to this hearing that I forgot to make an announcement that I was required to make about the executive session that we had at lunch, which is that we had an executive session at lunch. The Board received information from our legal staff about some litigation that we had not been informed about before. We didn't make any decisions or give any direction, but we did have a discussion, and that was it. So I just needed to report that for the record.

The other thing I want to say is although the climax has already come and gone is that what we just did in adopting this 2017 scoping plan is a huge deal. It's actually extremely important for our program, but also as a sign for everybody literally around the world who's looking at California and how we intend to make massive cuts in greenhouse gas emissions.

So while we can concede that it's a work-in-progress, and will probably always be a work-in-progress, we can also see that we've laid out with considerable clarity, how we intend to decarbonize our economy between now and 2040 -- 2030, 2040, and that it

looks very good.

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And considering the gloomy news that we're getting on a daily basis now about how much faster the global warming worst-case scenario is proceeding than anyone had thought early on, I think it behooves us to take a minute and just say this was something really important, and it's good that we did it.

So thank you to everybody. Now, we should move on to the fun stuff, which is spending some of the resources that we have been entrusted with in the transportation area.

So I probably have some notes here. But the main important point to make here is that we have an opportunity now to spend over \$600 million in incentive program -- in incentive dollars this year. This is a one-time annual funding allocation. It's not ongoing funds that we can count on getting every year. Although the programs that are funded are programs that have a potential to continue, but we're looking at annual funding for low carbon transportation coming from the cap-and-trade auction proceeds, and the Air Quality Improvement Program, or AQIP, plus the two additional one time appropriations.

Collectively, it's almost twice as much money as we had available last year. It represents a very

significant investment in zero and near zero emissions technologies, and it places a priority on directing funds to disadvantaged communities, low income communities, and low income households to ensure that the cleanest technologies are deployed in the most impacted parts of the State.

Between today's action and other sources of funding that will become available, including the Volkswagen Environmental Mitigation Trust, as well as the new Assembly Bill 617 community emissions reduction incentive funding, new agricultural equipment incentives, the Board is going to be looking at over a billion dollars in air quality and climate change incentives over the next 6 months.

This is a phenomenal opportunity, and it also requires us to consider these investments very carefully to ensure that the programs are well coordinated. We will also need to be making recommendations for future funding amounts as we continue California's drive towards clean transportation.

So this is a really exciting opportunity, and it's one that is also one that we have to really be sure that we are pursuing this as carefully and as effectively as we possibly can.

Mr. Corey, will you please introduce this item?

EXECUTIVE OFFICER COREY: Yes. Thanks, Chair. And indeed, it is a tremendous opportunity here.

And as you noted, incentive programs are a critical part of CARB's comprehensive strategy to accelerate the introduction of the cleanest mobile source technologies complementing our regulatory programs. These incentives provides important early steps to transform the transportation sector to zero tailpipe emissions powered by the lowest carbon energy sources supporting the emission reduction strategies identified in the Climate Change Scoping Plan, the State Implementation Plan, the California Sustainable Freight Action Plan, and the ZEV Action Plan.

I think I'm just going to go right to Andy Panson from the Mobile Source Control Division to give the staff presentation.

So, Andy.

(Thereupon an overhead presentation was presented as follows.)

AIR POLLUTION SPECIALIST PANSON: Thank you, Mr. Corey. And good afternoon, Chair Nichols and members of the Board.

Today, I'll present staff's proposed funding plan for clean transportation incentives.

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AIR POLLUTION SPECIALIST PANSON: I'm going to start with a short overview of all of CARB's incentive programs to provide context for how today's proposal fits into the full portfolio, especially with all the new funds coming this year.

I'll then summarize the funding plan itself, going over goals and priorities, updates on past investments, the legislature's direction on how to use these funds, and our proposed project allocations.

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AIR POLLUTION SPECIALIST PANSON: The 9 programs shown here make up CARB's incentive portfolio this year. This fiscal year alone, there's over a billion and a half dollars. That's a tremendous increase compared to past years. However, to put that in context with the overall funding need, the South Coast Air District has estimated an incentive need for its region alone of up to a billion dollars a year. And similarly, the San Joaquin Valley Air District has estimated a \$22 billion need for its region by 2025.

Each of our incentive programs has its own statutory requirements, emission reduction goals, and eligible projects, making the portfolio diverse and far reaching.

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AIR POLLUTION SPECIALIST PANSON: These different programs fit together to address a multitude of needs.

Our challenge is to design each program so that it complements and does not duplicate others.

Guiding policy goals include:

Advancing technologies to meet California's long term air quality and climate change goals by transforming the transportation sector to zero and near zero emissions;

Improving access to clean transportation for all Californians;

Supporting sustainable freight;

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AIR POLLUTION SPECIALIST PANSON: Turning over the legacy fleet for the SIP, toxics reductions, and community level reductions; reducing agricultural sector emissions; and investing in the disadvantaged and low-income communities and low-income households, a goal shared among all of our incentive programs.

You can see from these 2 slides that there is an intersection in the goals that each program addresses. However, there's also some clear separation. The funding in today's proposal comes with statutory direction that allows us to uniquely target key objectives that other programs are not as well suited for.

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AIR POLLUTION SPECIALIST PANSON: This funding covers our primary -- this funding plan covers our primary funding for transformative technologies at their very earliest stages with an ability to fund those technologies just coming to market.

Today's plan also covers our primary funding for light-duty vehicles, and transportation equity projects. In this space, there's very little overlap with other programs.

I'll contrast that with the 3 new programs the Board will consider next spring, the Volkswagen NOx mitigation trust, the AB 617 community emission reduction incentives, and the agricultural incentive program. These primarily focus on heavy-duty fleet turnover to the cleanest commercialized technologies, with the scrap component embedded in most projects, at least in how they'll be implemented this budget cycle.

And that generally leads to funding technologies that are a bit furthermore down the commercialization path than today's proposal.

While there's an intersection across programs, particularly in the freight sector, the freight projects we're proposing today, with an emphasis on technologies just coming to market, would not fit as well in most other programs. Of course, there will be increasing overlap in

future years as new technologies continue down the commercialization path, but we re-evaluate our investments annually to ensure that programs remain complementary.

And this coordination extends to how our funds complement other State and local investments. Other agencies have a lead on transportation-related investments in infrastructure, low-carbon fueled production, active transportation, and workforce training among others.

Accordingly, these are not a main focus of CARB's incentives.

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AIR POLLUTION SPECIALIST PANSON: With that background, let's move on to the funding plan.

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AIR POLLUTION SPECIALIST PANSON: We're using these incentives to support the long-term transformation of the fleet called for in the Climate Change Scoping Plan, the SIP, the Sustainable Freight Action Plan, and the Short-Lived Climate Pollutant Strategy. We also use them to improve access to clean transportation and invest in disadvantaged and low-income communities.

This year's proposal -- this year's proposed projects, in most cases, continue and build on investments from previous budget cycles that were envisioned as multi-year projects. That really is a central theme to

this year's plan.

We're, of course, incorporating refinements based on lessons learned and the recommendations of our SB 350 study on overcoming barriers to clean transportation.

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AIR POLLUTION SPECIALIST PANSON: Since we're building on past successes, let's review how our investments are making a real difference in the California fleet.

The over 200,000 zero-emission and plug-in hybrid passenger car rebates we've issued are really helping grow the market. These vehicles now make up over 4 percent of new cars sales in California. And we're bringing more low-income participants into the program with increased rebate amounts and more focused outreach.

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AIR POLLUTION SPECIALIST PANSON: Our equity projects continue to grow as well. We've helped over 2,000 low-income Californians scrap their old cars and replace them with advanced technology vehicles, and we'll expand scrap and replace to new regions in 2018.

A new car share program is up and running in Sacramento, and the Los Angeles car share will launch early next year. We're also about to award care-share funds to additional communities.

A statewide consumer assistance financing program will also launch in 2018. This will help low-income consumers make clean-car purchases for both new and used cars, including those who don't have a car to scrap.

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AIR POLLUTION SPECIALIST PANSON: We've seen tremendous growth in the clean truck and bus market. With 4,000 vouchers reserved or issued and over 1,000 different fleets participating. The number of manufacturers and eligible vehicles keeps growing far faster than we would have envisioned just a year career or two ago.

There are now over 20 manufacturers offering 60 eligible models in HVIP. And this includes two Class 8 truck models that were added to the program this year.

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AIR POLLUTION SPECIALIST PANSON: Through our heavy-duty pilots and demonstration projects, we're funding zero emission trucks, transit buses, and school buses serving disadvantaged communities, as well as cleaner school buses for rural communities.

The first of these vehicles are now on the road. Drayage truck and freight demonstrations continue at the major ports and at several freight facilities in the Inland Empire.

To date, over 30 percent of our low carbon

transportation funds have been spent in disadvantaged communities, and over 60 percent have provided benefits to these communities.

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AIR POLLUTION SPECIALIST PANSON: Now, let's move on to this year's funding, and take a closer look at how each of the four related funding sources covered in the plan.

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AIR POLLUTION SPECIALIST PANSON: As you'll recall, we've prepared a joint funding plan for low carbon transportation and AQIP in each of the past four budget cycles. This year, we're also including two related one-time appropriations.

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AIR POLLUTION SPECIALIST PANSON: The focus of the Low Carbon Transportation Program continues to be accelerating the transition to low carbon passenger and freight transportation with a priority on providing health and economic benefits to California's most disadvantaged communities.

This year, the legislature appropriated \$560 million with a direction to build upon the projects launched in previous years. As part of that appropriation, the legislature provided \$140 million for

CVRP, and extended the income limits established last year.

There's also \$100 million for transportation equity investments including the direction to invest in the projects listed on this slide.

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AIR POLLUTION SPECIALIST PANSON: For the heavy-duty and freight sector, the legislature appropriated \$180 million for clean truck and bus vouchers through HVIP, with funding available for hybrid, zero-emission, and low-NOx technologies.

Finally, there's \$140 million for advanced freight equipment. Freight projects have been unfunded in past years due to budget limitations. And this significant increase will enable us to make some key investments called for in the Sustainable Freight Action Plan.

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AIR POLLUTION SPECIALIST PANSON: The budget also includes \$28 million for AQIP projects that reduce criteria pollutant and toxics emissions from mobile sources. We'll continue focusing AQIP on projects that don't fit well in low carbon Transportation because greenhouse gas reductions is not their primary focus, and we're proposing that most funding go to our Truck Loan

Assistance Program.

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AIR POLLUTION SPECIALIST PANSON: The next category is \$25 million in Volkswagen settlement funds from the California-only 3-liter engine partial consent decree. This is separate from the over \$400 million NOx mitigation trust that the Board will consider next spring.

These settlement funds are for the ZEV-related aspects of vehicle retirement programs. When the legislature appropriated these funds to us, it provided specific guidance on how to spend them. The legislature specified that a portion should be used to support the expansion of the EFMP Plus-Up Program statewide, including developing a tool to improve program efficiency, and verify participant eligibility, as well as to increase community outreach.

Our proposal addresses this direction with both funds directly for EFMP Plus-Up to expand its reach, funds for financing assistance, and a new one-stop shop to help low-income Californians access these programs.

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AIR POLLUTION SPECIALIST PANSON: Finally, the legislature appropriated \$50 million in one-time funding for new zero and near zero emission warehouse program.

Per statute, these funds are to be used for a competitive

funding program with a requirement for a one-to-one match resulting in \$100 million in projects.

The legislature directed us to develop this program using our funding plan process, so these funds can be coordinated with the low carbon transportation funding to expand the reach of both.

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AIR POLLUTION SPECIALIST PANSON: To translate this budget direction into project level allocations, we re-evaluated our existing projects, considered anticipated demand and technology readiness, reviewed the long-term planning elements of previous funding plans, and examined other funding sources, and of course considered public input.

Today's proposal was shaped by input received at two public workshops, 15 more focused public workgroup meetings, and many additional one-on-one meetings with interested stakeholders.

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AIR POLLUTION SPECIALIST PANSON: There's a total of \$265 million for light-duty vehicle and transportation equity projects. This continues our focus on investments in CVRP to support broad ZEV deployment coupled with equity focused-investments to increase access to clean transportation for low-income households, disadvantaged

communities, and low-income communities.

These equity projects provide important co-benefits beyond just the environmental and public health benefits. These help increase access to ZEV's as a mobility option, increase transportation reliability, improve connectivity, reduce transportation costs, and provide economic benefits for California's disadvantaged communities and low-income citizens.

This year, there's an emphasis on incorporating the recommendations of our SB 350 study.

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AIR POLLUTION SPECIALIST PANSON: This funding should meet anticipated CVRP demand for the year, with the -- and with the ability to direct equity funding to support low-income rebates, we will ensure continuous funding for low-income applicants, even if we have a late budget next year.

We're proposing no major changes to CVRP. The launch of the RebateNow pre-qualification element early next year, and expanded community outreach are the most notable enhancements. As the market continues to grow, we will need to refine and better target this program, and we expect those discussions to be an integral part of next year's plan.

We'll continue to grow our car scrap and

replacement; car sharing, van pulls, and mobility options; financing assistance; and rural school bus replacement. This year's equity investments build on the \$60 million for scrap and replace and \$20 million for other equity projects from last year's plan that we're still in the process of rolling out.

One key focus will be building up our new financing assistance program. In addition to helping low-income Californians access scrap and replace and CVRP, it will help people buy cleaner used cars through better loan terms and vehicle price buydowns, including for those who don't have a car to scrap.

We're focusing on making these incentives easier to access and increasing awareness. These are 2 key recommendations from the SB 350 study.

We're excited to add a new one-stop shop for equity incentives, which will provide a single application tool for consumers and increased community level outreach to bring more people into these programs. Other State agencies, like the Strategic Growth Council, Energy Commission and PUC are exploring similar approaches, and we're working closely with them with a longer term goal of having one-stop shops that cover a portfolio of transportation, clean energy, and housing incentives.

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AIR POLLUTION SPECIALIST PANSON: This next slide shows how we propose allocating the heavy-duty incentives with increased funding for clean trucks and buses through HVIP, advanced freight equipment and truck loan assistance.

Collectively, these investments support a broad range of clean and efficient technologies with opportunities for battery electric, fuel cell, hybrid, natural gas, and clean diesel engine technologies, as well as engine and system efficiency improvements, and encouraging the use of low-carbon renewable fuels.

It includes support for technologies, along the commercialization spectrum with funning for demonstrations, early commercial pilots, vouchers, and loans for commercially available technologies.

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AIR POLLUTION SPECIALIST PANSON: As I noted earlier, there's been tremendous growth in the clean truck and bus market over the past 2 years, an indication of the success of our investments to support early commercial deployment.

With nearly \$190 million allocated to HVIP and low NOx incentives, we anticipating -- anticipate meeting demand for all eligible technologies through and beyond the 2017-18 budget cycle. As part of our demand

estimates, we considered potential forthcoming technologies expected to come to the market this year, such as the new 12-liter low-NOx engine.

Changes this year include revising some voucher amounts to better reflect incremental costs, and adding the ability for fleets to get infrastructure funds as voucher enhancements to support zero emission truck and bus purchases.

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AIR POLLUTION SPECIALIST PANSON: This biggest change this year is the significant and much needed increase in freight funding. There's \$190 million available between the low carbon transportation and Zero and Near Zero Emission Warehouse Program funding. This compares to \$40 million last year.

There are two complementary elements to our freight proposal. First, there's \$40 million for new a statewide freight equipment voucher project, sort of like an offroad HVIP. This will provide purchase incentives for new commercially available zero emission yard trucks, cargo handling equipment, transportation refrigeration units, and other freight equipment.

Second, there's \$150 million for large scale transformative freight facility projects with a disadvantaged community focus. This will be for

warehouses, ports, distribution centers, railyards, and other freight facilities that want to holistically overhaul their operations with the cleanest equipment in vehicles, supporting infrastructure, and efficiency improvements.

This is intended to showcase the potential and viability of upgrading freight facilities and operations to the cleanest equipment.

We've received comments that limiting this funding solely to facilities in disadvantaged communities is overly restrictive and we expect you'll hear public comments on that today. We believe there's merit to these comments, and that additional flexibility is in order to ensure greater opportunities for participation.

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AIR POLLUTION SPECIALIST PANSON: I'd also like to briefly note that we incorporated into this year's plan a 3-year roadmap for heavy-duty technology investments. This complements the 3-year strategy for CVRP and light-duty vehicle investments we included last year.

These 3-year evaluations communicate how the annual investments in each funding plan fit into our multi-year vision for incentives and how they help advance technologies.

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AIR POLLUTION SPECIALIST PANSON: There's a statutory requirement for the State to invest auction proceeds in disadvantaged communities, low-income communities, and low-income households. These are specified in Assembly Bill 1550.

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We're designing the investments in this plan to maximize benefits to AB 1550 populations to help ensure that the State meets its overall investment targets. We do this with a mix of projects that are targeted to disadvantaged communities, and low-income households combined with statewide projects that include elements to encourage participants -- or encourage participation by low-income -- by 1550 populations.

This includes higher rebate amounts for low-income households, higher voucher amounts for vehicles or equipments used in disadvantaged communities, and targeted outreach. The funding plan highlights actions that were taken to maximize AB 1550 benefits in order to exceed our investment targets. And we're not limiting this just to the low carbon transportation funds. We're designing investments from all funding sources to benefit underserved populations.

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AIR POLLUTION SPECIALIST PANSON: We're proposing two minor modifications to the funding plan document we

released last month. Both are administrative in nature.

I noted earlier that we'll launch a new \$40 million freight equipment voucher project. We had originally planned to start with a small scale pilot and then move to a larger voucher project in future years. With our revised approach to go directly to a large voucher project, we have \$5 million in 2016 funding that was originally allocated to the pilot and is left over.

We're proposing to reallocate these funds to the greatly oversubscribed rural school bus pilot where there's immediate demand.

In addition, this year's budget directed us to provide advanced payment of grants where necessary to ensure timely project implementation. We outlined our general approach in the funding plan. However, we're still working through the final details. When we wrap-up the exact language, we'll update the final funding plan and incorporate it into all grant agreements, and we request that the Board delegate this authority to the Executive Officer.

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AIR POLLUTION SPECIALIST PANSON: We've covered a lot of information here. So let me now summarize the proposal.

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AIR POLLUTION SPECIALIST PANSON: This year's plan builds on previous investments to reduce greenhouse gas, criteria pollutant, and toxics emissions by advancing the cleanest available technologies with a much needed increase in freight funding. These projects will continue to focus on achieving emission reductions in the disadvantaged communities that need them the most with an increased priority on community outreach to help people access our funds.

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AIR POLLUTION SPECIALIST PANSON: The suite of investments is part of our coordinated strategy to make progress towards multiple climate change and air quality goals. As shown here, we strive to identify and fund projects that achieve multiple co-benefits.

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AIR POLLUTION SPECIALIST PANSON: Before closing, I want to note that we report to the public on our progress in multiple ways. In each funding plan, we provide status updates and report project outcomes. We also report annually to the legislature on the auction proceeds investments that make up the vast majority of this funding, and we share ongoing progress on our CVRP and HVIP websites with lots of statistics on how and where these funds are being spent. All this date -- information

is downloadable for those who really want to dig into the data.

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AIR POLLUTION SPECIALIST PANSON: In conclusion, we recommend that the Board approve the proposed funding plan with staff's modification.

Thank you.

CHAIR NICHOLS: Unless anybody has questions, we should probably go to the witnesses. And I believe there's another page, so there's about 30 people who want to speak on this item. So I am going to suggest that we maintain the 2-minute limit.

But I'm also going to ask folks, you know, if you're hear to support the proposal, which is lovely, you know, you can give brief a advertisement for your particular agency or project, and why it's great, but I wouldn't spend -- you know, you don't need -- you don't need a lot of time for that.

And if you're here to oppose or have concerns, then try to be as clear as you can, and as quick as you can about what it is that, you know, you think should be changed about the -- about the plan as it currently exists.

I think we have a need to have a discussion at some point, but not necessarily as part of the adoption of

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   the plan about how we're getting the information out to
   those who are potential eligible for the funding. I feel
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   like we still need a new way of illustrating what people
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   could even think about applying for. You know, you are in
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   a community. You are in a -- you're in a transit
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   district. You are a fleet operator. You are a person
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   who's shipping goods, whatever it is. You'd like to clean
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   up your fleet, what can you apply for, when, how, and all
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It looks like I'm getting a head nod from Mr.

Roberts first. I'll let him speak, or you just agree.

BOARD MEMBER ROBERTS: You're on roll. And I agree with you, and I didn't want to stop you.

CHAIR NICHOLS: Oh, okay.

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of that?

BOARD MEMBER ROBERTS: I had a question of staff before you start it.

CHAIR NICHOLS: Okay. Well, they why don't you go ahead and ask the question.

BOARD MEMBER ROBERTS: Yeah, I just have a quick question.

CHAIR NICHOLS: Yeah.

BOARD MEMBER ROBERTS: And that is simply, and all of these things look good, do we have a projected performance criteria that's in terms of dollars per ton, how these compare to anything that we're doing?

AIR POLLUTION SPECIALIST PANSON: Yes. We actually -- we have a whole appendix quantifying the projected benefits of these projects, both in terms of the engines and vehicles funded and the corresponding emission reductions. We also talk about co-benefits more qualitatively, so we do have on a project-by-project basis, we quantify and communication the cost in the reductions.

I will note that with these advanced technology investments where we're really trying to do, in some cases, pre-commercial demonstrations, the very earliest commercial pilots, cost effectiveness is not the main driving metric. It's really bringing new technologies to the market, increasing economies of scale, so that in future years, they can really be cost effective. So we provide that information where we -- you know, we do communicate that, but considering cost effectiveness is really just one of multiple parameters.

BOARD MEMBER ROBERTS: No, I understand that, and I'll find that in the appendix somewhere.

AIR POLLUTION SPECIALIST PANSON: Okay. It's -yes, it's the first -- very first table in the appendix -BOARD MEMBER ROBERTS: Okay.

AIR POLLUTION SPECIALIST PANSON:

-- Appendix A, Table A1.

CHAIR NICHOLS: Dr. Sherriffs.

BOARD MEMBER SHERRIFFS: Yes. Similar to your concern. Well, it's the -- it's the marketing issue. And one is reaching people, but the other is also branding this, which is part of marketing, but also branding because we want to be sure that the taxpayers know -- know the good ways that this is being spent, and also when people see electric cars, you know, understanding what's possible. And that's an important way of building.

So, yeah, maybe not for now, but definitely the issue of marketing and branding are very important. And this is a big opportunity. This is a big billboard, \$660 million billboard. My goodness.

AIR POLLUTION SPECIALIST PANSON: Yeah, we know we can and need to do a better job with that. There's been a lot of action in the past year to both communicate successes across the State's -- all of the State's cap-and-trade auction proceeds investments. We've stride to beef up our website. We have a new Moving California website. We know we need to do better. We're embedding in every project here more -- increased community outreach both to let people know about the programs, let people know about the technologies, how they can work for them, and make sure that we broadcast and advertise our success. We know we -- we see the need. We agree. We can and will

do more and do better.

BOARD MEMBER SHERRIFFS: I love seeing the Clean Idol medallion on the trucks as I pass. I wave at the truckers. I'm not sure they know why I'm waiving, but... (Laughter.)

witnesses, since I can is that there are several who have this issue as their concern, and it's -- you should address the question of your proposal to deal with the concern about facilities that are partly in and partly not in disadvantaged communities, and how we would propose to fund them. Because we had a letter, which was passed along by Assembly Member Garcia from 21 members raising their concerns about a seemingly arbitrary line drawing that could potentially disadvantage some of the facilities that are most in need of our attention, and where we want to be concentrating the cleanest vehicles. So do you want to speak about that?

AIR POLLUTION SPECIALIST PANSON: Okay. Sure. First of all, let me just try and frame the issue. We have a lot of money for the freight facilities projects, \$150 million. We have two parallel goals for funding. We want to make sure we fund -- we select the best overall mix of projects that are going to advance technologies, reduce emissions, cover a broad range of facilities, a

broad range of operations, and a broad range of equipment types and regional diversity.

At the same time, we want to maximize disadvantaged community benefits. That's been a consistent direction from the Board, and it's -- it's a direction and requirement of the auction proceeds guidelines. Because there's a lot of funding, we realize that requiring 100 percent of the funds to be spent in disadvantaged communities was -- is overly limiting. I think we probably reached a little too far on that.

And we think some flexibility is definitely in order and would provide better opportunity for participation, and would really improve the program -- the project overall.

We can look to passed funding plans for approaches that have worked -- worked for us. For example, in the 2015 Zero Emission Truck and Bus Pilot, we required that at least 75 percent of the funds be spent benefiting disadvantaged communities and we provide a scoring preference to projects that were -- that were benefiting disadvantaged communities, but we let anyone apply. That worked out really well. And I think that's an approach that would work.

There's also some flexibility in how we provide scoring preference. I said we provide scoring preference,

you know, to projects that were in disadvantaged communities. We have an opportunity to, I think, for flexibility to be a little pragmatic here. situations where you have a facility that's partially in or partially out of a disadvantaged community or facilities that are immediately adjacent to a disadvantaged community, we can provide scoring preference to those as well.

- We can, and we think we should. We think that would make sense. I think one of the issues that was brought to light was the Port of Oakland, where half the port is in, half the port is out. I don't think there's anyone who thinks a project at the Port of Oakland doesn't meet the spirit of AB 1550.
- So we think a combination of allowing some fraction of the funding to be spent outside of disadvantaged communities and providing -- take a pragmatic approach for how we -- how we give scoring preference would really work. It really would improve the overall project.

And then I just want to say -- say on thing to be clear. We can be pragmatic in how we give scoring preference. When we report outcomes, we're, of course, going to follow the funding -- the guidelines for all administering agencies -- or all the agencies that

administer auction proceeds. And so if a project doesn't meet that criteria, even if it's a good project that had a lot of benefit, we're not going to -- we're not going to claim it as an AB 1550 benefit, but we think we'll feel good about funding it, and we think it would be the right project to fund. And I think that approach would really improve the proposal that we brought to you.

BOARD MEMBER GIOIA: Madam Chair, Can I make a comment?

CHAIR NICHOLS: Yes.

BOARD MEMBER GIOIA: Because I have an alteration of that, because I don't think -- I think your spirit is there, but it's not clear. There's clear precedent for this issue. You create two categories. Money spent in a disadvantaged community, and then money spent to benefit a disadvantaged community. Because the issue here, if you look at the maps -- I'll talk about the areas I'm familiar with, Port of Oakland, Port of Richmond -- they are located just -- some of the port, just outside the disadvantaged community, but there's no argument that the investments there will benefit the disadvantaged community.

And as we recall, there's been legislation on cap and trade that said -- on other cap and trade funding that said spend X percent in a disadvantaged community, and

then spend X percent to benefit a disadvantaged community, and then you define what it means to benefit a disadvantaged community.

I think -- I don't think getting into scoring this and that. We should just define what it means to benefit a disadvantaged community. And there was -- again there's specific precedent. Remember, a lot of the sustainable communities funding fell into this category, where there was housing and transportation-related funding investments in cap and trade, and they defined what it meant to benefit a disadvantaged community because you don't want to extend it out with all this indirect benefit.

So maybe that's the answer here. Because the way it's worded now, it has to be spent in the disadvantaged community. And if the port is located just outside, even though impacts the disadvantaged community, that's adjacent, it's potentially not eligible.

So that's my suggestion as a way to think about this. And there's precedent for doing it, and just define, so all of the money can be spent either in or to benefit a disadvantaged community, assuming that was the spirit of the concerns.

And what I heard from even some of the ports, who raised this issue, you know, they're adjacent to the

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disadvantaged community. So that's -- and then you can come up with the definition of benefit, and usually it's by clearly getting an air quality benefit to the community.
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AIR POLLUTION SPECIALIST PANSON: I think I probably -- I may have answered the question a little too succinctly for the sake of time, because when I was talking about projects that are adjacent to, I was really actually building off a conversation that we had earlier in the week.

BOARD MEMBER GIOIA: Yes, right. Right.

AIR POLLUTION SPECIALIST PANSON: And I -- the way you defined that is exactly how we were seeing it. I just kind of answered it a little too quickly.

BOARD MEMBER GIOIA: Yeah, I just think using the term then "benefit", because that's how you then score it, right? You're going to score it based on the objective criteria of how you define benefit, right?

AIR POLLUTION SPECIALIST PANSON: Right.

BOARD MEMBER GIOIA: Yeah, we're saying the same thing.

AIR POLLUTION SPECIALIST PANSON: So we would say -- when I said partially in --

BOARD MEMBER GIOIA: Right. Right.

AIR POLLUTION SPECIALIST PANSON: -- or adjacent,

we would mean something like the zip codes that -- BOARD MEMBER GIOIA: Right.

AIR POLLUTION SPECIALIST PANSON: -- contain a disadvantaged community, so --

BOARD MEMBER GIOIA: Right. But you would want clear direction from us?

and -- but -- let me say one more thing. I think that just limiting it to those areas that are adjacent or benefiting, as you define it, still doesn't quite provide enough flexibility, because some of the people who are going to comment are -- you know, will make -- there are ports and freight facilities that, you know, don't meet that --

BOARD MEMBER GIOIA: Um-hmm. Um-hmm.

AIR POLLUTION SPECIALIST PANSON: -- that requirement, and they should still have some opportunity to --

BOARD MEMBER GIOIA: Right.

AIR POLLUTION SPECIALIST PANSON: -- participate.

And that's where we think the -- making sure the vast majority of the funds are in the disadvantaged community or meet the broader definition you came up with, but we think there should also be an opportunity for some that even still fall outside of that.

BOARD MEMBER GIOIA: Would you suggest that we set then a percent? I'm just picking a number. I'm going to say if we said 90 percent must be in or to benefit a disadvantaged community. That way, what I could hear from the disadvantaged communities, is if you don't specify the percent, because here we're going from 100 percent in a disadvantaged community to something that's flexible. But if we set a maximum cap for in or to benefit, at least you know what's available as potentially as a high priority project outside those areas.

AIR POLLUTION SPECIALIST PANSON: Yeah, I think that -- I think that makes sense.

BOARD MEMBER GIOIA: Okay. We'rr hear from the comments. Okay.

Thank you.

CHAIR NICHOLS: Okay. Let's go to the list then. The list beginning with. Mike Neuenburg. Yes, there you are. Hi.

MR. NEUENBURG: Hi. Good afternoon, Madam Chair Nichols and to the ARB CARB Board and staff. I know it's been a long afternoon, so I'm going to keep this short.

My name is Mike Neuenburg, and I'm with the Sacramento Metropolitan Air Quality Management District.

I'd like to take a moment to say thank you for the opportunity to speak to all of you today in support of

the proposed fiscal year 2017/2018 funding plan for clean transportation incentives. The district believes this is an excellent opportunity and looks forward in working with CARB to put these funds into the community to reduce emissions and keep California at the cutting edge of clean transportation.

Sacramento, as already discussed in the slides, has had 2 programs that we've successfully implemented from cap and trade, which is the Electric School Bus Program and the Our Community Car Share Program. And we are in the middle of implementing those projects, and we have many -- electric cars are out and the electric because many of them are out as well.

As CARB's greenhouse gas funding of efforts, efforts evolve and grow. We believe a new approach is necessary. We believe it is imperative that these State funds are distributed equitably throughout the State.

Mobile sources are the single largest source of greenhouse gas emissions. Vehicle technology projects that reduce greenhouse gases also reduce ozone precursors and toxic emissions. Cap-and-trade funding is an important tool to help us do that.

The current solicitation processes are not efficient using valuable lessons learned from successful incentive programs, like Prop 1B and Moyer. We're

confident that air districts can work with CARB in a fully public process to establish streamlined guidelines that would help meet the State's goals in distributing these funds efficiently and equitably.

The air districts are deeply experienced in managing multi-million dollar incentive programs. We can get the funds out efficiently and quickly. Sac Metro Air District has partners lined up through our work on other incentive programs.

I'd like to take time to thank you for the opportunity to speak to you today, and I would request you please consider these points as you move forward with the plan for clean transportation incentives.

Thank you.

MR. PEEPLES: Chair Nichols, member of the Board, My name is Chris Peeples. I'm a publicly elected at-large director of the Alameda Contra Costa Transit District. And I'm here today with my general manager Mike Hursh, who will speak next, and Julie Waters our legislative person who now has taken over the portfolio of ZEV.

I want to talk to you a little bit about what we're doing, but then talk about three reports that I think bear directly on the issue you're talking about today. As you know, we have the largest fleet of fuel cell buses in the world. We've been doing that for about

12 years. Thanks to you, we have another 10 on order. We have battery electric buses on order, so we will have the same model bus in diesel, diesel hybrid, fuel cell electric and battery electric, and can do some comparisons.

In response to what you have done, we have prepared one and are in the process of preparing two more reports. The -- what we approved at our Board meeting last night, so it's hot off the presses, is a clean corridors plan. What our planning staff did is they overlaid the CalEnviroScreen on our district, then analyzed all the routes that were within the disadvantaged communities, came up with four corridors, including one that goes all the way through Supervisor Gioia's district, and then tried to figure out how much it would cost to electrify them.

The good news is it's doable. The bad news is using very conservative numbers, because they assume prices weren't going to go down, it's about a quarter of a billion dollars for four corridors in one transit district.

Now, we've got two more reports coming, which we'll bring up to you as soon as we do it. And I know our staff and consultants are talking to your staff. We have a ZEV report coming on zero emission buses that's going to

try to take a very deep look at the different technologies, and their capabilities, and look at what's going to happen to their capabilities and costs over the next 5 or 10 years.

Then we have a facilities utilization plan where we're going to try to figure out what it would take for our facilities to turn them into, instead of 200 diesel buses, 200 ZEV buses.

CHAIR NICHOLS: Than you.

MR. PEEPLES: So those will be coming and you'll see what those costs are.

CHAIR NICHOLS: Your district has been at the head of the curve on all of these issues. And we look to you to give us more.

So thank you.

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MR. HURSH: So that's an excellent segue for me.

I am Mike Hursh, the general manager and CEO of AC

Transit. We are committed to expanding our zero-emission fleet. I want to talk a little bit about philosophy today to help you make your decisions.

What you're doing today, and I really want to compliment staff, the ability to spread one stick of butter over 100 slices of bread is amazing and they have done that.

(Laughter.)

MR. HURSH: They've done an excellent job of distributing what -- preparing a budget that will help all of our communities. However, I have to caution you, SB 1 is not a done deal. There's a very active measure, two active measures to recall SB 1. SB 1 does not solve all our problems. We're proud of it. We appreciate it. It helps, but it's not guaranteed.

The \$663 million that you have on the table today, I really don't want to sound like a Sourdough Sam -- too many bread references -- but I want to put in perspective that if that money went entirely to public transit bus replacement, it would replace perhaps 800 of the 18,000 of the publicly-owned buses in the State of California.

What you're doing here today is incentivizing. That will make the change that you want happen. By finding funds and making them available, the change will happen. I would encourage you to focus your regulatory efforts on those for-profit businesses. I appreciate that you have warehouse and freight money in here, but remember that those warehouses and freight haulers carry oil, they carry Amazon packages, they are for-profit companies.

Face your regulatory efforts on them, focus your incentive monies on public agencies that bring the community good.

Supervisor Gioia said it best, measure the

effects on community benefit. Public transit benefits our economy, it benefits our environment, it benefits our citizens. This is 663 million will help, but unfortunately it's a drop in the bucket.

Thank you for your hard work. Please find more money and we promise to expand those fleets.

CHAIR NICHOLS: Thank you.

MR. ZOBEL: Good afternoon, Chairman Nichols,
Vice Chairman -- Vice Chairman Berg, members of the Board
and staff. My name is Bill Zobel, and I'm the vice
president of business development, marketing, and customer
care for Trillium. Trillium is a subsidiary of the Love's
family of companies that operate over 400 travel
hospitality centers across the United States.

We have 9 of those here in California, and we're building another 8 over the course of the next 2 years.

Trillium itself operates over 180 alternative fuel stations throughout the country with 48 of those here in California.

We are here to fully support California's transition to a lower carbon fuel economy. Trillium is working to expand our affiliated networks in all areas across the State, including the State's ports, freight corridors, commercial hubs -- and commercial hubs.

This expansion includes stations which will

provide renewable natural gas, hydrogen, and electric vehicle charging for both commercial fleets and the general public.

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We support the State's commitment to funding a lower carb -- lower carbon fuels, and today's plan is a testament to that resolve.

These public funds are important to secure, and I'll put this in quotes, a fully commercialized clean transportation market, which is absolutely required to feet the long-term goals of the State.

We believe, however, that to truly see a widespread and self-sustaining -- self-sustaining commercialization of low carbon fuels in California, it requires a more innovative approach to providing incentives. One that goes beyond the current array of disbursement programs that were listed in the slide that was put up earlier.

The process needs to be a holistic one and focus on -- really on the longer term goal and how we get there. We believe that to successfully put renewable natural gas, hydrogen, and heavy-duty electric fleet vehicles on a path to full market commercialization requires a continued and substantial investments in ways that actually move the market.

Mechanisms that are market based that garner the

attention of a commercial enterprise in ways that actually facilitate real change, behavioral change, and provide enough sufficient -- sufficient scale to lift the market and ultimately exceed California's ambitious carbon reduction goals.

VICE CHAIR BERG: Thank you so much. We need you to wrap-up, please.

MR. SOBEL: This is it. Yeah, so anyway, just we support this. Today is the day to celebrate what we've done here and where we're going. And we want everybody here to think about the next generation of incentive programs, and how we get these programs eventually off the government dime, and into full commercialization where they're actually support and sustain themselves.

Thank you.

VICE CHAIR BERG: Thank you.

MR. SCHUCHARD: Good evening, Vice Chair Berg and members of the Board. Ryan Schuchard with CALSTART. As many of you know, we've worked closely with ARB, particularly, Luci and this team over the last year on the medium and heavy duty 3-year plan. Spent a lot of time with the team. And, in summary, really commend the team and thank them for their hard work.

The overall funding plan we think is good. It supports the GHG trajectory we need over the next, not

only 3 years, but looking out to 10 years and beyond. And we say that with the recognition that the technology landscape is changing fast.

Just yesterday, Cummins Westport had their
9-liter low-NOx engine approved, which makes their 2018
offering for that heavy-duty vehicle only low NOx. Also,
last year, I'd be surprised if many people know -- or,
excuse me, yesterday, I'd be surprised if many people know
this, Thor Trucks launched a Class 8 electric truck, after
Tesla did one a few weeks ago.

So with that in mind, we like the funding plan for a few reasons. One, it provides a technology context that takes advantage and understands the fast investments happen and the changes and the uncertainty that is happening. Number 2 is has a beachhead model that focuses where we're going to see the greatest investment propagate the fastest. And thirdly, it commits to ways of research and development in a structured way that focuses on zero emission, low NOx, and efficiency.

So just to close, I said great things about the staff, so I won't say more, because we really think they've done such a great job. But we do have one concern. Its -- there's a significant amount of funding on the table this year. But that really just matches what we've asked for in the 3-year investment plan for a year.

And we're encouraged by that appropriation.

But a key issue is going to be ensuring that the waves of investment that the funding plan suggests need to be developed are invested in. So we need to work together to make sure the legislature understand that and we need a mult-year framework.

I'll leave it that. Thank you very much.

VICE CHAIR BERG: Thank you very much.

MR. HEADLEY: Rod Headley, owner and president of Central California Power.

Raul Portugal is going to follow me on the school bus program. And we are looking at doing repowers on school buses for half the price of a new bus. So that money would go a lot further. I know Mary is all in for that. Unfortunately, she's not here. Left. I got too late.

But anyway, that is one of the programs. But really I wanted you folks to put a face to some programs I'm going to send you, some common sense programs that we feel would reduce emissions immediately. And a lot of things that have been overlooked, gas injection into diesel engines on over-the-road trucks, which is a great, great program I worked on for 5 years, and now I got back into it again, catalytic converters for industrial mowers. How many people here mow their own loans -- lawns?

Giving away --

VICE CHAIR BERG: I have one.

MR. HEADLEY: Giving away electric mowers doesn't really help the problem. One industrial lawn mower, 1 hour of running is equal to 8 hours of any car running. So there's a big pollution removal there. And a lot of things that are out there that are cost effective. For instance, the ag replacement tractor program killed us for repowers four about 3 years. But we've got a lot of industrial construction equipment out there that can't be replaced. We're getting that program put back in place. Raul has been talking to Seyed, and certain people. So we're getting that done.

So there's a lot of pollution that we've been -when we were doing the repowers, we normally did 1500 tons
of NOx and 40 tons of particular matter a career. So
anyway, you've seen the face.

VICE CHAIR BERG: Thank you. And we'll look forward for your information.

MR. PORTUGAL: Good afternoon, Vice Chair, Board member and fellow airheads that came out today --

(Laughter.)

MR. PORTUGAL: -- thank you for sticking around.

My name is Raul Portugal, And as Rod mentioned, I'm with

Central California Power. I was at the last meeting in

Riverside where Ms. Nichols expressed her interest in spending as much as she could in school bus replacements or options for that.

And that kind of lighted a light bulb in my head. Through the Carl Moyer program we've done about 700 repowers in the last decade. And we currently service about half the school bus fleets in the San Joaquin Valley with most of those being in disadvantaged areas. And I have already started to work really closely with the CHP, DOT, and motor carrier specialist in identifying ways to repower school buses.

And from DOT, they're very excited of the possibilities that our engineers can come up with with the repower that's very simple. As Rod mentioned, we can repower 1 school bus for the cost of a fractional cost of a new one. And we really do expect to be able to do several hundreds of them. We can basically facilitate the process to spread that one stick of butter over three to four hundred pieces of bread, instead of just 100.

So we're just here for just to kind of introduce ourselves and let you know that it is possible, and there's other options that are very, very cost effective. And quickly going to figuring out how to market or advertise, I would like to suggest to the Board to reach out to the local air districts who already have the

programs in place, already have the contacts, and already have the resources available to maximize the spending, whether it's in grants or vouchers whichever way. They have the ways. And they've already been here before to express their interest of working directly with these incentives and the Air Board. So I just hope to see that very transparent.

Thank you.

BOARD MEMBER BALMES: Vice Chair Berg --

VICE CHAIR BERG: Yes.

BOARD MEMBER BALMES: Could I just ask Mr.

Portugal. You didn't actually say how you were going to repower the buses.

MR. PORTUGAL: So we would take out -- an example would be to take out an old Cummins engine. And most of them have Allison transmissions and we would just bolt on directly a newer Cummins engine, lower -- low emission, low NOx. School buses, the chassis, you know, from when you guys road the school bus, to I ride it, to my children ride it, it's still the same bus. It doesn't get anymore aerodynamic, or faster, or any nicer.

So the chassis, the -- a lot of the parts on the school buses are still in great shape, so we would work with DOT to identify the ones that are eligible for replace repowers and the older ones would be deemed for

replacement.

Thank you.

VICE CHAIR BERG: Thank you very much.

MS. PHILLIPS: Kathryn Phillips with Sierra Club California. For the record, I mow my own lawn with a push mower, and fortunately it's a small yard.

A couple of things. First, I want to thank the staff for the work they've done on this. And also, we really appreciate the fact that you're going from just doing a 1-year plan to a 3-year plan. Additionally, we like the increase in the amount of incentive that will be available through the bus and truck money for electrification.

We need to move towards electrification.

Listening to the school bus conversation, I felt like I was in 2010, instead of 2018. We need to get away from greenhouse gas emissions entirely, whether it's our RNG or NG, its's still methane.

So again, I want to thank you for this and thanks for the continued approach that encourages transit bus companies, transit bus agencies, and electric heavy-duty and bus manufacturers to continue the work they're doing.

MR. MAGAVERN: Bill Magavern with the Coalition for Clean Air. We support this plan. It's an excellent plan, and it had an extensive public process. I do want

to note that the \$255 million for community air protection that was also in the budget has had no public process so far, and we think that it should.

But on this funding plan, we're especially glad to see the amount of money dedicated to cleaning up the freight system, and also the amount dedicated to disadvantaged communities.

When it comes to the transportation equity projects that were established by the Charge Ahead California initiative, the most successful one has been the vehicle scrappage program that has been running in the San Joaquin Valley and the South Coast.

We think there's an element that is needed to scale up the program to enhance it, and also to expand it to other air districts, Bay Area, San Diego, and Sacramento. And what is needed is a coordinated customer data management platform that can help to facilitate outreach, customer transaction, and accurate record keeping. That would really provide a basis for making it easier for customers to get into this program, and getting more people into much cleaner vehicles.

And this system needs to be in place quickly to help spend the funding in this plan. So what we would propose is that \$2 million of the Volkswagen settlement funds be awarded in the next quarter via a competitive

solicitation that's open to the air districts, and to establish this project.

Thank you.

VICE CHAIR BERG: Thank you.

MR. DOUGLAS: Vice Chair Berg, members of the Board, Steve Douglas with the Alliance.

I'll brief. We appreciate all the staff's hard work. And make no mistake, this is a lot of hard work. We absolutely support the staff's proposal. We think they've struck a balance between stakeholder input, the legislative requirements, and this Board's direction. The -- this program, the Clean Vehicle Rebate Program is essential to the ZEV market -- to developing that market.

It's about putting more ZEVs in California, more ZEVs on California roads. That's what it's about, and this is critical.

Just a couple of other points. We're looking forward to the point of sale rebate. We think that's important to all customers, but it's really important to low income customers who can't -- who can't wait a month or 2 months for the rebate, so that's important.

Fuel cell vehicles are critical to the transportation strategy, and so we support staff's proposal on continuing those rebates as they are. Again, thank you very much for the staff's work on this and we

support the proposal.

VICE CHAIR BERG: Thank you.

MR. PIMENTEL: Hi again. Michael Pimentel with the California Transit Association.

So I'm just here to support this funding plan, and I want to peel back the curtain just a bit about what we're doing as an association. So in the lead up to the investment of cap-and-trade expenditure dollars, the Association was walking the halls of the Capitol asking for money for zero-emission buses.

And we did it because our members believe in ZEVs. Many of them want to move forward aggressively with deploying ZEVs, but the main impediment is funding. In fact, our specific ask was 470 million for the Zero Emission Truck and Bus Commercial Deployments Project. That wasn't satisfied, but we did get 180 million through HVIP with the specific carve-out for zero-emission buses of \$35 million. We appreciate that and we support it.

Moving forward, we are going to continue to support ongoing appropriations for zero-emission bus deployment. In fact, it's built into our 2018 State legislative program. That's going to be focused on HVIP. It's going to be focused on the zero emission truck and bus deployment project. But it will also be focused on the VW settlement.

I just want to remind this Board that we had submitted a request for 75 percent of the VW settlement to be directed to zero emission buses and trucks. Our preferred program is the zero emission Truck And bus Commercial Deployments Project.

And we like that because it's not just an investment in the buses themselves, but the charging infrastructure. And that's something I want to emphasize for this body. It's not just enough to say we're making investments to bring down the cost of buses. We need to, at some point, grapple with the cost of charging infrastructure.

It's high. It's prohibitive. It prevents a lot of agencies from making the jump into zero emission bus deployment. So again, I -- we support the funding plan, but we would urge this body also to think more broadly to the various components that are necessary to bring zero emission bus projects on line.

Thank you.

MS. NAGRANI: Hello. I hope you're all still awake. I know it's been a long day. I'm Urvi Nagrani from Motiv Power Systems. So the name is spelled wrong there, if anybody cares.

I'd like to first thank staff for a really wonderful, you know, very good investment plan. It's

getting a lot of programs that have been underfunded for the last several years, due to a lack of resourcing, finally are getting the amount of attention they should have gotten for the last several years.

So I, one, would urge this entire Board to put political pressure to maintain that level of funding, and 2, thank the staff for their work. Because it is so good, I get to be a little nitpicky. So a few quick things.

In terms of your proposed HVIP changes, I love the fact that you thought about infrastructure, the fact that you've added a voucher enhancement to cover the adoption of infrastructure for both hydrogen and ZEV vehicles will be wonderful for fleets who don't usually have sources to help with that.

Two, the bifurcation into types of buses with transit buses, school buses, and trucks leaves a hole where I don't know what to tell potential customers who want to buy a vocational vehicle, because it's not a traditional truck. And so those vehicles are very small volume, and the incremental cost is closer to what you would see in the funding levels proposed under the school bus amounts.

So if you could, for example, extend that to other types of vehicles. So if Winnebago wants to sell a blood mobile, we could say, hey, let's have a zero

emission blood mobile. I think every vehicle should have the ability to be zero mission vehicles. And I think HVIP has been the most broad stroke approach of the technology is ready, we will invest today. And I'd love to see that kept.

Secondly, the very last page of your proposed investment plans, you go into the question of how grants are administered. And I think this is a really, really important thing, because how you administer a million dollars is different than how you implement a multi-million dollar program, which is different than hundreds of million. And if we have the kinds of delays getting money out the door that we've had with some of the smaller programs, we will not get the air quality improvements on the timelines we need.

So streamlining that is essential. Thank you so much for your time.

VICE CHAIR BERG: Thank you.

MR. LOVELACE: Good afternoon, Board members and Vice Chair Berg. I'm Ed Lovelace from Ed XL Hybrids, XL is a leader in electrified commercial vehicles in North America, spanning Class 2 to Class 6 vans, trucks, and buses, and delivering conversion products at a rate of about 1,000 vehicles a year.

So overall, XL is very supportive of the ARB

staff's portfolio investment strategy, and their consultative approach in developing the funding plan. I just have two comments on the voucher programs. First, we agree with the overall voucher program elements, the funding levels, and appreciate the hybrid conversion voucher level increases this year.

While our business is not built on a strategy that always requires incentives, we appreciate the modest hybrid conversion incentives, because that allows us to expand our market to lower annual mileage fleets, and those fleets that have limited equipment capital.

Second comment. The advent of commercial clean vehicle voucher programs across the country that were started here in California with HVIP, we believe represent a best practice for developing a financially sustainable market.

But one of the biggest remaining problems is the lack of funding continuity in the these programs.

California has made great steps towards addressing that this year with a significantly largely HVIP budget, but we're still concerned about the tail-end of the funding next year and ensuring that buyers and sellers can continue to market the clean vehicle products and deploy those products. Nothing is more disruptive to growth of this new industry than having to stop and start marketing

to the fleets.

Once suggestion, and I'm sure it's not the only possible solution is to allow companies to continue selling and buying at their own risk that the program is renewed. I know there have been legal concerns about this type of strategy, but I request this conversation is renewed.

Thanks again for your leadership in the strive to clean air. Thanks.

VICE CHAIR BERG: Thank you. I just would like to do a time check for my fellow Board members. I think we have about less than 30 minutes to wrap this up, and we do have -- need a quorum, so --

BOARD MEMBER GIOIA: I will note that Dr. Balmes and I are leaving about 5:30 to catch a train, so we will be leaving 5:30 maybe -- it depends how fast we can walk or run to the train station.

VICE CHAIR BERG: Well --

BOARD MEMBER GIOIA: We're not running, we'll say that.

VICE CHAIR BERG: We need 8. Do we have 8? BOARD MEMBER SERNA: Not if they leave.

BOARD MEMBER DE LA TORRE: I'm here.

(Laughter.)

VICE CHAIR BERG: Okay. We have 8. So the

remaining 8 will tough it through. Okay. Thank you.

We could cut it down to 1 minute.

BOARD MEMBER GIOIA: And, we're taking faith that you're going to put the language in about benefit disadvantaged community, maybe we'll just hear a summary on that.

BOARD MEMBER MITCHELL: You'll have to stay for that.

(Laughter.)

VICE CHAIR BERG: Yes.

BOARD MEMBER SERNA: You can Facetime on your way to the station.

VICE CHAIR BERG: Do you have that information that he's looking at?

EXECUTIVE OFFICER COREY: I do. So what

Supervisor Gioia suggested was that -- and I think this

is -- and we were looking for the additional flexibility,

if -- for the allocation, if you're in or benefiting -
BOARD MEMBER GIOIA: Right.

EXECUTIVE OFFICER COREY: -- at 90 percent, and that provides, one, the flexibility to deal with these split situations like the Oakland Port that we talked about, it also puts us in a position where we're not just not even considering eligible those projects that are outside that could be really great projects. They have to

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compete well. They would have to if they're outside. But I think that is implementable, and provides us some flexibility really in the context of the solicitation to really get the best projects.
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BOARD MEMBER GIOIA: So you're saying 90 percent in or benefit disadvantaged community and then the 10 percent are the other high-value projects?

EXECUTIVE OFFICER COREY: And it doesn't mean 10 percent would be awarded.

BOARD MEMBER GIOIA: Right. Right.

EXECUTIVE OFFICER COREY: That means they're eligible for consideration.

BOARD MEMBER GIOIA: It's the minimum of 90 percent?

EXECUTIVE OFFICER COREY: Correct.

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BOARD MEMBER MITCHELL: So I think we could say that preference be given to that 90 percent.

VICE CHAIR BERG: No, not preference given. It will be.

BOARD MEMBER GIOIA: It will be 90 percent.

VICE CHAIR BERG: It will be 90 percent.

EXECUTIVE OFFICER COREY: It's a floor.

BOARD MEMBER GIOIA: Right, that's a minimum.

VICE CHAIR BERG: Yeah, that's a minimum.

BOARD MEMBER GIOIA: And by the way when we heard

from the Bus folks, just as an example, when there was previous cap-and-trade dollars to benefit, and it focused on some bus lines, if the -- in that case, if the bus line actually went through disadvantaged communities, that was defined as a benefit even if 100 percent of the bus line wasn't in the disadvantaged community, because it took, let's say, residents of that community to a job somewhere else.

VICE CHAIR BERG: Okay.

BOARD MEMBER GIOIA: So that was a benefit.

EXECUTIVE OFFICER COREY: That's correct. The cap-and-trade proceeds guidelines are written to reflect those scenarios. That's right.

VICE CHAIR BERG: And so, fellow Board members, were comfortable with that?

Okay. Great

Thank you, Supervisor Gioia.

Okay. Let's continue our testimony.

MR. LACAYO: Goo'd afternoon, Board members, staff. My name is Dona Lacayo. I'm the Chief Commercial and Public Affairs Officer at the Port of Hueneme, California. We would support that staff's description of adding flexibility to the eligibility criteria. Our port is located 50 miles north of Los Angeles in Ventura County, which was recently impacted by the horrible fires.

I'm here to advocate for the Board to consider allowing the Port of Hueneme along with all other California ports, 11 public sector California ports to be fully eligible -- eligible to apply for the incentive funds in the zero and near zero emission freight project category of the cap and trade funding.

The currently proposed funding plan excludes, for example, the Port of Hueneme from applying, because we show on a map that we are about 0.8 miles away from outside of the CalEnviroScreen of disadvantaged community criteria, so we are completely outside of that, but within a mile.

The Port of Hueneme has won 3 environmental awards in 2017 and we would like to continue to invest in our environmental framework, so we hope that you support us.

VICE CHAIR BERG: I think you should be pleased then with Supervisor Gioia's amendment.

MR. LACAYO: Yeah.

BOARD MEMBER GIOIA: If you can show a benefit. You'll have to prove that in your application.

MR. LACAYO: We will show a benefit. Yes. Thank you.

VICE CHAIR BERG: Thank you so much.

MR. JACOB: Thank you, Madam Vice Char, members.

Mike Jacob with Pacific Merchant Shipping Association.

And we represent ocean carriers and marine terminal operators at the Ports. The same concern, and we thank Supervisor Gioia and staff for working with us on the process and would support what Executive Officer Corey

We'd bring one other consideration to you too, which is there's also a 50/50 match, as the eligibility criteria in this funding. It doesn't need to be in there as eligibility criteria. It could also be dealt with through scoring. We'd recommend that it be handled that way as well. And then just for the record, this funding stream has the only technology restriction on it in the GHG Reduction Fund. It has to do with anti-automation language that was put in.

With respect to port operations alone, obviously, we oppose those. It's inappropriate and it's counterproductive to us achieving our long-term goals with respect to zero emissions.

And so when these funds come up in the future, we'd like to continue to work with you to oppose those types of restrictions.

Thank you.

just described as the solution.

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VICE CHAIR BERG: Thank you.

CAPCOA EXECUTIVE DIRECTOR ABBS: Good evening,

Vice Chair Berg and members of the Board. My name is Alan Abbs from the California Air Pollution Control Officers Station.

I'll keep this very short. I think this plan is a great plan to provide the criteria and toxics reductions that are going to be the focus of our AB 617 partnership that we have that we've started recently, and will be in effect for many years in the future.

and San Diego is great. HVIP is great. Sustainable freight is great. I'm a big fan always of the Rural School Bus Program, and I hope the Board continues to provide incentive fundings for the rural parts of the State. And we look forward to implementing the process with the ARB staff.

Thanks

VICE CHAIR BERG: Thank you.

MR. CHAVEZ: Board and staff, thank you so much for the proposed low incentive funding plan. I want to thank you. My name is Nicholas Chavez on behalf of the School Transportation Coalition and the California Association of School Transportation Officials.

So every bus makes a huge difference. It takes about 30 cars off the road. These are cars polluting the roads and also idling in front of schools where kids wait

to get picked up.

So real quick, I want to touch on one thing I heard early about repowers. We are very -- we want to get -- make the most bang for the buck on these buses. But at the same time, we don't want to put a Band-Aid on a 20-year old buses. And like I said in the report, there's about 5,000 school buses that still need -- that are very old and aging. And they're going to need to be replaced. So we're just con -- we're just a little concerned with how long those repowers will last on a 20-jeer old bus.

But we are encour -- you know, we do want to see the most bang for the buck. Last point I wanted to make is that 50 percent of these emissions get into the cabin of the school buses. So it's very important that we get these older buses off the road, and save our kids lungs who are riding these buses every day.

Thank you so much.

VICE CHAIR BERG: Thank you.

MS. TUTT: Good evening. Eileen Tutt with the California Electric Transportation Coalition. Today, I'm here representing the larger Low Carbon Transportation Coalition that we helped facilitate that we helped facilitate, made up of automakers, utilities, truck and bus manufacturers, all kinds of green ZEV technology industry folks.

We want to let you know that we 100 percent support this plan. Really, really thank the staff for all the work we did -- you did -- we did together. Also want to suggest that this year we got, you know, the closest we've ever got to adequate funding. Really happy about that. Need it next year. The thing we didn't get was durable funding, as CALSTART said earlier. So we need that for next year. And our whole larger coalition will be working on adequate and durable funding for next year, and look forward to working with your staff and you on the Board and the legislature always, and the Governor's office.

Thank you.

VICE CHAIR BERG: Thank you for all your efforts too.

MR. ALTAMURA: Good afternoon, Vice Chair and members. My name is Ivan Altamura. I represent global automakers. I will be very brief. I would like to align my comments or Global Automakers would like to align themselves with the comment made by Eileen, and also with -- I'm sorry, also earlier with Steven Douglas.

Just very quickly, I just -- we support the -- and share California's goals of expanding the zero emission vehicle market. The CVP -- CVRP is a critical component to meeting the goals. And we definitely think

that there's no other way that we're going to get there.

We believe that auto makers are doing their part in

continuing to offer very good products to the customer.

We have over 35 models of zero-emission vehicles currently

available to consumers. And we are investing billions of

dollars to expand that market.

And so the CVRP incentives are going to go a long way to help us meet the goal. So thank you very much.

VICE CHAIR BERG: Thank you.

MR. SCHRAP: Good early evening, Madam Chair and Board members. Thank you for the opportunity to present.

My name is Matt Schrap. I'm with Velocity Vehicle Group.

Usually, I'm up here every AQIP and workshop complaining about the truck loan assistance program and how it needs more money. So kudos to staff and thank you for recognizing the importance of this program and how it's helped thousands, literally thousands of low income disadvantaged community-based trucking fleets throughout California. So thank you and kudos to staff.

My card does say in opposition though. And to the bad news unfortunately. Some background about our company Velocity Vehicle Group and Crossroads Finance. We're a California based company. We employ over 1200 people throughout the southwestern United States. We consider ourselves a California company and embrace the

challenges and the opportunities that our customers face every day. It ranges from the single truck owner/operator to the Fortune 500 company.

Bottom line and the gist of the letter is that was just handed around to you. I won't read it to you, but the \$40,000 amount that staff has proposed for the ultra low-NOx engine under HVIP is not enough. So that was pretty straight forward there.

But I can tell you that if you look at the cost breakdowns that \$40,000 is barely covering the cost of the tank. No FET is considered on new vehicles at 12 percent. We've got sales tax. We have mandatory warranties, which most finance companies require on advanced technologies. So \$40,000 is impossible to get fleets excited about. All the trucks that are out there now are refuse vehicles. Maybe there will be some drayage guys who are excited about this.

But I can tell you firsthand, it's not enough. Budgeting numbers have been all over the road, so we've just recently been able to hammer these out. So I know I owed Peter some numbers before, but this is as good as it gets.

So thank you for the opportunity to present.

VICE CHAIR BERG: Thank you, Matt.

MR. LAWSON: Good evening. Thomas Lawson,

California Natural Gas Vehicle Coalition.

I was here earlier. I had to pop out for
soccer -- for basketball practice -- excuse my attire -(Laughter.)

MR. LAWSON: -- but I'm back. So, you know, we submitted a comment letter, so I'm not going to get into it. And obviously, we don't have the time. I do want to pull out one or two items that I think is important really quickly.

One is, you know, we -- the low-NOx engine we think is, you know, kind of a game-changer technology. We do think that that engine should be able to -- for folks that are deploying that engine, be able to get the \$10,000 disadvantaged community bonus, if it is being deployed in those areas.

Right now, that -- the low-NOx engine does not have access to that, and we really haven't heard a good reason why. We think that would be helpful, especially as the previous person testified that there's not enough per engine incentive. This would be an additional incentive that I think would be helpful in getting these engines on the road.

I'll just close with, you know, we're looking forward to, I think, engaging with staff, and then the Board in 2018. We really believe these programs can be

successful, and we want to continue to engage. We have some suggestions. And we, you know, hopefully can get to a point where we feel like we can make some really significant changes in the program to make them work better. And we continue to be hopeful that we can get some of these changes adopted.

VICE CHAIR BERG:

MR. LAWSON: So we put together some robust letters, and we'll -- we'll see you again in 2018.

Thank you for your time.

VICE CHAIR BERG: Thank you.

MR. LEACOCK: Good evening, Vice Chair and members of the Board. My name is Kent Leacock. I'm with Proterra, a California based zero-emission battery electric bus manufacturer. And I am going to be brief, and I'm not going to nitpick.

I would just like to commend the staff of -- for their hard work and their diligence on this comprehensive plan. The plan does an excellent job with the difficult task of allocating money among all the worthy categories, which isn't easy. And of a special notice is the emphasis placed on the maximum benefits to disadvantaged communities, low-income communities.

And in conclusion, Proterra fully supports the funding plan as written.

Thank you.

VICE CHAIR BERG: Thank you.

MR. BARRETT: Hi. Good evening. I'm Will
Barrett with the American Lung Association. I'm also
speaking on behalf of the Union of Concerned Scientists.
We support the adoption of the investment plan and believe
it sets a strong course to advancing zero emission
transportation technologies, healthy air, and a stable
climate.

The lung association and ARB research have both shown the annual health costs of pollution from the mobile source sector and the tens of billions of dollars each year in California. We know that the -- this burden of pollution falls disproportionately on a low-income communities, who can least afford it.

So on the plan itself, we believe it focuses appropriate on targeting distribution, of funding benefits to disadvantaged communities and looking to exceed statutes. We appreciate the work on the pre-qualification and the one-stop shop, elements to support broader access to incentive funding. We avoid -- or we appreciate the work to avoid incentive waiting lists for both light- and heavy-duty vehicles.

We support the advancement of widespread vehicle electrification and deployment, specifically the

heavy-duty sector, zero emission transit buses and school buses.

VICE CHAIR BERG: Actually, that was only one minute. Do you want to just finish up?

MR. BARRETT: Yeah, I'll be happy to. I'll use Kent's time to wrap up.

VICE CHAIR BERG: Well, they've all been one -- we just decided to change that.

MR. BARRETT: Oh, we're all one minute.

VICE CHAIR BERG: Oh, okay.

MR. BARRETT: I'm happy to wrap-up and just say we look forward to working with you on both the incentive package and all the zero emission -- heavy-duty zero emission regulations that are so important as well.

Thank you very much.

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VICE CHAIR BERG: Thank you very much.

MR. EDGAR: Vice Berg and Board members, Sean Edgar with -- the Director of CleanFleets here in Sacramento. Thanks for the opportunity to offer a few brief comments.

We just say keep your eye on the prize. There are 300,000 Class 4 and larger diesel vehicles in California that are DMV registered that have to make a decision to turnover in the next 3 to 6 years in compliance with the truck and bus regulation. I like

CVRP. We have 2 field services folks that have plug-in hybrids and that's fantastic. I like buses, and -- but buses don't have a regulatory mandate that I'm aware of. Most of the transit districts have already met the requirements that the Board put out. So everything they're doing is in addition.

Eye on the prize, in my view, means that the 300,000 vehicles that we know need to turnover as a result of truck and bus regulations, should be turning over into advanced cleaner technologies. And unless we figure the voucher problem out that Matt Schrap testified, and we make near zero or zero emission vehicles available to them at the right incentive amount, they're not going to get there.

So I think the technical report that's been submitted to the legislature in this report, there are 7,000 refuse vehicles alone that can make a good decision. But unless we fix the voucher amount and we deliver projects well, that specific industry and other industries just won't get there.

So just keep in mind 300,000 diesel vehicles will have to turnover. Hopefully, this can be harnessed. And right now, it's only \$1 out of every \$4 that's going to heavy-duty vehicles. The rest is going elsewhere to light duty and other categories.

1 Thank you.

VICE CHAIR BERG: Thank you.

MS. KHAMOUSHIAN: Hello there, Vice Chair Berg and Board members, and staff. My name is Linda

Khamoushian. I'm with the California Bicycle Coalition.

I'd love to stay brief with my comments, but I am pointing out a concern that requires your attention.

Last year, under the Car Sharing and Clean Mobility Options Pilot Project, we were pleased to see that electric bicycles were added as a component that was eligible to the criteria. But that was just a part of the car sharing project. So we were excited to jump on the marketing component of that. And we added a webinar to our program where we had over 150 registrants really interested to see how bike -- electric bikes can be incorporated into this incentive.

And so we were grateful for ARB staff, Tim

Hartigan, to be giving that presentation. And he also

answered 4 pages of questions that people had in response
to adding electric bikes as eligible piece to this part.

This year we see, and we're excited to see, as the name change from Car Sharing to Clean Mobility Options implies this project's previously focus on car sharing is evolving to include additional mobility enhancements, such as introducing electric bicycling sharing, and new to this

year, regular bike sharing. So that's promising.

However, I'd like to point out on page I-51 that the staff has recommended to award funding on a first-come first-served basis for small simple car sharing projects serving disadvantaged communities. Target small car sharing projects again. So this doesn't seem clear to me that electric bikes are still eligible, that if bike sharing is eligible. And so I'd love clarification on that.

And also to -- one of the things that we did get concerns about is to expand it to just stand-alone bike sharing to be able to bring that to disadvantaged communities that need it, and for projects to be able to propose that. I'd like to point out that 20 percent of the projects that applied this year added electric bike components to their projects.

VICE CHAIR BERG: Thank you very much.

AIR POLLUTION SPECIALIST PANSON: The e-bikes are eligible -- continue to be eligible this year. And we were perhaps not as clear with our language -- or obviously, we weren't as clear with our language as we should have been, but they are eligible.

VICE CHAIR BERG: Thank you.

MR. SCHOTT: Madam Vice Chair and Board members,
Tim Schott on behalf of the California Association of Port

Authorities, which is comprised of the State's 11 commercial publicly-owned ports.

First, I'd like to thank staff for their hard work and their accessibility on the plan, and also thank the Board for the discussion about disadvantaged communities, and making sure that we don't have good projects at port facilities that aren't even eligible to apply.

We would raise one issue that Mike Jacob with PMSA raised, and that is the one-to-one match requirement. We would suggest that new technologies are not only very expensive but largely untested. And as we are trying to deploy commercialization as quickly as possible, we should limit risk, especially in the early stages of these program developments. Thank you for the hard work on this, and look forward to working with you in the future.

VICE CHAIR BERG: Thank you.

MR. KENNY: Hi. Good afternoon, Vice Chair Berg and members of the Board. My name is Ryan Kenny. I work for Clean Energy. We are the nation's largest provider of renewable natural gas. I'm also here on behalf of our trade association the Bioenergy Association of California.

I'd like to thank staff as we support this final plan, and particularly Peter Christensen and Michelle Buffington, and their colleagues. They were always very

considerate of our concerns.

This is one that I'd like to bring up though that has been unresolved. And for the low NOx vehicle incentives, there is a requirement to have 100 percent fuel -- renewable fuel over 3 years. And we think that's a barrier for low NOx vehicle incentives to be pursued. We do think an amendment should be made that should have 50 percent renewable -- no more than 50 percent over the entire use of the vehicle.

A 50-percent requirement will signal flexibility to the applicant, and deliver deeper greenhouse gas emissions throughout the life of the truck, as a great amount of renewable fuel is used.

We also think that the operators will not see it -- a barrier of 100 percent, and they will not determine -- they will see not difference between renewable fuel and fossil fuel. They think that -- they think the cost savings will be attractive, and also that the fuel will be readily available. That's all we sell in California is renewable natural gas. We think that a lower requirement should be amended into the funding plan.

Thank you.

VICE CHAIR BERG: Thank you.

As Tim is coming down, Todd, you're going to be our clean-up batter, and Mr. O'Dea has left.

MR. CARMICHAEL: Good evening, members of the Board. Tim Carmichael on behalf of Southern California Gas Company. Echo just two of the comments that were made about the low NOx truck incentives. A lot of people have weighed in over the course of the year, letting the ARB staff know that 40,000 was not going to be a sufficient incentive.

That said, we're delayed -- our industry was delayed in getting specific numbers to the staff. But that could be addressed today by the Board giving the Executive Officer discretion to adjust that incentive level during the course of the year if our information is -- it proves out to be correct that 40,000 is not going to be sufficient to get the number of applicants that we want for -- we, all of us, want for low NOx trucks throughout the State.

It certainly is going to work for some of the larger companies, but many of the people and truckers that were trying to get into a newer technology are not going to be able to do it with a \$40,000 incentive.

The second point I want to echo is we have not -we have asked for and not yet received a good reason why
the low NOx trucks should not get a disadvantaged
community premium for being cited in disadvantaged
communities.

If it makes sense for electric and fuel cell trucks, it makes sense for low NOx natural gas trucks running on renewable natural gas.

Thank you very much.

VICE CHAIR BERG: Thank you.

MR. CAMPBELL: All right, clean-up batter. Todd Campbell, Clean Energy. Thank you, Madam Chair, thank you, Board members, and thank you, staff. I want to say thank you, first of all, for giving us the opportunity. Having clean vehicle incentives is incredibly important to our industries collectively, whether you're zero, near zero, whatever. And I want to thank Peter Christensen and Michelle Buffington for their help.

I just wanted to touch on the last request that we had in terms of the 9-liter engine. We need near zero engines in combination with zero emission strategies to meet attainment. And that's in the mobile source strategy.

Second, when you look at -- I just saw the discussion draft for the Transit Bus Rule tomorrow. It shows that the low-NOx engine grant is \$10,000. But the zero emission buses starting at 20 feet -- or 20 feet are \$80,000 and go up to \$300,000 for incentive dollars.

So you're looking at anywhere between 8 to 30 times the incentive dollars for a vehicle that is pretty

close in comparison in terms of not only NOx emissions, but also greenhouse gas -- gases. But also on the second page of this strategy document, it says incentives are the key to moving the market, not just for zero emission vehicles, but also for near zero emission vehicles when near -- when zero emission vehicles are not able or cannot meet the task at hand.

And what I would argue is beyond just transit, there are other applications, for example, cement users, local distribution haulers, other types of applicants that are interested in a 9-liter engine. And what I -- what I'd like to ask for in terms of a change is extend the diesel cost basis to the 9-liter engine.

Last year, we didn't do that, and \$10 million got moved out of this category and was put into some of these more rich programs. We would like to not have that repeat. We've invested lot in this industry. We need the 9-liter near zero. And so we would like to have the diesel cost basis, not the natural gas cost basis or the 2010-compliant engine, because it doesn't work. It's not enough funds.

In fact, that's why we're asking for the disadvantaged community credit, which is another \$10,000, and a little bit more flexibility in terms of the renewable natural gas requirement.

But if we don't get this change --

VICE CHAIR BERG: Thank you very much.

MR. CAMPBELL: -- I'm really worried that this program will continue to fail.

VICE CHAIR BERG: Okay.

MR. CAMPBELL: And that's not what we're all about. We fought very hard this year, and this is a big opportunity for us to move the ball forward, and I'd like to do it collectively. And I support you, and I support staff.

Thank you.

VICE CHAIR BERG: Thank you very much, Todd.

MR. CAMPBELL: Thank you.

VICE CHAIR BERG: Okay. That was our last speaker. I'm going to officially close the record on this item. There were a couple of issues that were brought up. Shall we just laundry list these and then let staff respond to them?

So I heard we -- there was a question about vocational trucks, where does that belong in the categories? There was an issue brought up on -- by the marine people and the port people about the 50/50 match, as well as the anti-automation. We've heard several on the low-NOx engines, both the 9-liter and then the funding level, I believe, for the 12-liter.

Are there other issues from Board members that -- okay. Staff.

AIR POLLUTION SPECIALIST PANSON: On the vocational trucks, they're a part -- they're part of HVIP. HVIP has some natural simplifications in how it's designed. We've kind of set the voucher amounts that cover average incremental costs. We think we've got the incremental costs right for -- across the spectrum, but we'll always -- we're always willing to --

VICE CHAIR BERG: So as long as we know the vocational trucks are in, that's good.

AIR POLLUTION SPECIALIST PANSON: They're in HVIP.

VICE CHAIR BERG: Check. Next.

15 (Laughter.)

AIR POLLUTION SPECIALIST PANSON: On the two freight pro -- the two freight issues. The anti-automation, that's in statute. That was in the budget this year. We have no flexibility on that.

VICE CHAIR BERG: Great. Check.

AIR POLLUTION SPECIALIST PANSON: That's done.

The 50/50 match. The big freight facility project is -- combines the warehouse funding with the low carbon transportation funding. The warehouse funding, the 50/50 match, is a statutory requirement. We decided to

apply it to the freight facilities -- or to the broader freight facilities, because we're going to put it out as one broad solicitation.

What I -- what I will say is we have a lot of flexibility in how define match, and we're planning to take a very broad view of match. That we would look at other State funds, other local funds, other federal funds, in-kind match. We're going to define match very broadly, so we think we -- we'll be able to address that.

VICE CHAIR BERG: Okay. I'm comfortable with that. Is that -- anybody have further questions?

Okay. Thank you on that.

So let's wrap-up with the low-NOx engines.

AIR POLLUTION SPECIALIST PANSON: The 12-liter low-NOx engine, I'll stipulate determining the incremental cost of a vehicle that hasn't reached market yet is not an exact science. What we're asking the Board to endorse is we're playing 100 percent of what we think the cost of that vehicle would be. We've asked the stakeholders for additional data to -- you know, we think 40,000 is the right number. We've asked for additional data.

Today is the first time that they've provided that data, so we're sorry that we haven't fully digested it. But essentially, if we -- when the engines come to market, if we didn't get the incremental cost right,

that's a technical adjustment. We can make that, if -we're -- we've asked you to approve the policy direction
that we would fund 100 percent of the incremental cost of
the 12-liter engine. We plan to do that. If we didn't
get the number right, we can fix that.

VICE CHAIR BERG: And, I'm sorry, how about the low -- oh.

BOARD MEMBER MITCHELL: Well, does that essentially give the Executive Officer discretion to make that adjustment, which is what they asked for?

AIR POLLUTION SPECIALIST PANSON: Yes.

VICE CHAIR BERG: Yes.

BOARD MEMBER MITCHELL: Okay. Yeah.

VICE CHAIR BERG: And then finally the 9-liter, and then we have another question.

9-liter engine, those are used in transit and waste hauling operations. The fleets that are buying those generally are buying the 9-liter low-NOx engine are natural gas fleets where we're funding, as the incremental cost, of the natural gas engine that they would fund -- that they would buy anyway to the low NOx. So that is -- we're funding the full incremental cost of that transaction.

BOARD MEMBER MITCHELL: I'm wondering -- well,

AIR POLLUTION SPECIALIST PANSON: Oh, yeah, that's also a good question. We don't give a disadvantaged community bump up for every vehicle that we fund. Right now, the only place across projects where we give an extra incentive for vehicles that are operating in disadvantaged communities are zero tailpipe emission vehicles. That's when -- that's what the disadvantaged communities have asked for.

So right now, we are making a conscious decision to only give a bump up for disadvantaged community vehicles, if they're zero tailpipe emission.

VICE CHAIR BERG: Thank you.

Supervisor Serna.

BOARD MEMBER SERNA: Yeah, not a questions. If there are no more questions, I'm prepared to make a motion and to approve the proposed funding plan.

BOARD MEMBER RIORDAN: I'll second the motion.

VICE CHAIR BERG: Any other discussion?

BOARD MEMBER DE LA TORRE: So getting back to the natural gas versus diesel. It's all premised on the idea that they're going natural gas to natural gas. But if they're not going natural gas to natural gas, shouldn't we

have a two-tiered thing, a two-tiered process.

2.4

AIR POLLUTION SPECIALIST PANSON: Right. Let me unpack that a little bit. In the 12-liter engine that's coming to market, we think there is a very good opportunity for fuel switching. And we use the diesel to natural gas baseline.

There -- we think -- you know, the purchase that we're incentivizing through HVIP, the transactions that are happening are natural gas to natural gas. There are other funding sources. If someone wants to scrap a diesel vehicle and go to a natural gas or a low-NOx natural gas, there are other funding sources for that.

HVIP is designed to be a simple-to-access program. There isn't a scrap requirement. So we're looking at the transactions that we believe are going to happen. So if you're talking about scrapping a diesel 9-liter and going to a natural gas low NOx -- natural gas or a natural gas low NOx, there are other funding sources that can address that. Those are Moyer-eligible projects.

We're basically funding, like I said, simpler transactions in HVIP. We're not requiring a vehicle scrap, but -- so we think there is opportunity within our broad portfolio to fund those.

BOARD MEMBER DE LA TORRE: Just not here.

25 AIR POLLUTION SPECIALIST PANSON: (Nods head.)

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BOARD MEMBER DE LA TORRE: All right.
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             VICE CHAIR BERG: Okay. We have A motion and a
 2
3
    second.
 4
             Do we have a second?
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             BOARD MEMBER RIORDAN:
                                     Mine.
6
             VICE CHAIR BERG: Thank you. We have a first and
7
    a second to move Agenda Item 17-12-4.
8
             All in favor?
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             (Unanimous aye vote.)
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             (Dr. Balmes, Senator Florez, Supervisor Gioia,
11
             Supervisor Roberts, and Chair Nichols not present
             for vote.)
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             VICE CHAIR BERG: Opposed?
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14
             Abstain?
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             Motion passes.
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             Thank you very much.
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             We do have one person that has requested to speak
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    on open comment.
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             Michelle -- I'm sorry, Michael.
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             Our speaker for -- well, it appears we ran a
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    little bit long, so we will invite him back to speak to us
   next month.
22
23
             We do want to close by saying Happy, Happy
24
   Holidays to everybody. This was a busy day, and we
25
    appreciate you sticking with us. We hope you have a
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1	CERTIFICATE OF REPORTER
2	I, JAMES F. PETERS, a Certified Shorthand
3	Reporter of the State of California, do hereby certify:
4	That I am a disinterested person herein; that the
5	foregoing California Air Resources Board meeting was
6	reported in shorthand by me, James F. Peters, a Certified
7	Shorthand Reporter of the State of California, and was
8	thereafter transcribed, under my direction, by
9	computer-assisted transcription;
10	I further certify that I am not of counsel or
11	attorney for any of the parties to said meeting nor in any
12	way interested in the outcome of said meeting.
13	IN WITNESS WHEREOF, I have hereunto set my hand
14	this 8th day of January, 2018.
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