MEETING

STATE OF CALIFORNIA
AIR RESOURCES BOARD

CAL/EPA HEADQUARTERS

BYRON SHER AUDITORIUM

SECOND FLOOR

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THURSDAY, JANUARY 29, 2015 9:09 A.M.

TIFFANY C. KRAFT, CSR CERTIFIED SHORTHAND REPORTER LICENSE NUMBER 12277

APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John Balmes

Mr. Hector De La Torre

Supervisor John Gioia

Ms. Judy Mitchell

Mrs. Barbara Riordan

Supervisor Phil Serna

Dr. Alexander Sherriffs

Professor Daniel Sperling

STAFF

Mr. Richard Corey, Executive Officer

Dr. Alberto Ayala, Deputy Executive Officer

Ms. La Ronda Bowen, Ombudsman

Ms. Edie Chang, Deputy Executive Officer

Mr. Kurt Karperos, Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Ms. Sarah Dominguez, Sustainable Communities Policy and Planning Section, Air Quality Planning and Science Division

Ms. Marcella Nystrom, Staff Air Pollution Specialist, Air Quality Analysis Section, Air Quality Planning and Science Division

Ms. Courtney Smith, Climate Action and Research Planning Section, Research Division

APPEARANCES CONTINUED

ALSO PRESENT

- Mr. Will Barrett, American Lung Association
- Mr. Tony Boren, Deputy Director, Council of Fresno County Governments
- Mr. Tim Carmichael, CNGVC
- Mr. Evan Edgar, Clean Fleets
- Mr. Ryan Kenny, Clean Energy, Coalition of Renewable Natural Gas
- Ms. Carey Knecht, Climate Plan
- Ms. Phoebe Seaton, Leadership Counsel
- Ms. Ella Wise, Natural Resources Defense Council

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PROCEEDINGS

CHAIRPERSON NICHOLS: We're ready to get underway. Looks like we have a relatively small group here today, which is appropriate, because it's a short meeting. But we do have some important business that we need to do.

First of all, I want to welcome everybody to the first meeting of 2015. So for those we haven't seen, welcome to the new year. And as you will be hearing shortly from our Executive Officer, we've got a lot planned for this year. So just the fact this is a quiet meeting shouldn't lull anybody into thinking this is going to be a quiet year.

Before we get started, let's begin with the Pledge of Allegiance.

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

CHAIRPERSON NICHOLS: I never known what the system is for assigning seating at Board meetings. Maybe it's because I never really asked the question. It seems to be somewhat random. But I always get to sit in the middle. But I believe this is the first time in the time I've been on the Board that I've gotten to sit next to you, Dr. Balmes. So I don't know what this means, but I'm happy about it.

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been on your right. I'm always on your left.

CHAIRPERSON NICHOLS: Anyway, I'm sure those who follow us at a distance, maybe on the web, have worked out a kind of a kremlenology of who's in, who's out, who's left, who's right. But once we figure it out, I'm sure we'll be happy to explain it all.

Clerk of the Board, please call the roll.

BOARD CLERK JENSEN: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK JENSEN: Ms. Berg?
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BOARD MEMBER BALMES: This is the first time I've

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Supervisor Gioia?

Mr. De La Torre?

BOARD MEMBER GIOIA: Here.

BOARD CLERK JENSEN: Ms. Mitchell?

BOARD MEMBER MITCHELL: Here.

BOARD CLERK JENSEN: Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

20 BOARD CLERK JENSEN: Supervisor Roberts?

Supervisor Serna?

BOARD MEMBER SERNA: Here.

BOARD CLERK JENSEN: Dr. Sherriffs?

BOARD MEMBER SHERRIFFS: Here.

25 BOARD CLERK JENSEN: Professor Sperling?

BOARD MEMBER SPERLING: Here.

BOARD CLERK JENSEN: Chairman Nichols?

CHAIRPERSON NICHOLS: Here.

BOARD CLERK JENSEN: Madam Chairman, we have a quorum.

CHAIRPERSON NICHOLS: Great.

A couple of announcements. I don't know that there is anybody here who needs this, but I'm required to tell you anyway that if you want to testify, you should fill out a request to speak card. And they're available in the lobby. We ask that you turn them into a Board assistant or the clerk before the commencement of the item.

Also to be aware that there is a three-minute time limit on speakers, which we sometimes shorten if things are really tense. But I think today we are not going to have a problem with giving everybody their full three minutes. So when it's time for you to speak, please put your testimony in your own words rather than reading, if at all possible, because we get the written testimony anyway. And it's much easier for us to focus if you'll just speak to us directly.

Also please notice the emergency exits that are to the rear of the room as well as those on the side of the podium up here. In the event of a fire alarm, we have

to evacuate this room immediately, go down the stairs and outside the building until we hear the all-clear alert.

And I think that's it in terms of official announcements.

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So we'll begin this morning with the item that I mentioned briefly in passing. And that is the Executive Officer, Richard Corey, is going to brief us on his program priorities, our program priorities for 2015. This is going to be a year with a variety of issues, but some very big ones on our agenda. And I think it would be helpful if we had a chance and those who follow us also had a chance to actually hear an overview of what we're planning for 2015.

So Mr. Corey, would you please begin your presentation.

EXECUTIVE OFFICER COREY: Yes. Thank you, Chairman, members of the Board.

(Thereupon an overhead presentation was presented as follows.)

EXECUTIVE OFFICER COREY: I'm pleased to have the opportunity to describe some of the work we'll be doing over the coming year and highlight several significant items that will be coming before you.

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EXECUTIVE OFFICER COREY: I want to start by acknowledging some of the key accomplishments of the past

year. These accomplishments are substantial and have been instrumental in moving our programs forward.

Then looking forward, it is clear, as the Chairman noted, 2015 is going to be a pivotal planning year. It's safe to say this year we'll have many major planning efforts. In fact, more than ever before. So I want to talk about how we are positioning ourselves not just to meet the challenge, but to take advantage of the opportunity this year is going to present.

Taken together, these planning efforts will define the work of the Board for years to come.

Therefore, the opportunity to seek your guidance and work with you throughout this process is going to be critical.

Lastly, I want to walk through the major programmatic and regulatory items that will be becoming before you during this year.

So first, let me highlight some of ARB's accomplishments.

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EXECUTIVE OFFICER COREY: Looking broadly at progress toward our air quality climate goals, ARB measures have resulted in a 50 percent reduction in ozone precursors over the last 20 years. Since 2000, diesel particulate matter has been reduced by over 50 percent, reducing localized risk. As a result, more Californians

are breathing healthier air.

And our climate actions are putting us on the path to meet our 2020 climate goals. But we need to do more, and that is going to be the theme of my presentation as I work through the remainder of the slides.

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executive Officer Corey: Focusing more closely on air quality and our progress this last year, 15 years ago, the South Coast air basin recorded levels almost twice the annual PM2.5 standard of 15 micrograms per cubic meter.

Last year, the data confirmed they met the standard one year ahead of the projected attainment date of 2014. Great accomplishment. The zero emission vehicle program has resulted in an increasing market share for electric vehicles. In 2014, the 100,000th ZEV was sold in California, with the trend continuing as more models are introduced.

Currently, 13 battery electric vehicles are certified for sale in California. Fuel cell technology has also advanced with the first mass-produced fuel cell electric vehicle now available and two certified for sale. The ZEV MOU states have now adopted a ZEV action plan ensuring steps that will result in more ZEVs throughout the country.

ARB has been a leader in encouraging market transformation through incentive programs. In 2014, ARB took action to distribute over \$400 million in incentives.

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EXECUTIVE OFFICER COREY: Looking at climate change activities, last year, the Board approved the first update to the Scoping Plan. The plan highlighted our progress towards meeting the 2020 emissions target and the programs that will continue to support greenhouse gas reductions beyond 2020.

California linked our Cap and Trade Program with the Quebec program, the first successful joint auction happened in November. The California Cap and Trade Program hit another major milestone in 2014. On November 3rd, 100 percent of the covered entities met their obligation to surrender compliance instruments. And finally, the first of this month, the Cap and Trade Program expanded to include transportation fuels, effectively doubling the size of the carbon market.

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EXECUTIVE OFFICER COREY: Now looking to the future. As I said a moment ago, the number of planning efforts this year is unprecedented. This offers a tremendous opportunity.

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EXECUTIVE OFFICER COREY: As you can see, the planning scope is broad, ranging from the Governor's State of the State initiatives, State Implementation Plans, the Scoping Plan, as well as the short-lived climate pollutant plan, the sustainable freight strategy, and the investment plan for the next round of auction proceeds.

These plans will help lay out the path to meeting our midterm and 2050 climate goals achieving the PM 2.5 and ozone standards and reducing localized risk. I will highlight this further in a moment, but would first like o cover some of the internal adjustments that we have made or have been making to ensure we are prepared to take on the challenge.

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EXECUTIVE OFFICER COREY: To successfully tackle the increased workload and ensure our decision making is integrated across our programs, we knew we needed to make some adjustments. Therefore, the executive team has been leading an internal effort to strengthen our operations.

Over the last year, we've reorganized ourselves to better align our divisions with our highest priorities. And we have put in place a management team well prepared for the opportunities that 2015 presents.

We needed to further refine our economic analysis capability to better inform proposed strategies and in

response have created an expanded role for economic experts in the agency.

Finally, modernizing our southern California laboratory facility is a priority to ensure we are positioned to build on ARB's success by influencing the necessary transformation to the cleanest transportation system in the world.

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EXECUTIVE OFFICER COREY: Let me briefly describe the organizational changes that I mentioned. We realigned our mobile source and laboratory programs to gain operational efficiencies and better match our existing resources with the Board's anticipated priorities.

Now, the Mobile Source Control Division will primarily focus on heavy-duty vehicle programs, the emission compliance automotive regulations and science, or ECARS Division will focus on light-duty vehicle programs, especially implementation of the Advanced Clean Cars Program, as well as the vehicle certification and verification efforts.

The Monitoring and Laboratory Division will continue to focus on ambient air quality monitoring, the vapor recovery program, and has taken on the responsibility for heavy-duty emissions testing.

With the expansion of many of the climate-related

programs all under a single stationary source division, it became clear a more focused structure was needed.

Therefore, we divided the division into two divisions.

The new industrial strategies division implements the Cap and Trade Program and has responsibilities for the energy sector, transportation fuels, and the oil and gas regulatory programs. The Transportation and Toxics Division has primary responsibility for freight planning and programs, implementation and planning for the greenhouse gas reduction fund, and air toxics related programs.

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To amplify ARB's effort to commercialize fuel cell electric vehicles, a new position was created in the Executive Office led by Katherine Dunwoody. Katherine's job supports the transition to full cells and is helping to expand the market to the levels needed to meet our air quality and climate goals.

Finally, we recently created a new position of economic advisor within the Executive Officer. The economic advisor will lead a Board-wide economic team to develop the next generation of economic mechanisms when evaluating ARB programs. Those are the major changes to the structure of the organization.

Now I'd like to tell you about our extraordinary leadership team.

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EXECUTIVE OFFICER COREY: In addition to the executive team of Albert Ayala, Edie Chang, Ellen Peter, and Kurt Karparos, we have two other important leaders in the executive office. Michael Gibbs is an Assistant Executive Officer who focuses on climate and energy policy, and Katherine Dunwoody, who I just mentioned.

I would also like to acknowledge members of the carried's office including Stanley Young, Jen Gress, and La Rhonda Bowen, all who play a key role in communicating with the press, coordinating legislative activities, and helping small business.

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EXECUTIVE OFFICER COREY: Now I would like to introduce you to our complete division management team: Erik White, Anette Herbert, Michael Benjamin, Floyd Vergara, and Bart Croes and the divisions they manage are identified on the slide. And as you can see, they're a good looking group here.

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EXECUTIVE OFFICER COREY: The other division chiefs are Jim Ryden, Karen Magliano, Cynthia Marvin, Steve Grogen, and Alice Stebbins. The division chiefs will play a key role in developing and implementing the plans I will discuss later in the presentation.

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EXECUTIVE OFFICER COREY: Lastly, part of the foundation for a future is a new Southern California lab facility. I'm pleased to report there is funding in the Governor's proposed 15-16 budget for the new facility. Specifically, the proposed budget allocates approximately 5.9 million for assessing sites and developing criteria for the laboratory that will support a subsequent solicitation. This is a very important milestone that is a precursor to that solicitation for a new laboratory.

The Department of Finance has been negotiating a possible location that involves a land swap which could translate into free land for the lab with a potential to move the schedule along more quickly. While these negotiations are not final, they are a positive development.

The inclusion of the funding is an important first step, no doubt. But there remains much work to be done. If all goes well, the current project schedule has us taking occupancy around January of 2020.

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EXECUTIVE OFFICER COREY: Now let me preview some of the major activities we will be working on this year.

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EXECUTIVE OFFICER COREY: Starting with the major

plans that I discussed earlier.

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EXECUTIVE OFFICER COREY: State Implementation

Plan development activities that will occur this year will

define strategies needed to meet federal ozone and PM2.5

air quality standards over the next 15 years. In the

first half of this year, the Board will consider updates

to two SIPs for the current PM2.5 standards, the South

Coast in February and San Joaquin Valley in April.

2015 will also be a key year in developing SIPs for the revised ozone and PM2.5 standards that are due in 2016. As you will hear in today's air quality update, the South Coast and San Joaquin Valley are two most challenging areas for attaining the air quality standards.

This year's efforts will include the core scientific technical work to establish the scope and nature of emission reductions needed to meet the standard, as well as strategy development. This will be a collaborative effort with the districts. Although significant reductions are needed to meet these standards, ongoing implementation of our existing programs is providing over half of the needed reductions.

In September, we will update the Board on plan development and strategies.

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EXECUTIVE OFFICER COREY: 2015 climate planning will focus on mapping out the strategies needed to meet a midterm target on the path to reaching the 2050 goal. As required under SB 605, ARB is also preparing a short-lived climate pollutant plan. The plan will highlight reductions from existing regulations aimed at reducing emissions, discuss current research efforts, including knowledge gaps, and develop new strategies for black carbon, methane, and fluorinated negotiated gases.

ARB will begin development of an update to the Scoping Plan during 2015. The update will address actions needed to meet a midterm target, which we anticipate later this year.

This year, ARB will also be working with the Department of Finance and many other state agencies to update the three-year plan that will guide future investments starting in fiscal year 2016 that I'll discuss further in a moment.

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EXECUTIVE OFFICER COREY: The sustainable freight strategy will identify and prioritize actions to move California towards a sustainable freight transport system. This system is characterized by improved efficiency, mobility, and safety; zero or near zero emissions and renewable fuels; and increased competitiveness of the

logistics system. The strategy will reduce localized health risks near freight facilities and provide needed emission reductions to help attain air quality standards.

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In March 2015, ARB will release an initial document with options to advance air quality toward a clean freight system. The Board will be discussing this at its April hearing.

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EXECUTIVE OFFICER COREY: Even as we plan for the long-term goals, our continued success relies on effective implementation of current programs. It's a key element.

Let me now highlight a few of those regulatory amendments and updates that staff will be bringing to the Board over the course of this year.

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EXECUTIVE OFFICER COREY: Emission reductions from the transportation sector continue to be one of our most important tools for meeting air quality and climate goals. You'll be seeing several key items this year from our light-duty programs.

First, we'll finish the ZEV amendments, as you directed staff last year. Staff continues work on the Advanced Clean Cars Program midterm review.

I should note though that we continue to be very pleased with the implementation of the rule, including

over-compliance by the automobile manufacturers. Later this year, staff will update you on their investigation of ZEV market status and the ongoing work with our federal partners.

Staff has also been working jointly with the California Energy Commission on the second annual evaluation of the hydrogen infrastructure network that supports fuel cell electric vehicles. Staff will provide a progress report on this work later this year as well.

Lastly, we will bring to the Board an amendment to the light-duty on-board diagnostics regulation. These revisions will help harmonize the regulation with the cleaner emission standards of LEV 3 vehicles.

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EXECUTIVE OFFICER COREY: For heavy-duty vehicles, continued improvement toward cleaner technology will be critical in achieving ARB's air quality and climate goals. One of our major activities will be to support federal rulemaking on Phase 2 GHG emission standards for heavy-duty diesel trucks, which will build on the current Phase I GHG standards you approved in December of 2013. These standards will be critical to reducing GHG emissions from the heavy-duty sector.

With the continued need for NOx and PM reductions in the South Coast and San Joaquin Valley, ARB staff will

continue its efforts to deploy new, low NOx, heavy-duty engines that are up to 90 percent cleaner than current engines. To help bring emerging control technologies to market, staff is developing a proposal to simplify the certification of emerging, innovative, and advanced technology heavy-duty vehicles and engines.

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EXECUTIVE OFFICER COREY: Finally, continuing implementation of the truck and bus rule remains a high priority for the agency. Staff will continue to provide extensive compliance assistance and outreach to fleet owners, while conducting fair and effective enforcement efforts.

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EXECUTIVE OFFICER COREY: Next month, staff will propose evaporative emission control requirements for recreational boats.

Towards the end of the year, staff will update you on the findings made during the red sticker off-highway recreational vehicle assessment. And we'll be working up the update to the forklift and industrial equipment regulation that will align current off-road regulatory strategies.

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EXECUTIVE OFFICER COREY: Staff will bring the

revised low carbon fuel standard to the Board next month as part of the re-adoption process. The proposal includes maintaining a ten percent reduction in carbon intensity by 2020. The promise improvements based on lessons learned during four years of successful implementation will also be proposed.

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The alternative diesel fuels regulation establishes a clear process for low carbon diesel fuel substitutes to enter the commercial market in California. Many of these fuels provide criteria pollutant and toxic air contaminant emission reductions in addition to their greenhouse gas benefits.

This year, the Board will consider the oil and gas production, processing, and storage GHG regulation targeting methane emissions from oil and gas operations with co-benefits of VOC and toxic reductions. This regulation also covers well stimulation, including fracking.

Finally, we are working closely with the Public Utilities Commission on developing and implementing rules and procedures governing the operation, maintenance, repair, and replacement of natural gas pipe lines to minimize methane emissions.

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EXECUTIVE OFFICER COREY: As part of implementing

the Sustainable Communities Programs, evaluation of the greenhouse gas reductions will be presented to the Board during the first half of 2015 for the first sustainable community strategies, or SCSs, for the San Joaquin Valley, Monterey Bay region and San Luis Obispo areas. Several metropolitan planning organizations are already working on their second SCSs.

The Board will also consider recommendations for updated targets in 2015 and 2016. The success of the target update and new planning rests on implementing the current plans to ensure regions can meet their 2020 targets. Staff will work with the four largest MPOs during 2015 on the necessary scenario analyses and quantification of co-benefits underpinning new target recommendations.

This year, staff will continue to implement and propose additional amendments to the Cap and Trade

Program. Last December, the Board acted on a new rice cultivation projects compliance offset protocol and an amended forestry protocol to include offset projects in Alaska. Both of these activities represent our commitment to develop and propose new offset protocols to support the Cap and Trade Program.

Importantly, the rice protocol reflects a collaborative effort between ARB, the Department of Food

and Agriculture, and the Rice Commission, as well as the first crop-based protocol for the program.

Staff will continue to evaluate potential for additional offset protocols. Staff also plans to propose a border carbon adjustment for the cement sector as directed in a previous resolution. This mechanisms would be intended to further address emissions leakage concerns for cement and could be expanded to other sectors in the future.

And lastly, this year marks the end of the first compliance period for the Cap and Trade Program. In November of this year, all covered entities will have to submit compliance instruments to cover 70 percent of their 2013 emissions and all of their 2014 emissions.

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EXECUTIVE OFFICER COREY: For incentive programs, ARB staff will focus on two areas this year. First, helping State agencies implement programs that are funded by cap and trade auction proceeds. And second, updating funding plans for incentive programs that are managed by ARB.

To help agencies implement programs funded by auction proceeds, ARB will be developing funding guidelines to provide direction on program administration, recordkeeping, reporting, and other accountability

measures.

Staff will also continue to work with all State agencies that receive auction proceeds to assist with program development and implementation and ensure that all investments reduce greenhouse gases.

The Board will hear updated funding plans later this year for two of ARB's incentive programs. This will include the air quality improvement program and the update to the Proposition 1B guidelines.

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EXECUTIVE OFFICER COREY: Of course, the ARB cannot do all of this work alone. We need to collaborate at all levels, internationally, nationally, and locally and through your leadership and outreach.

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EXECUTIVE OFFICER COREY: We will continue to work hand in hand on the local and national level.

As mentioned earlier, the ozone and PM2.5 SIPs are developed in partnership with the air districts and will be a priority throughout 2015.

Staff is jointly working with CAPCOA and the air districts to incorporate the new information into risk management programs for air toxics related to updated OEHHA risk assessment guidelines. We're also working with stakeholders to develop processes for evaluating potential

localized impacts associated with cap and trade.

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At the national level, we need EPA to address emissions from the trucks registered outside of California that comprise nearly half of the trips in the South Coast air basin. A national NOx standard would aid us in achieving our air quality goals and address greenhouse gas emissions.

We will continue to work on the Advanced Clean Car Program midterm review with our federal partners as well. As part of that effort, we will focus on the zero emission vehicle infrastructure assessment and PM measurement capability in a report we'll be bringing to the Board later this year.

This year we will continue working with U.S. EPA and the National Highway Traffic and Safety Administration to review greenhouse gas standards for new light-duty vehicles as part of the midterm review. We are also working with U.S. EPA on the clean power rule. Staff will present our full assessment to you later this year.

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EXECUTIVE OFFICER COREY: The Governor has made collaboration with other states and countries on clean air and climate change mitigation efforts a priority.

California has established agreements with a number of regions, including China and Mexico, to exchange knowledge

and work together on methods to reduce emissions.

ARB is working closely with Beijing on their vehicle emission standards and air quality issues and with the national government and several provinces on the design of their emission trading systems.

We are also working with the national government in Mexico as they implement new emission standards and their national climate change law, as well as with several Mexican states on vehicle inspection and maintenance programs.

Our work with foreign jurisdictions serves as an example to the countries that are negotiating a new international greenhouse gas reduction protocol, which is due to be completed in Paris this December.

ARB and other state agencies will expand on existing partnerships with states, provinces, and nations to accelerate ZEV adoption globally.

In October 2013, British Columbia, California, Oregon, and Washington jointly committed to build an integrated low carbon fuel market through the Pacific Coast Collaborative. Our work with the collaborative on the low carbon fuel standard and carbon pricing is an example of the ongoing benefits of these types of collaborations.

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EXECUTIVE OFFICER COREY: 2015 will be a year that will set the stage for our air quality and climate programs well into the future. The many cross-sector plans and initiatives that I have discussed will need to be coordinated to ensure that our new regulatory programs and efforts will achieve our goals in the most efficient and effective ways possible. Through working together internally as well as with our partners at all levels, we can achieve these multi-faceted goals.

The Board's guidance and assistance will continue to be essential for advancing our goals and initiatives. As we take on these efforts, we will rely on the important role that you play on local boards, national committees, and through public outreach. Board member outreach has been instrumental in the success of ARB's programs, and we anticipate targeted requests of the Board to continue to participate in these various stakeholder forums.

As you have seen from the scope of this year's efforts, we will also be coming to you throughout the year for direction on many critical planning efforts. These frequent updates will provide an opportunity for key guidance from the Board, as well as actions related to decisions on regulatory programs.

We look forward to the tremendous opportunity that 2015 provides to build on our many air quality

successes.

Thank you. I want to thank you for the opportunity and am available to answer any questions or hear your perspective.

CHAIRPERSON NICHOLS: Thank you, Richard. You've laid out a broad, deep agenda, and I really appreciated the picture gallery of all of the leaders that you included at the beginning because we have so many people who are new in their positions, including of course those who are flanking you. It's exciting to know that we have this depth of expertise and ability in our top leadership team here.

Is there anybody who would like to ask any questions or make any observations at this point? Yes, Judy.

BOARD MEMBER MITCHELL: I have a question on your light-duty vehicle program and the onboard diagnostics regulation.

One thing I've heard out in the community is can we use onboard diagnostics to determine the number of miles that a vehicle has traveled. And this will be of interest to any new legislation that might be supplanting the excise tax to now use VMT as a way to get funding for our transportation system.

DEPUTY EXECUTIVE OFFICER COREY: Yes, Supervisor.

I'm going to ask Alberto to weigh in. The amount of information on vehicles with respect to the OBD system is incredible. But I want Alberto to speak to the access to it and any related issues.

DEPUTY EXECUTIVE OFFICER AYALA: I would be happy to.

So the short answer to your question,

Ms. Mitchell, is we have that information today as part of
our I&N smog check program. When the vehicle comes in to
get tested, one of the data points that is recorded is
odometer reading. So that information is accessible
today.

I think what we are interested in is exploring the greater efficiencies of the OBD system and the opportunities that it may present us in a future where all I&N inspections are going to be done based on the OBD.

I think what we are going to bring back to you this year is some ideas in terms of where do we go from here, because clearly cars are becoming more connected. Cars are becoming essentially very heavily computerized, and it's a great thing.

I think one of the things we want to explore with you is what other potential opportunities for significant greenhouse gas emission reductions, as well as increasing efficiencies of the use of the vehicle.

BOARD MEMBER MITCHELL: Thank you.

CHAIRPERSON NICHOLS: Dr. Balmes.

BOARD MEMBER BALMES: Just a question, Richard, about the cap and trade auction proceeds. Obviously, that's an important area of work. When might we expect to hear sort of an update about where we're going with that?

DEPUTY EXECUTIVE OFFICER COREY: So, Dr. Balmes, the next -- so the budget -- the proposed budget for fiscal year 15-16, includes a proposal for about a billion dollars. That will be going through the budgetary process and the appropriations process. Coincident with that are a few activities. One is the budget that we are already operating on and the documentation of those projects.

So one touch point is ARB has continued to work with the various agencies that have received appropriations in the last budget in terms of as they move toward through projects through their solicitation process. One step we've taken is so folks can see in one side the different agencies that receive appropriations, where they are in their process, and where to get additional information. That's one element.

The other element that I touched on in the presentation is looking forward. And that is the next three-year investment plan. And the investment plan, the last one really did guide and inform the appropriation

process. So that process will go through a public effort over the course of 2015 in handshake with the Department of Finance and other agencies with that plan returning to the Board to discuss at the end of the year because it's due to the Legislature in January 2016.

BOARD MEMBER BALMES: Thank you.

CHAIRPERSON NICHOLS: Needless to say, there's even more interest in this fund this year than there was last year. And so we're expecting a lot of input and a lot of legislative oversight about this year's expenditures as well.

So far, the program seems to be going well in terms of the rolling out of the funds that are included in the budget. And we've been very diligent about making sure that we can document the expenditures and be able to look at the benefits that actually have occurred as a result. So it's an amazing opportunity.

I'm going to call next on Mrs. Riordan and then Supervisor Gioia.

 $\label{eq:BOARD MEMBER RIORDAN: Just a comment to Mr.} \\$ Corey and the staff.

I want to commend you for going forward to reorganize your staffing based on our future challenges. And that's not easy to do. I suspect our Chairman may have been very helpful in that effort.

But I do realize that as we change some of our roles, and we certainly are from years past, that the staffing level needs to change and the direction needs to change. And I just think about, for instance, a few years back we would not have thought much about an economic analysis. And now we are certainly required to think about that, and it becomes a very significant thing. That's just one of many, many, many.

But I do salute you for that and look forward to working with your staffing changes and opportunities.

Thank you.

CHAIRPERSON NICHOLS: Richard, you seem to have edited your marks down a little bit from the draft that I saw. This could possibly have taken the entire morning.

But as I recall, there was a pitch in there for some of the great things that Board members could assist us in doing. So you've kind of opened it up there with your offer to work with the staff. So I don't know if you want to go a little bit more into that at this point. But you might want to just comment on the fact that while we have a large staff and they're very good and doing wonderful things, there are many areas in which they like to be able to call upon the Board members, other than our obvious role in passing regulations and coming to meetings.

DEPUTY EXECUTIVE OFFICER COREY: Well, you did call me on that. So we think -- and I think we have a number of examples of this where we are convinced of the value and benefits of tapping into the expertise of this Board, and well beyond -- and goes to the Chairman's comment that was just made -- well beyond the formal elements as a Board hearing.

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As I think about the plans that I talked about over this next year and I think about freight and SIP, what our interest is doing -- and in fact, I'm saying this, calling this right out, I'm going to reach out to Board members. We are as a team from a consultation standpoint, from a participation in certain public processes, workshops to attend, the opportunity to engage and seek advice as well as the opportunity for stakeholders to engage with Board members on the range of planning efforts as well as over the course of the year we're going to be visiting a number of sites, tours, basically to get additional fact, fact finding, having Board members participate in those. So what you're going to get is I'm going to say an amped up degree of reach out to Board members and engagement. And particularly there is a number of Board members that are highly engaged in particular efforts. And I think of Dr. Sperling on freight. We need help. I'm not going to be afraid to ask for that guidance and engagement.

CHAIRPERSON NICHOLS: Thank you. This was a paid commercial announcement.

(Laughter.)

CHAIRPERSON NICHOLS: Mr. Gioia.

BOARD MEMBER GIOIA: Thanks for the presentation of the great aggressive plan.

I've been thinking, you know, as we've -clearly, we, the collective we at the Air Resources Board,
developed the Cap and Trade Program. So while the
guidelines for the use of the money are being developed by
multiple state agencies and there is going to be
legislative oversight, I think a lot of folks are still
going to be looking to the Air Board about, okay, how has
this worked? Has it been effective?

So I just want to understand a little bit about how we are going to work with the other state agencies developing guidelines to look at the metrics relating it back. Obviously, their GHG reduction is the main goal, but also the other co-benefits clearly.

So I get concerned that those who oppose cap and trade are going to look for opportunities right to say, well, see, it's not really achieving, although we are on target to meet the 2020 goals, which clearly there is success.

But how do we work with the other State agencies to make sure that everyone is measuring the -- with some common set of metrics the impact on GHG reductions. So how do you see ARB's role in all of that?

DEPUTY EXECUTIVE OFFICER COREY: Yes, Supervisor. It really is an excellent question, because the foundation for the program and for those appropriations, both legally and programmatically, was the quantification demonstration of GHG reductions, for which we play a key role on this. And to be more specifically, the agencies we've been put in the role of working with each of the agencies in terms of the quantification methodology.

So what we are doing -- this is actually every other week we are meeting with a range of agencies who have gotten appropriations. We've been working on guidelines to help inform those projects.

We've also been in the last budget cycle got support to develop a tracking system. So ultimately, the best outcome or the approach that we're taking on this is upfront -- work with the agencies up front to develop guidance that informs a solicitation process and ultimately the selection of the projects.

The other key complement to that is the documentation and tracking and transparency, which means someone can go to one site, web page, see the projects

that have received funding, where are they located, what was the funding level, what are the benefits they're seeing. We're working on that system to have that system fully automated. That's going take some time as we work through.

But we have a clear directive to have a clear tracking and reporting system. It was a high priority through the budgetary hearing processes that we went through and something that we have weighed in significantly that ultimately the best choices and decisions are made through this upfront guidance and also clear transparent tracking. We have a team that's dedicated on these very specific tasks. It's very important to inform decisions as well provide the public with information about where that money is going.

BOARD MEMBER GIOIA: I'm glad to hear that. Each individual agency is going to be responsible in developing guidelines to achieve maximum GHG reductions with co-benefits. There is a tradeoff. But having a common metric among all that we're involved.

An issue came up so I'll delve into a detail that came up with the Strategic Growth Council money. So I was working with a group of local public agencies in the Bay Area who are looking at jointly applying for some of the money for the affordable housing SCS fund from that fund.

In the model, I guess that's used to rate the applications, there seems to be a lot of focus on GHG reductions from a particular -- let's say affordable housing development. What didn't seem to be captured in the rating model -- and in the Bay Area -- that is really important -- when the SCS was passed, it provided that about 70 percent of the growth going forward in the Bay Area would occur in what are defined priority development areas, right. And that the regional agencies did a lot of modeling and concluded that would result in clearly significant reductions in GHGs because if growth occurred in more outlying areas, suburban sprawl, you have vehicles miles traveled and more GHG emissions.

The whole basis of the plan, right, is that any development in PDA is a strategy will reduce the future growth of GHG emissions because of where the development is occurring. So you have folks applying for affordable housing developments in the priority development area. But it appears the model may not capture the GHG reduction that's occurring by putting development there and focusing on the more localized issues -- do you see my point -- of GHG reduction in the housing project.

And so while I think the regional agencies -- in the case of the Bay Area, it's the Metropolitan

Transportation Association and the Bay Area Council of

Governments are going to try to put in an explanation about that. The concerns -- this is again we're sort of again this is cap and trade revenue that we want to see properly spent, the issue -- we can talk about this separate. It's an example of does the model that the Strategic Growth Council is using to rate these applications really capture the full GHG reduction because the strategy of the region was to put development in these development areas.

So you think about it. If you put affordable housing development out somewhere else, it may be a disadvantaged community, but not in a priority development area. That's different than in a disadvantaged community in a priority development area.

So I don't know. Have we sort of looked at these types of guidelines to consider whether they're really measuring full GHG reductions? Do you see the point I'm making?

CHAIRPERSON NICHOLS: I might be able to say something about this, because as you know, ARB is not a member of the Strategic Growth Council. But we are referred to constantly as a source of information and technical advise and support. And we have been following this guideline development process very closely.

I personally heard distressed calls from a number

of different people who have been involved in various ways in trying to make sure that the money in this particular fund is well spent and well documented. And I think it's fair to say that neither the models nor the guidelines are perfect at this point.

I do think it's clear that there is room before grants are finally made for some discretion to be exercised. There is no perfect model that's going to spit out the priority list and decide where the money is going to go. There's going to have to be some evaluation at the end of the day of what the results actually were in order to come up with grants that are, in fact, strategic because there is a lot of factors that are in play there.

The point that you just made is not one that I've actually heard raised in any of the discussions that I was involved in. But it makes perfectly good sense that it should be something that would be considered.

I think that probably the thing that the counsel is looking for most -- with most interest is to find places where there is multiple activities going on where these grants are going to be able to be used not just -- well, leverage is the word that's always used. Everybody is leveraging everything else. But where these grants can add a specific increment of GHG reduction that might not have happened otherwise and also allow for other good

things to happen that wouldn't happen without the funding.

So it's clear there is going to be something, just given all the activity in the Bay Area that there will be funds going into the area. It's more of a question of I guess of which types of projects really are going to be the ones that are most likely to succeed in capturing the funds here.

But I think it is a conversation that's worth pursuing with the staff. And they are actively going to be involved in eventually reviewing the applications that come in.

Yes, Supervisor Serna.

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BOARD MEMBER SERNA: Thank you, Chairman Nichols.

I, too, want to thank Richard and all the staff for all the great work you've done and all the time you put into the 2015 program priorities.

Perhaps I missed it. I didn't see a dedicated slide to it. But I think it's worth noting and hopefully having staff briefly respond.

It seems to me there is a lot of involvement in advancing environmental justice that didn't get a dedicated slide, whether it be ARB's role in advancing implementation of SB 535 or on slide 8, for instance, you have a number of long-term goals, I think each of which does have a pretty robust environmental justice component

to it.

So for the benefit of everyone listening and for us, maybe you can touch on how you see us generally continuing to focus on environmental justice matters in 2015.

DEPUTY EXECUTIVE OFFICER COREY: Yes, thank you, Supervisor.

Few touch points, and upon reflection, a more explicit reference to environmental justice would have been useful. But the touch points that I see are related to several efforts that were called out. And I'm just going to call a few of them out.

Heavy duty. We know that our efforts -- and I talked about diesel PM reduction. Those efforts -- and just using as one example the cap and trade proceeds for the clean transportation sector got \$80 million as directed to the heavy-duty sector. That was all about reducing emissions, diesel PM, NOx, and near distribution centers, ports, rail yards.

The significant progress in terms of the heavy-duty program is also will provide significant benefits in disadvantaged communities.

The work with CAPCOA and the air districts on the risk management guidelines, our whole effort in terms of using the updated risk assessment work that OEHHA has done

is really revisit what does that data suggest in terms of residual risks and are there near-source risks. Are there residual risks in disadvantaged communities that we can do additional work on. That work, to me, is an area that is a key element of the environmental justice activities.

The other is the adaptive management work. I touched on that briefly in the context of the follow-up in the Cap and Trade Program. What we learned from the implementation of the program, working with air districts and others to ensure that there continue to be the benefits that we anticipated from the program and your reference to SB 375. So several have these programs have webs to be direct linkage to benefits the disadvantaged communities and environmental justice communities, but could have been tied together a little more cleanly.

BOARD MEMBER GIOIA: Thank you. I would humbly suggest that in the future when we have a presentation such as this, which is intended to be general, I get that. And we're talking about an entire year of anticipated activity. I'd love to see a single slide dedicated to environmental justice so that we kind of have -- and the public has a very clear understanding of the connectivity to all the various programs and implementation efforts that were involved. I think that's important enough that it should be called out that way.

CHAIRPERSON NICHOLS: I think it's not too late to prepare something like that as a supplement. This document is going to have a life of its own anyway. So I think the point is very well taken that we may have done too good a job of incorporating thinking about environmental justice across the board and failed to track the totality of what it is that we're doing. So thank you for that reminder very much.

BOARD MEMBER BALMES: I'd like to chime in to thank Supervisor Serna for bringing up a point that I should have brought up myself. Thank you.

CHAIRPERSON NICHOLS: It's not that we've been together so long we're all thinking alike, really. There is a certain common thread though. Okay. Great.

Any other thoughts or comments before we move on?

Thank you so much. I do want to give you a final word,

but also did anyone sign up to speak to us on this item?

Okay. Great. Last before we move on.

DEPUTY EXECUTIVE OFFICER COREY: It will be very brief.

And having been in the organization I'm coming up on 30 years, but I realize that the position I'm in now is it's truly a privilege, it's an opportunity. And having given me this chance to play this role in this organization is very important to me. I believe strongly

in the work that we do and strongly in excellent leadership. And the work with you is something I respect and look very forward to in the years ahead. So thank you.

CHAIRPERSON NICHOLS: Thank you very much.

The next item on today's agenda is another informational update. We do have one regulatory matter, and it's an important one. But we're taking advantage of the opportunity to update the Board on some things. And the next item is an informational update on our research that ARB has been pursuing to support more sustainable communities in California. So I guess it's a nice lead in to the discussion that we'll be having next about the Fresno Sustainable Community Strategy.

We have been relative new-comers to this area of research, but I think it reflects the commitment that the Board has made to take a wholistic approach. Reducing greenhouse gas emissions through changes in urban development reflects a broad shift towards a more integrated approach to environmental problem-solving. ARB has a long history of supporting and conducting rigorous research in the natural sciences, but social science research is also extremely important as we work to deliver health and economic benefits from our climate program.

So Mr. Corey, would you please introduce this

item.

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DEPUTY EXECUTIVE OFFICER COREY: Yes, thank you, Chairman.

Recognizing the importance of community design, the Legislature passed, we touched on, SB 375 in 2008 to encourage smarter community planning as a way to reduce travel.

In addition to this legislation, other state policies also support the development of more sustainable communities throughout California.

In 2008, the state adopted CalGreen the nation's first-ever statewide green building code which sets prescriptive requirements to improve the environmental and health impacts of new residential and commercial construction in California.

To support these policies, ARB has been supporting research to provide the technical assistance needed to advance voluntary and mandatory strategies to reduce the greenhouse gas emissions associated with our built environment.

This body of research supports Senate Bill SB 375 and provides the necessary technical underpinnings needed to advance improvements to the state's green building code.

With that, I'd like to now hand it over to

Courtney Smith from the Research Division, who will provide an overview of the research ARB is pursuing in this area. Courtney.

(Thereupon an overhead presentation was presented as follows.)

MS. SMITH: Thank you, Mr. Corey. Good morning Chairman Nichols members of the Board.

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MS. SMITH: The Air Resources Board has a long history of enacting programs and regulations to reduce air pollution, largely from vehicle motors and other engines. Yet, with the passage of Assembly Bill 32, ARB's responsibility really expanded to include reducing greenhouse gas emissions across all sectors.

As part of the Scoping Plan, California's built environment, including our land use patterns, transportation systems and buildings, were identified as essential, not only to reducing our state's GHG emissions, but also to making you our communities healthier, providing more mobility options, and creating more resource-efficient homes in workplaces.

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MS. SMITH: Advancing these built environment goals presented unique challenges, not only to ARB, but also for the regional and local governments and

individuals throughout California called upon to improve how their communities are designed and built.

In order to help address these challenges, ARB developed a Sustainable Communities Research Program to provide practical tools and information that communities could use to improve their sustainability.

This research and the strategies it advances are really important in light of the Governor's newly announced goals. In his inaugural address earlier this month, the Governor proposed three ambitious goals to build upon the climate progress we've already made. Over the next 15 years, California intends to increase our renewable energy generation, to cut petroleum use, and to double the efficiency of existing buildings.

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MS. SMITH: To assist with reaching these ambitious 2030 goals, California has already developed a strong policy framework on which to build and our research program directly informs the state policies and programs aimed at accelerating more sustainable communities in California.

Our land use and transportation focused research directly supports the implementation of Senate Bill 375.

This focus on reducing travel demand, coupled with transitioning Californians to zero emission vehicles, puts

us on a path to cutting our petroleum use.

The building research we are conducting provides the technical foundation needed by ARB in order to propose improvements to the state's mandatory green building code and to advance goals for high performing new buildings. This includes state goals for new residential and commercial buildings to be zero net energy by 2020 and 2030 respectively, as well as the Governor's Green Building Executive Order, which calls for state buildings to lead by example.

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MS. SMITH: Halting and ultimately reversing decades of unsustainable development in California requires bold action across all levels of government and ultimately requires all Californians to make more sustainable decisions.

While ARB is an integral player in these activities, as you can see here, many other state, regional, and local partners are in many instances well positioned with some, if not full authority, over decisions that directly impact emissions from the built environment.

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MS. SMITH: In order to engage and assist these stakeholders in implementation, we have created a research

program that actively engages end users throughout the research process from identifying research needs and co-funding partners, to assisting with ground truthing and disseminating of research results. Part of this engagement entails ensuring that research is completed in a time line that matches planning and policy time lines.

Listed here are select partners, many of whom are co-funders of key research projects.

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MS. SMITH: To ensure that our research reaches these stakeholders, we use several methods. On our Coolcalifornia.org website, we publish information and resources for local governments and individuals. We also hold trainings and seminars on the decision support tools that we have provided.

One of our most recent webinar trainings was attended by over 150 people and was later presented to members of CAPCOA. We also collaborate with our public informations office to develop targeted media campaigns.

For the next few slides, I will focus on ARB's land use and transportation research first.

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MS. SMITH: Our work in this area is constructed to influence several SB 375 implementation activities. We are providing decisions support to help local and regional

governments prioritize the strategies they want to pursue.

Empirical evidence is also used by MPOs to calibrate and validate the regional models they're using as part of their sustainable community strategy process.

And lastly, our research can be used by ARB to inform the setting of regional greenhouse gas reduction targets.

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MS. SMITH: To support these activities, we have largely focus in three main areas of research.

With the inception of SB 375, ARB immediately starts working to provide information and guidance to regional and local governments on which strategies could be implemented in their jurisdictions in order to reduce car travel.

In addition, we have work underway to understand and quantify the co-benefits and other impacts of these strategies.

And lastly, it is time to start laying a framework for tracking statewide progress toward goals outlined in SB 375.

We currently have twelve extra extramural and three in-house projects, both completed and underway, aimed at addressing these three areas.

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MS. SMITH: Focusing first on our work to evaluate strategy effectiveness, the first thing ARB did was review and summarize the body of empirical research that has evaluated the VMT and GHG impacts of known land use and transportation strategies.

Currently, there are 23 strategies that have been evaluated as part of this effort. The literature reviews and the accompanying policy briefs are all available to the public on the ARB website and can be used by MPOs and local governments to help them select which strategies can bring about significant reductions in travel demand.

In addition, we have pursued research to understand how the effectiveness of these strategies may differ depending on where it's implemented. For example, intuitively, we know that adding a new light rail station in downtown Bakersfield is not going to have the same impact as if it were located in downtown San Francisco. Yet, at the inception of SB 375, no research had attempted to quantify how this context matters.

To begin to address this gap, ARB funded the first-known effort to actually estimate the difference local context makes. And what we found is that, yes, context does matter. Cities, counties, and regions throughout California can use the tool to see how a subset of land use and transportation strategies impact VMT based

on their community type.

And lastly, we are also conducting important empirical research to fill knowledge gaps on how these strategies play out in the real world. For example, recent research that we've completed evaluating the impact of the new expo line down in Los Angeles has found that once the expo line opened, households located near the new light rail stations traveled on average 10 miles less every day than similar households not located near stations. And this change in travel behavior held a year and a half after the stations opened.

However, it also found that people that moved into the area after the line opened were younger, they were more likely to rent, and they had higher incomes. And while their public transit use was more than double, their daily VMT was actually eight miles higher than longer-term residents. These patterns suggest that new residents may differ in important ways from longer-term residents and that policies should be tailored to maximize their potential for transit ridership. It also calls for additional research into how neighborhood change and how displacement may play out in rail corridors.

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MS. SMITH: ARB is also funding several projects that attempt to quantify the co-benefits of SB 375

strategies. We currently have a project underway to assess how actual smart growth development across California is realizing local fiscal and economic benefits to these communities.

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Last year, we completed a tool to assist local governments updating their general plans or climate action plans with estimating the residential energy use and greenhouse gas emissions associated with future development. Using actual household energy usage data in California, this research verified for the first time that California homes in more compact development use less energy.

And lastly, and of particular importance, ARB is engaging with stakeholders over the course of the next year to identify potential opportunities to advance the models and methods used to quantify health co-benefits as part of the regional planning process.

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MS. SMITH: As part of our work to explore the other impacts these travel strategies have, we are working to identify and mitigate any adverse consequences of these strategies so that way call Californians can benefit from a transition towards more sustainable communities.

One important issue centers around the issue of near roadway exposure. There is concern that pursuing

more compact development to reduce regional air pollution may place more people in areas of high concentrated traffic-related pollution. So to address this, staff has focused on identifying mitigation options. We have been working to summarize the state of the science on mitigation options. And what we found is that while certain strategies, like some traffic management strategies and barriers, appear to be a promising solution, there are also significant gaps in our understanding of what is most effective and where.

To help fill these gaps, we funded several extramural projects to evaluate mitigation options, including vegetative sound wall barriers, in-home filtration, and urban design strategies. Staff will create a technical advisory that interprets these results from the research for stakeholders.

The second area of research is focused on the issue of displacement. As California regions pursue more compact transit-oriented development to meet their SB 375 targets, there is increasing concern that new transit investment and development may lead to displacement, preventing low-income communities from sharing in the benefit of this type of development.

To begin to address this issue, ARB has partnered with both SCAG and MTC ABAG on a research project that

aims to improve our ability to predict areas vulnerable to displacement and also to identify potential policy solutions.

As part of this work, we are actively engaging communities-based organizations both in the Bay Area and the Los Angeles region where this research is focused to help us ground truth our research results.

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MS. SMITH: Moving forward, we will continue to evaluate the effectiveness of innovative strategies being considered by regions in their planning processes. As an example, last month the Board approved a project as part of our annual research plan to evaluate the impacts of affordable housing on GHG emissions, as well as on the health and well being co-benefits to residents.

Second, we will continue to identify technical and policy solutions for the issues of near-roadway exposure and displacement in order to ensure that all Californians benefit from sustainable community development.

In addition, now that many of the MPOs have undergone their first round of SCSs, we are in a position to really learn from this first round of innovative planning. ARB staff will be monitoring and accumulating research being conducted on best practices.

And lastly, while changing California's urban fabric will take time, with research approved by the Board last month, we are beginning a process to develop a base line and a framework for tracking progress toward our SB 375 goals.

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MS. SMITH: As mentioned earlier, buildings also play a really important role in creating sustainable communities. Our building-related research provides the needed technical understanding to advance climate and health strategies in the state's mandatory green building code, as well as to support the advancement of voluntary programs. In addition, staff has conducted extensive research to ensure that our new proposed laboratory down in Southern California meets the Governor's Executive Order for green building. We are also conducting research on the GHG impacts of green building strategies.

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MS. SMITH: Our green building research falls into three priority areas. Since green building was first identified in the 2008 Scoping Plan, ARB has been pursuing research to quantify the GHG reductions the state can and is getting from green building.

In addition, ARB staff has also conducted extensive in-house research to establish the technological

and cost effectiveness of green building strategies. And this is largely in order to advance their uptake in both mandatory and voluntary programs.

And last, staff has begun and will continue to track the state's progress towards its ambitious green building and climate goals.

To address these three priorities, we have six extramural research projects, five of which are complete and three ongoing in-house research efforts.

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MS. SMITH: Our work focused on quantifying the GHG reduction that can be realized through green building, includes enhancing tools to quantify GHG benefits, as well as ground truthing on the ground reductions.

Recently released research has confirmed that actual green commercial buildings throughout California are delivering real greenhouse gas emission reductions by using less water, creating less waste, and generating fewer car trips.

One of the important things this research found is that for commercial office buildings this California, the largest contributor to the building's carbon footprint was actually the transportation to and from the building. This highlights that while the transportation sector is the most difficult to affect relative to the others, it

offers the most potential because of the significant GHG intensity of travel. The acceleration of on-site transportation strategies, coupled with location siting improvements propelled by SB 375 can serve to significantly reduce building-related GHG emissions.

We have also completed research exploring the role of human behavior, finding that while technological solutions are necessary, they are not sufficient to achieving deep resource efficiency. Influencing how people interact with their buildings offers additional potential reductions.

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MS. SMITH: Staff has also undergone extensive in-house research on the technological feasibility and cost effectiveness of progressive green building. This work has provided the technical underpinning needed by staff to make proposed amendments to the state's green building code. Listed on this slide are several successful ARB proposals were adopted into the state's green building code, which applies to both new residential and new commercial buildings throughout the state.

In addition, staff has conducted feasibility and cost research to support efforts to ensure that our new proposed southern California laboratory achieves LEED platinum certification, is zero net energy, and provides

substantial fueling infrastructure for alternative vehicles, all in order to meet the Governor's green building Executive Order. This work really positions ARB to create a showcase facility and to lead the state by example.

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MS. SMITH: Moving forward, ARB staff will continue to use research findings to propose amendments to the state's green building code to ensure that it reflects the state's climate and health goals.

In the coming year, ARB staff will be working to expand requirements for new construction to be more EV ready. Staff will also be exploring the next generation of green building for California, and specifically what it might take to recognize zero and near zero carbon building. To begin us down this path, last month, the Board approved a project that will position ARB to begin our feasibility assessment of zero carbon building in 2015.

And lastly, moving forward, there is a need to continue to track state progress toward California's climate and green building goals.

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MS. SMITH: In terms of progress made to date, the Energy Commission has successfully made the energy

code building standards increasingly more stringent. However, to achieve our residential ZNE goals, the biggest improvements will be needed between 2017 and 2020.

For commercial buildings, there are five more code cycles to accomplish our 2030 ZNE goal. ARB staff will continue to support the Energy Commission and CPUC LEED agencies in efforts to accomplish ZNE goals.

On the local government level, early findings from ARB in-house research has identified that many cities and counties throughout the state are going above and beyond the state's mandatory requirements and are adopting more progressive requirements of their own. Staff research has found that over 100 local governments across California have adopted requirements that go above and beyond the state's mandatory building requirements.

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MS. SMITH: ARB's sustainable community research supported by the Board is assisting with the implementation of SB 375 and is providing the technical foundation needed to make California's buildings more sustainable.

In addition, in many cases this research is also assisting ARB efforts to quantify GHG reductions from projects funded using cap and trade auction proceeds.

We are in an exciting important time where we are

able to count our successes towards 2020, but we are also setting our sights on the next horizon and the ambitious changes required of us. Now more than ever, reversing the decades of unsustainable development that has dominated California's built environment is borrowing words from our Governor: Exciting, bold, and absolutely necessary.

Thank you.

CHAIRPERSON NICHOLS: Thank you very much, court knee.

BOARD MEMBER GIOIA: I appreciate actually sort of the different areas of research sort of highlighted the point I was bringing out earlier, which is that location matters, as well as the individual components of a development, for green building.

And I appreciate -- I didn't realize -- I had seen your presentation, but that you sort of highlighted that where you put development clearly is part of a larger strategy. So it's -- again, I see the strategy -- the research falls into two categories: The research about general location, right, as part of a larger regional strategy of where you put housing and transit and all of that versus the research about GHG reductions due to individual components of a development, green building for example.

So in both these areas, you linked or you talked

about where this research is contained. Are we collecting -- I know this is ongoing research -- a summary of these all in one place as maybe a toolkit. One of the things I hear a lot from local jurisdictions is we need help quantifying a lot of this and understanding it so we don't recreate the wheel in our own community. So is there sort of a way to have a statewide database or toolkit that can be utilized for folks to look at this research and understand it, which would help them in their local actions?

MS. SMITH: Certainly. The research that's been conducted by the Air Resources Board is in a centralized location on our website.

In terms of linking that with the research being done outside ARB, there are a few efforts to create -- one in particular coming out of UCLA to create a clearinghouse specifically of research. It is in the ongoing process. But certainly there is a need to be able to connect the different entities that are all doing research.

In addition, we, as the Research Division, the Air Board's Research Division works fairly closely with the CEC and Caltrans and other State agencies conducting research in this area to make sure it's coordinated. And it would definitely benefit from having a conversation on how together we can centralize this information.

BOARD MEMBER GIOIA: It would be good I think to think about how we can assist in facilitating that. How we can even have our own links to other agencies or academic institutions, State agency institutions, whoever is doing the research and link to them. Because folks won't know -- like you do or the agency does -- where all the different points of research are and who's conducting it. It would be nice if we could help facilitate that.

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CHAIRPERSON NICHOLS: Dr. Sperling.

BOARD MEMBER SPERLING: I want to comment that I think the research enterprise of ARB is really -- from a management perspective has come a long way over the years. And I know they've been -- I've been harping on a few I'm going to come back to them here in a second. But I think there is a lot of progress being made. the three themes that I keep having in mind is following up on what Supervisor Gioia just said is communication and dissemination. I think we're doing a better job. think we can do a way better job in some of the things and Supervisor Gioia was starting to talk about are I think But ARB could do a much better job than right on. disseminating what it does.

I've been talking to staff, so this is partly to emphasize a theme that I've been trying to articulate.

But you know, we all -- it's not just ARB. All of us

involved in generating knowledge and research and trying to bringing science to policy, we can and need to do much, much better.

The other theme -- and it's related to that,
Supervisor Gioia also said, was research partnerships.
And I think we are making good progress there. And as he said, I think we can make a lot more progress. We're moving in the right direction, but it's kind of like staying focused. And it's working with the other agencies more and more closely. And I know we are working more closely than we certainly -- than what I first joined the Board and also with universities and research centers. So that's all good. And I think we're all headed in the right direction.

Third one, I've also emphasized, but I'm a little more concerned about and that is the strategic focus of our research program. And the reason I'm concerned is because we have such a small research program. If we had a larger research program, I would -- there would be more flexibility and we could be more expansive. But given we don't -- and I would obviously argue for expanding it, however that would happen. But even then, it's really important to have this strategic focus.

So what really got my -- so the good news is I think where the strategic focus on co-benefits. That's a

really good thing, because that's really key, especially in the sustainable communities area. The co-benefits in many ways one could argue are much more important than the greenhouse gas benefits. But they are aligned very closely, so most of the strategies will accomplish both. So that's good.

Where I was getting a little concerned and I mentioned that earlier in the staff briefing, but I want to emphasize is this focus on buildings and zero net energy. Now, I work in the largest zero net energy community in the country, West Village at U.C. Davis. I'm a strong proponent. It's a great idea. We need to do much more. But just not in the wheelhouse of ARB. And there are other things.

So it is clear we should be looking at the relationships with water use and other effects with buildings and how the buildings relate to electric vehicles and being wired for EVs and all that is good and fine. But you know, if I was going to pick up one other theme that didn't show up here, and just as a contrast is freight. There was just a passing acknowledgement of the role of transportation. And I don't know if that included freight or that was just passenger.

But freight is this huge thing that we're grappling with that is integrated completely with the

sustainable communities. It's not part of the SB 375.

And maybe that's a discussion we can have at some future time. But it's certainly closely integrated with anything that happens in sustainable communities. And yet, I don't think there was any mention of it here.

And I say that not that as a criticism necessarily, because we are doing other things. But in terms of it's this idea of having a strategic focus. And I just worry that we get -- the CEC is doing a lot with building energy and zero net energy buildings and so on. We need to have a focus on what is important to our regulatory and policy focus. I just want to make sure as we go forward with these research programs, not just here, but more generally is we really keep a sharp attention strategically to what is the mission of ARB, what are the regulatory and policy activities, and not get into emission creep or into things that sound interesting but are not so closely tied to our activities.

CHAIRPERSON NICHOLS: Seems like a more than reasonable suggestion. Looks like there's been some evolution recently. And I assume that you and our other Board members who we asked almost two years ago now to take a more strategic look at research have had an impact. But that general wisdom still prevails and sounds as though there's some areas where they could be doing even

better at refocusing to meet the needs that we have.

It's always a little difficult to get out of one area and into another, as you started. I'm sure you know that better than most. But it does seem to me that given the demands on ARB and as you point out our very limited resources, both in terms of external research and in-house research, that some cross cutting internal process perhaps for kind of regularly taking a look at where we're putting our research efforts would be a sensible thing to be doing.

I think it also is an opportunity perhaps -- as I think the Board knows, I've been very interested and involved for the last couple of years in an effort to try to gain support for rebuilding our laboratory facility in Southern California. And one of the things that I think we're going to be doing soon in parallel with the effort to get it sited and built, which is a huge effort in which we're being assisted by one of our retired senior staff people, Bob Fletcher, and we have a whole internal team of people working on this, is to try to look at the programming of the laboratory and particularly the research that's done there to see if we can't get some external help as well in sort of planning for the future, which would end up having an influence on the way the build is designed, but would also hopefully help us to

have a whole new research focus at the lab from the minute it gets ready to be used.

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So I see that as not a solution to all these issues, but kind of one opportunity while something is moving forward to do something that would be interesting and to engage a group of people in the university who have all expressed interest in being involved in our research as well. So just one additional thought on this extremely important item.

Any other comments or questions? Dr. Balmes.

BOARD MEMBER BALMES: Well, my comments are actually sort of a segue from Dr. Sperling's.

First off, I want to acknowledge that Courtney gave what I thought was an excellent presentation.

CHAIRPERSON NICHOLS: Is this another one of your former students?

BOARD MEMBER BALMES: It is another one of my former students.

CHAIRPERSON NICHOLS: You've done very well by us.

BOARD MEMBER BALMES: I think Dr. Sperling is ahead of me in terms of number of students. I have to keep pushing.

But I specifically wanted to comment on something that he already commented on about the health benefits

quantification with regard to smart growth. Just to underline I think I agree with him, this is a key area. I was part of the team, the subgroup of the Board that the Chairman commissioned to try to help realign our research priorities. And first of all, I want to congratulate staff for moving in the directions that we outlined. So I appreciate that. And I'm going to leave out -- I'm going to leave comments about green buildings alone for the moment.

But on the smart growth area, which is in our wheelhouse, I think that quantification of health benefits, health co-benefits is key. I really want to underline that I would ask for more detail about what's underway, but I don't think we need to do that today, but in the future.

I also want to underscore another comment of his about the dissemination and communication. And as I mentioned in my briefing, I get asked on a regular basis about the issue of siting high-density housing next to roadways that have a lot of traffic. And I think we've been remiss in the past for not having sort of an updated technical advisory, because our old advisory, whatever it was called, guidance document, suggested that you have to be 500 feet away from a busy roadway. So this work was also very important, and I think that we should try to --

once it's completed to try to have a communication strategy to broadly disseminate. I think it would be very helpful to local jurisdictions. As Supervisor Gioia has mentioned, location is everything. I just wanted to underscore those two points. Thank you.

BOARD MEMBER GIOIA: Just as a comment -- and I think there has been a lot of good work at the Bay Area Air Quality Management District on this issue of the balance between -- and it's caused some friction in the Bay Area where you site development, as you know. So you have these potential development areas which are infill which are near transit, but that some of them -- or the location of some of them are near freeways with a lot of particulate matter emissions. And so the air district has developed a whole series of guidelines about how you analyze new development in these areas so that you try to balance it.

So the location matters both from the standpoint of the global issue of reducing GHGs, but also the personal health issue of where you build homes. There's a lot of really -- it's interesting. It faced a lot of push back from housing -- nonprofit housing developers who were trying to build housing in these areas. So I think that's been probably the most comprehensive planning in the state was in the Bay Area on this issue.

CHAIRPERSON NICHOLS: Thank you.

Dr. Sherriffs.

BOARD MEMBER SHERRIFFS: I just wanted to also thank you for highlighting health, which is obviously important in and of itself, but is really critical I think to our helping COGs help sustain the implementation of SB 375. You know, the appeal to help is a very important driver. It's really an important unifier in terms of getting people to work together for these goals. So again, very important. Thank you.

CHAIRPERSON NICHOLS: Okay. Well, thanks all for an excellent presentation. Thank you to Courtney Smith and the whole team. And we will now move on to to our one decision-making item that we have to accomplish this morning and it builds on this research. It was nicely organized.

And this is a presentation of the staff's evaluation of the greenhouse gas determination for the Fresno Council of Governments Sustainable Community Strategy, or SCS. And we want to welcome our friends from Fresno who have been patiently waiting for this item to come up.

Last summer, we saw staff presentations that gave some preliminary information about the Fresno SCS. Today, we're going to see the results of the staff's technical

evaluation of the modeling and performance indicators that underline the Fresno Council of Governments greenhouse gas quantification.

This item does involve a formal Board action to either accept or reject the Council of Governments determination their SCS meets the greenhouse gas emissions reductions targets that were set by this Board.

I'm pleased that we have representatives of the Fresno Council of Governments here with us today. We want to welcome and thank them for coming. And I look forward to an update from when you last heard this item, because I know there's been a lot of work done.

So, Mr. Corey, would you like to briefly introduce this item?

DEPUTY EXECUTIVE OFFICER COREY: Yes, thank you Chairman.

In 2010, the Board adopted per capita greenhouse gas emission reduction targets for the 18 MPOs in California pursuant to SB 375. For each of the eight in the San Joaquin Valley, those targets are five percent per capita reduction by 2020 and ten percent per capita reduction by 2035.

In addition to setting the targets, ARB is responsible for evaluating the greenhouse gas determinations prepared by the MPOs and either accepting

for rejecting the MPO's determination that its sustainable community strategy, SCS, would meet the targets. First round of SCSs for the San Joaquin Valley were completed last summer. Today, you will be looking at the first of these from the Fresno Council of Governments, or Fresno COG.

Over the past few months, ARB staff and Fresno COG staff have worked collaboratively to complete the technical evaluation of Fresno's SCS and greenhouse gas quantification.

Today's presentation will review the results of that evaluation, which concludes that Fresno's SCS, if implemented, would achieve the targets of five and ten percent.

We have in the audience today representatives of the Fresno COG, including Tony Boren, the Executive Director, who I understand would like to address the Board once the staff presentation is done.

I'll now ask Sarah Dominguez from our Transportation Planning Branch to begin the staff presentation. Sarah.

(Thereupon an overhead presentation was presented as follows.)

MS. DOMINGUEZ: Thank you, Mr. Corey, Chairman Nichols, and members of the Board.

In this presentation, I will provide a brief overview of the Fresno region, highlight the key elements of its sustainable community strategy, and summarize the results of the staff's technical evaluation of Fresno COG's greenhouse gas quantification.

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MS. DOMINGUEZ: Under SB 375, the Air Resources Board has the responsibility to set regional GHG reduction targets for the 18 metropolitan planning organizations in California.

In September 2010, the Board set targets for each of the eight counties in the San Joaquin Valley at five percent per capita reduction by 2020 and ten percent per capita reduction by 2035.

Using the targets set by ARB as goals, each MPO must develop a sustainable community strategy, or SCS, which, if implemented, would meet the reduction targets.

Once an MPO adopts the SCS, it submits the SCS along with the GHG quantification demonstration to ARB. ARB must then review the MPO's determination and either accept or reject it. Local governments have an important role, both in the development of the projects and policies that are incorporated in the SCS and for implementing the adopted SCS policies through local land use decisions and actions.

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MS. DOMINGUEZ: The Fresno 2014 regional

transportation plan and SCS represents a shift away from the county's historic growth pattern of disbursed auto oriented development and instead encourages compact growth within existing communities.

The SCS pairs inward growth with increased

The SCS pairs inward growth with increased investments in alternative modes of transportation, such as public transit and active transportation. The land use strategies in the 2014 RTP SCS enable the region to reduce its development footprint and consume less land by 2035 than the previous RTP adopted in 2011.

The SCS reflects sustainable development policies included in the recently updated general plan of its two major cities, Fresno and Clovis. These and the recently updated general plans of other smaller cities in Fresno County, incorporate smart growth principles from the Fresno blueprint. The 2011 RTP was also influenced by the Fresno blueprint, but it did not include supportive local land use policies.

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MS. DOMINGUEZ: Now let's look at the county setting for the RTP SCS. Much of the land in the county is agricultural with a large percentage of it under Williamson Act protection status. With agricultural

production from the county valued at \$6.6 billion in 2012, Fresno County is the leading agricultural county in the United States. The current population of Fresno County is a little under one million and the county is expected to grow by an additional 40 percent by 2040.

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Most of these residents live in one of 15 cities in the county. Fresno and Clovis are the largest cities and are home to two-thirds of the total population. The pattern of growth that has occurred over the past 30 years has been primarily taken the form of single family residential development, Suburban style commercial development, and disbursed job centers.

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MS. DOMINGUEZ: The 15 incorporated cities of Fresno County are shown on this map, with each city's population represented by the size of the gray circle. Except for Fresno and Clovis, each of these cities has a population of less than 25,000 and are predominantly rural or agriculturally oriented.

Much of the county's population is centered near the Fresno/Clovis metropolitan area, along State Route 99. The Kings Canyon National Park and Sierra National Forest cover most of the eastern half of the county.

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MS. DOMINGUEZ: The SCS provides a range of

housing and transportation choices for residents while supporting cost effective development decisions. The 2014 RTPS encourages more compact infill development near existing services and encourages more new multi-family housing units. The transportation project list places less emphasis on road capacity expansion projects and instead invests a higher percentage of the budget on transit, bicycle, and pedestrian infrastructure.

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MS. DOMINGUEZ: If the strategies in SCS are implemented, nearly three-fourths of the county population growth would occur within the Fresno/Clovis metropolitan area. The increased infill development within Fresno, Clovis, and other cities, will reduce average trip distances of approximately ten percent by 2035 by placing residents closer to destinations. The 2014 SCS also offers for transportation options. Five bus rapid transit are planned for the city of Fresno with one line currently under construction. The BRT corridors will link existing and planned activity centers within Fresno, including north Fresno, California State University, and downtown Fresno.

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MS. DOMINGUEZ: The county will see over 500 new bike lane miles added by the 2040 year horizon of the

plan, as well as 120 miles of new sidewalks. This will allow more people to use active transportation as an alternative to driving.

Another strategy in the SCS is the use of transportation demand measures, such as carpooling and van pooling. Fresno COGs existing computer and farm worker van pool subsidy helps to address the needs of commuters in rural communities and those with remote work sites. Fresno COG will continue to encourage carpooling and van pooling by offering financial incentives and a ride matching service.

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MS. DOMINGUEZ: Increased local support for more compact sustainable development has led to the construction of many projects, such as the ones depicted here. The 1612 Fulton project is a mixed use development incorporating live/work lofts. It was completed in 2013 and is located in Fresno within a half mile of existing transit and within a half mile of the first BRT line.

On the right is the City View at Van Ness, a mixed use project currently under construction in Fresno. It is also within a half mile of existing transit and within a half mile of the first BRT line.

At the bottom of the screen is the mixed use

Marion Villas Apartments scheduled to be completed at the

end of 2015 in Kingsburg, a smaller city south of Fresno. These projects offer examples of the types of future projects we can expect, given the strategies included in the SCS.

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MS. DOMINGUEZ: The rest of the presentation addresses the technical evaluation of Fresno COGs RTP SCS, which ARB staff conducted in accordance with the technical methodology established in 2011. The next several slides compare the performance of the 2014 RTP SCS to the performance of the previous RPT adopted in 2011. All comparisons are the performance of the respective plans in 2035, unless otherwise noted.

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MS. DOMINGUEZ: The graph shows the difference in residential density between the two plans using the dwelling units per residential acre metric. The average density increases from 4.9 to 9.3 units to the acre, an increase of about 90 percent. This increase is in part due to the projected smaller single family lots and to the increased share of new multi-family housing units.

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MS. DOMINGUEZ: In this graph, the two bars on the left represent the 2011 RTP, and the two bars on the right represent the 2014 RTP SCS.

The blue bars indicate the single family housing and the green indicate multi-family.

The percentage of multi-family housing increases from 22 percent to 47 percent of the total new housing units. This is notable departure from the historic pattern of the single family home construction.

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MS. DOMINGUEZ: The 2014 RPS also encourages more housing and jobs growth near transit. The strategy of encouraging growth near existing activity centers in addition to the construction of the BRT lines increases the total number of new jobs and housing units that would be accessible by transit compared to the 2011 RTP.

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MS. DOMINGUEZ: The land use strategies in the 2014 RTP SCS reduce the development of footprint of Fresno COG's future growth. This graph shows the total amount of acres consumed by the development under each plan and the acres of farmland consumed. Compared to the 2011 RTP, the 2014 RTP SCS consumes approximately one-third fewer total acres and one-third fewer acres of farmland.

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MS. DOMINGUEZ: The total budget of the 2014 RTP SCS represents approximately \$4.5 billion in projects through 2040. Compared to the 2011 RTP, the 2014 RTP SCS

provides a greater investment in transit, bike, and pedestrian infrastructure.

In addition to the bike lane and sidewalk improvement projects within the bike and pedestrian budget category, the budget for roadway capacity expansion includes about 164 miles of bicycle and pedestrian amenities that will be included in capacity expansion projects as a result of the complete street policies.

The increase in transit funding reflects the five new BRT lines in Fresno, the purchase of additional rural transit vehicles, and also investments in CNG vehicles and fueling stations throughout the county. Although this plan prioritizes investments in existing urbanized areas, the RTP SCS implementation strategies, such as the transportation needs assessment, represent a first step in addressing the mobility needs of rural areas.

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MS. DOMINGUEZ: The 2014 RTP SCS demonstrates a decrease in the daily VMT per capita and the daily CO2 per capita for both 2020 and 2035. These reductions of a result of the many elements of the RTP SCS, including strategies previously discussed, such as reduced trip distances due to infill development and increased alternatives to single occupancy vehicle travel.

Fresno COGs travel demand model developed in 2012

with funding from the Strategic Growth Council was used to develop the 2014 RTP SCS. The Fresno model is based on the CUBE software platform similar to other MPOs. The current model is an improvement over the previous model, but is still limited in its ability to forecast outcomes of certain land use and transportation strategies.

In addition, Fresno COG used Envision Tomorrow to evaluate alternative land use patterns. Like other MPOs, Fresno COG used off-model tools to quantify GHG reductions for certain SCS strategies to which the model was not sensitive.

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MS. DOMINGUEZ: As part of ARB's technical evaluation, staff reviewed key inputs and assumptions of the travel demand model and land use tool. This included the demographics and growth forecast, current and future land use, the transportation network, and auto operating cost. The input assumptions are reasonable and are comparable to those of other MPOs.

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MS. DOMINGUEZ: Fresno COG also provided ARB with a copy of its travel model, which ARB staff has installed and run. Having access to Fresno's travel model has provided ARB staff with a better understanding of model operation, model inputs, and assumptions.

To determine if the model was adequately sensitive to the strategies included in the SCS, ARB collaborated with Fresno COG staff to design and run five sensitivity tests: Auto operating cost, transit frequency, residential density, proximity to transit, and household income. These tests demonstrated the travel model sensitivity to the land use and transportation strategies found in the SCS.

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MS. DOMINGUEZ: Based on staff's technical evaluation, staff recommends that the Board accept Fresno COG's determination that its 2014 RTP SCS, if implemented, would meet the region's per capita GHG reduction targets for 2020 and 2035.

This concludes my presentation. Now if the Board would like the Executive Director of the Fresno Council of Governments, Tony Boren, to address the Board, he is available. Thank you.

CHAIRPERSON NICHOLS: That's what I was planning to do, according to my script.

Thank you, Sarah for the staff presentation. I would like to invite Tony Boren to address the Board on behalf of the Fresno COG.

MR. BOREN: Thank you, Chair Nichols and Board member.

As I'm standing here listening to this discussion and the staff presentation, it just dawned on me this has been a heck of a ride. Seven years we've been in this process since 375 was first approved. The target setting process in and of itself was a challenge, all kinds of challenges. As I sit here and see the information and I see the metrics and the results and it seemed like that was just so easy. It wasn't that easy. We have looked forward to this day, COG staff, our COG Policy Board, our COG member agency, we've looked forward to this day specifically this event for a long time.

It was quite a challenge, but I'm so proud of our planning process, so pleased with our staff, Christine Ki is here. She was kind of our planning manager on this process. But all of our COG staff just working just so well with the ARB staff and our member agency. That was a big part of it. Because when this process was first introduced, there was a lot of suspicion on the part of land use agency. But through just working together and teamwork, I think we developed an SCS that meets the targets and is going to provide an improved quality of life for our community.

I think we get it. Our community gets it. And we had this process -- we had I don't know how many meetings. I know over a thousand different participants,

but really just something we're very proud of. So I'm really here to sort of acknowledge all of those folks, thank ARB, Sarah and Terry for all their help.

Again, this is something we've been working together with these folks for a long time. To be here today at this moment is very rewarding. So I'm going to stop right there. I would be happy to answer any questions you might have.

CHAIRPERSON NICHOLS: I think we should probably all just listen to the people who have signed up to speak on this item. I don't think we have any opposition here. But we might as well take the public input.

But I want to congratulate you, too, on coming to this point. I know it's been a long process and has not always been easy. And it's called for a lot of effort on the part of people in Fresno. And you've been there, not only for your own community, but to help other communities as well. And I think the results of that really show.

So I'm just going to call up Ella Wise from the Natural Resources Defense council, Will Barrett from American Lung Association, and Carey Knect and Phoebe Seaton. You can see your names up there on the wall. Good morning.

MS. WISE: Good morning, Chairman Nichols and members of the Board.

My name is Ella Wise from the Natural Resources
Defense Council.

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I want to thank and congratulate the ARB staff, the Fresno COG, and its staff and all the community members who contributed to Fresno's sustainable community strategy and its modeling. It is clear that Fresno has taken advantage of the opportunity provided by SB 375 to make impressive progress in their land use transporting and transportation investments.

As the first technical evaluation for a valley SCS, this sets important precedent for the rest of the valley. With that in mind, I want to remind us of all of the concerns and outstanding questions about some of the valley SCSs adopted this summer.

Specifically, the Kern County draft SCS claimed assumptions in the model, specifically assumptions about future operating costs, accounted for most of the GHG reductions. The region was relying on these assumptions, not active policy changes and shifts in investments as the law of SB 375 intends to meet the targets.

So with those concerns from last summer in mind, I propose three important questions when considering today's evaluation.

One: Were reasonable assumptions used?

Two: What role did those assumptions play in

achieving the GHG targets?

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And three: What role did interregional travel play in achieving the GHG targets?

From my reading of the report, one: As staff said, reasonable assumptions were used.

Two: Assumptions of future operating costs do account for significant amount of the GHG reductions, but at least not a majority of the reductions as other SCSs have claimed.

And three: ARB is committed to improving the accounting of interregional travel in the valley.

So these are good things.

That said, I do want to draw attention to a concerning fact that there is relatively little difference between the projected VMT in 2035 if the SCS is implemented and the projected VMT in 2035 if it's not implemented. So the difference between to "project" and the "no project" alternative is only a few percentage points. This small difference in VMT indicates that we need to do much more to move the needle on climate change. And fortunately, we can do more in the valley where the great projected population growth allows for real change in how we build our communities.

So we look forward to supporting the Fresno COG, ARB, and my colleagues and stakeholders in ensuring that

strategies in the next SCSs gain even more GHG reduction. There is a bigger difference in VMT between the project and the no project. First, congratulations on this first round. Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Will Barrett from the American Lung, good morning.

MR. BARRETT: I'm Will Barrett with the American Lung Association of California.

I want to thank staff fr their first round of SCS. We appreciate the useful recommendations that were made as well to strengthen future plans. We also want to acknowledge the Fresno COG, a really large role in making this process go smoothly by providing a COG model for ARB to utilize.

We appreciate the COG has taken many of those recommendations seriously for the next round.

I also want to appreciate the Fresno COG has taken on public health in a meaningful way in their implementation strategies. As was discussed earlier, the needs assessment, the grants program, these things are all -- we're working with COG on these, along with the health department, to really identify and fund health promoting projects that come forward for disadvantaged communities.

Local communities like Gridley and Clovis are bringing more health focus into their plans. And we think the strong local implementation is critical, as Fresno County is home to some of the most difficult air pollution challenges in the nation, has higher than average rates of asthma and other chronic illnesses impacted by community plans.

From a broader perspective, Governor Brown's goal of cutting petroleum consumption by half in 2030 will require strong implementation at the local level and stronger plans over a time really to shift the land use patterns that are included.

In the Fresno draft EIR, it stated even with the implementation of the various improvements, considering the future land use development under the 2014 plan, VMT and fuel consumption will actually increase over time overall. So while the transportation choices are becoming more efficient under the plan, the local decisions really are at the core really to land use and are not grown far enough yet to reign in the VMT in petroleum use needed over the long term.

We encourage ARB to continue to develop recommendations for improving the SCS plans themselves going forward, but also to work closely with the valley COGs to identify more transformational projects that can

add to more future growth and healthier walkable communities and really expands the stable of projects that come forward for Strategic Growth Council funding out of this region that needs so much attention in the disadvantaged communities.

We want to see continued support for the discussions, as Dr. Sperling mentioned, with academic institutions like U.C. Davis and really to offer innovative solutions that can make the most sense in the valley and really draw from the research discussion we heard this morning about location-specific practices that make the most impact.

Finally, want to carefully encourage you to carefully review the targets once the first round SCS process is complete. Fresno and most of the COGs have offered plans in excess of their targets. And we want to see the local governments really challenged to put forward new plans and new projects that go beyond where they are now and take advantage of some of these innovative approaches that are coming forward.

So with that, I just want to thank the Board, the COG staff, and look forward to working with all of you to continue to make the valley a healthier place to live with cleaner air. Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Carey Knecht.

MS. KNECHT: Good morning. Like the speakers before me, I'd like to start by thanking and congratulating staff here at ARB as well as at Fresno for this in-depth review and making this information available to all of us and for all of the hard work that went into the Fresno COG's SCS.

As someone who followed the process, I got to see some how much hard work went into this plan, and I want to congratulate Fresno on this staff determination that it met the targets.

As I read the review, I read it asking myself the question: Did Fresno achieve the targets via policy change or via assumptions in the model? And it is clear from the review that Fresno COGs SCS did dramatically depart from business as usual and from its previous RTPs in making development more compact and expanding housing and transportation choices.

It also seems clear that reasonable assumptions were used that, for example, the auto operating costs were the same as assumed by the big four MPOs, which I was happy to see.

At the same time, when compared to the no-project alternative, the plan is only slightly better, not for instance ten percent better, and several of the scenarios

would have gone further. So to me, this suggests that three things need to happen:

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If a no-project alternative means around a seven percent decline, then the targets can and should be higher than ten percent.

At the same time, land use and transportation modeling can get more integrated and improved so that Fresno can be getting credit for all of the strategies that this analysis highlights.

And as statewide stakeholders, we need to quickly study and share the best practices that will have the greatest benefit and advance multiple goals like the great research programs we've been hearing about this morning so far.

Many of these actions, as we know, will require funding and leadership from the state. And I appreciate ARB's leadership and ask for continued leadership in making that happen.

As the state studies these best practices, I feel there are many untold stories in Fresno. I often hear about best practices from other regions and think Fresno is doing something similar or beginning to do something similar. For example, Fresno offered mini grants to community groups to participate. They allowed community organizations to submit their own scenario. They scored

transportation projects in a true transparent criteria. There are a number of things that are going well in Fresno.

And moving forward, they are practically tackling some key questions in their implementation.

I look forward to the discussion that will continue around SB 375 best practices and what we can learn from this SCS. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Phoebe Seaton.

MS. SEATON: Hi. Good morning. Phoebe Seaton with Leadership Counsel for Justice and Accountability.

I, too, thank the Board and thank the COG and along with my fellow speakers appreciate how far the COG has come along since its last RTP, but really see this next phase as a period where we can go further and better in implementation and preparing for the next round.

One area that we remain disappointed is that we see that the COG did continue too much emphasis on new time development at the expense of investing in existing communities. Not only this GHG emission reduction ramifications, but it also impacts the other major goal that we see in SB 375, the development of healthy, sustainable, livable regions and communities.

For example, the RTP does put two-thirds of its

new growth in unincorporated areas and new towns where there are many existing communities that have seen substantial transportation and transit needs. And another example is the small town of Mendota, often highlighted in national newspapers for its high levels of poverty and lack of access. 1.2 percent of the population there, only .1 percent of the investments. We'd like to see more equitable investments going forward.

And we also look forward to working with the COG, as several have noted, on implementation of key strategies and policies and programs doing transportation and transit needs assessments throughout the region to identify opportunities for leveraging the strength of the communities that are there and developing a grants program to further the implementation.

We would also like to see greater emphasis on conservation farmland preservation. While we think that the SCS does call for too much conversion of farmland, we look forward to working with COG on implementing its conservation priorities.

And finally, we continue to read the equity analysis and am confused by it. We put out a health impact assessment and have done our own equity analysis and we hope with the COG and the Air Board we can look to those indicators rather than those who are included in

this report to really focus on what potentials are in Fresno, use that as an identification of where we can go in the region and other rurals areas of the state and move forward with implementation and improved practices.

Thanks so much.

CHAIRPERSON NICHOLS: Okay. That concludes the list of witnesses. And now we have an opportunity for the Board to ask questions or make comments on the presentation.

Dr. Balmes, would you want to speak first?

BOARD MEMBER BALMES: Yes. I think the last time the SCS for valley NPOs came up, I was on the critical side. I want to say today it feels nice to be able to be congratulatory to the Fresno COG and again to our staff for working with them. It's that kinds of cooperative interaction that I'd like to see all the NPOs in the valley emulate.

So my most important point is thank you to Fresno for working closely with our staff. Thank you to our staff for being willing to provide the assistance that Fresno needs, and as the other NPOs will need as well.

I agree with some of the comments made by the witnesses. It could be better. But I don't think we should let the perfect be the enemy of the good. This is a good first step, and I'm very pleased to see that.

CHAIRPERSON NICHOLS: Thank you. Any other comments here?

Yes, Dr. Sperling.

BOARD MEMBER SPERLING: I'm with Dr. Balmes all the way, and I was before in our skepticism last time around.

But I agree. It's really great to see the progress that's being made, the commitment in the Fresno area. Because in the end, you know, what we really are is looking for is more livable communities. And a big part of more liveable means less expensive transportation and less expensive housing, making it economically sustainable as well.

And so looking -- there was one -- I guess I can't help but pick up on that one little observation and that is disconcerting about the change in VMT between 2020 and 2035 and greenhouse gases, especially because the reduction to 2020 was probably due in large part to the economy and what happened. And now if fuel prices stay low, and I suspect today's fuel price is a lot lower than what's in the models, one would -- the actual VMT at least model would go up. In reality, it will probably go up, too. So there are concerns here. But you know, I think it's heading in the right direction.

The real comment or observation I want to make is

that going forward partnerships and incentives are so key to this. And we did hear about the partnerships, and that seems to be moving in the right direction.

I would note that after the last meeting, some of my colleagues and myself met with Fresno and some of the other COGs and actually have started working together in coming up with more innovative creative ways of dealing with transportation. Are there less expensive and better ways of providing low carbon transportation? And I think that's a good example of some of the partnerships.

But going in the right direction -- but the big thing -- it's important for us here on the Board is to stay focused also on the rewards and incentives. We need to -- that's probably the most important thing we can do. Yes, we want to help with the modeling. Yes, we want to support the technical assistance and that's important and that's valuable.

But most important is helping create the incentives and the rewards for the political leaders to be able to do the kinds of things that need to be done. And that means one part of it of course is the cap and trade revenues, but there's other ways of doing that in terms of transportation funding can be used in different ways. And a lot of that requires state -- changes in state policy and something that I've -- it's a complicated topic, but I

think it's important for both Fresno as well as the entire state. So that's I know a theme that some of us are starting to pay attention to.

So congratulations. And we're -- I guess we should reiterate we're here as partners to help you do a better job. So thank you. And thanks to the staff, too, for being those partners.

CHAIRPERSON NICHOLS: Does anybody else want to add a comment, our representative from Fresno?

BOARD MEMBER SHERRIFFS: Sure. I don't think I can be more eloquent than the last two doctors. So I'll use an analogy here.

I'm not going to be watching television on Sunday. But you know, I think we've seen there weren't any long passes in this. But we didn't get any deflated footballs either. And it was tough because this didn't start on the 20 yard line. It started very deep in the end zone. Very deep in the end zone.

So I was cautioned by Dr. Sperling not to get up and do any end zone dances here, because the game is not over. The game is not over.

BOARD MEMBER GIOIA: You're not watching the game?

BOARD MEMBER SHERRIFFS: Going to miss the advertisements and everything. The game is not over and

it's not even clear we're at the end of the first quarter. This really is just the beginning. And the field has changed. And it's probably actually a little longer than 100 yards. So we definitely have our work cut out for us. But as has been pointed out, a great deal of success here. So with that thought in mind, I would move adoption.

BOARD MEMBER SPERLING: Second.

CHAIRPERSON NICHOLS: I think we might as well just proceed to a vote then. All those in favor please say aye then.

(Unanimous aye vote.)

CHAIRPERSON NICHOLS: Any opposed?

It's passed unanimously.

Done for now. Thank you. And congratulations. This is, indeed, a big moment and time to celebrate a little bit.

I'm not planning to watch the game either, but I have seen the BMW commercial, which is excellent. And it's going to be a -- people are going to be talking about this commercial. And it has something to do with the future of transportation. It's right up our alley. Just a teaser.

I have a question before you leave. This doesn't effect the decision at the moment. But the planning, how does it deal with the future now? Clearly, I think

reality that high speed rail is going to be going through Fresno and that there will be a station in Fresno? Is that factored into the plan?

MANAGER ROBERTS: Yes. Chairman Nichols, yes.

Fresno COG is fully aware and with open arms hoping to see high speed rail developed in the valley. There is going to be a high speed rail station in the city of Fresno near the downtown. City of Fresno actually has a \$1 million grant to do a stationary plan, a specific plan around that station. The Fresno COG RTP SCS acknowledges the fact that high speed rail is coming to the valley and, therefore, many people in Fresno County including the mayor of the city of Fresno who are really looking forward to high speed rail providing a huge economic incentive to the area and a focal point for community development and infill development.

CHAIRPERSON NICHOLS: One would assume in the long term some of the GHG benefits that we've assessed from high speed rail will be attributable to this particular area. And I'm just interested to know whether a region in their SCS could take advantage or count, if you will, those.

MANAGER ROBERTS: The Fresno COGs travel model did not incorporate high speed rail as one of the strategies from which they were expecting to get

greenhouse gas benefits. So if their model were to include high speed rail as yet another land use or transportation strategy, they probably could have shown even greater greenhouse gas reductions. But that is not something their model currently contains.

BOARD MEMBER SPERLING: Is that true? Because I thought the inner city travel is not included in the model.

MANAGER ROBERTS: Inter city?

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BOARD MEMBER SPERLING: Inter city is incorporated included in the travel models that are being used, was my understanding.

MANAGER KALANDIYUR: I think international travel is not currently captured in this one, but they estimate the statewide model. That's why we are going to move forward.

DEPUTY EXECUTIVE OFFICER KARPEROS: In terms of calculating emission reductions against the target, interregional travel is not included in that calculation.

In terms of taking greenhouse gases out of the area, certainly the model would be able to capture a shift of mode from road interregional or not to high speed rail. And that would show up in their analysis.

BOARD MEMBER SPERLING: I was making a plea for everyone to get their act together and improve those

models.

CHAIRPERSON NICHOLS: I was teeing it up for you to do that. Okay. Thank you very much.

We have one more item of business before us today. That is another informational item, a very important one. It's a report on air quality with a focus on ozone and fine particulate matter, basically an update on how we're doing.

So as our air quality continues to improve and some areas are actually meeting the federal air quality standards, we do still have others that have a ways to go.

So given the agenda that Mr. Corey started with at the beginning in terms of developing state implementation plans that are going to be due to the EPA next year, this is a good time to hear an update on how we're doing on our progress on air quality standards.

I believe that we have everybody in place who is going to be reporting on this item.

So Mr. Corey, are you ready to introduce it?

DEPUTY EXECUTIVE OFFICER COREY: Certainly. As I noted in my priorities presentation, ARB is currently developing SIPs that will move us toward attaining the current federal ozone and PM2.5 standards. These SIPs will be becoming before the Board in 2015 and 2016. Those plans are based on measured air quality. Therefore, as we

start the planning process, we need to provide you the latest information on the air quality status. As you'll hear, ozone and PM2.5 air quality have improved significantly. And although many areas attained the current standards, other areas such as the South Coast and San Joaquin Valley present greater challenges. However, ozone levels and population exposure continue to improve into these regions as well.

At this time, I'd like to ask Marcy Nystrom to begin the staff presentation. Marcy.

(Thereupon an overhead presentation was presented as follows.)

STAFF AIR POLLUTION SPECIALIST NYSTROM: Thank you, Mr. Corey. And good morning, Chairman Nichols and members of the Board.

In today's presentation, I will be talking about regional air quality with respect to the progress we've made. I'll also talk about the work we still have before us, as we continue to move toward attainment of the federal air quality standards.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: The majority of my presentation will focus on our air quality successes and the nature of our future challenges.

Ozone and PM2.5 remain our primary concerns and

regional difference in these pollutants will inform the development of future control strategies.

I'll end the presentation with a discussion of U.S. EPA's proposed revision to the federal ozone standards and what the future planning requirements will be.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: U.S. EPA has established air quality standards for a number of air pollutants. Through ongoing implementation of our control program, California meets the federal standards for carbon monoxide, nitrogen dioxide and sulfur dioxide statewide. We also attain the federal led standard, with the exception of a limited portion of Los Angeles County.

The remaining exceedances in this area are tied to a local facility, and the South Coast district continues to implement controls to reduce emissions.

In addition to these pollutants, California's programs have also substantially reduced exposure to toxic compounds such as Benzene and diesel particulate matter. However, statewide attainment of the federal ozone and PM2.5 standards remain significant challenges. Therefore, the remainder of my presentation will focus on these two pollutants.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: A key aspect of the challenge is the need to address multiple standards for each pollutant. These standards have become more health protective over time, as U.S. EPA has reviewed them in light of more recent scientific studies.

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California has already developed and submitted SIPs to address the 80 parts per billion or PPB 8-hour ozone standard. We've also submitted SIPs to address two of the PM2.5 standards, the 15 microgram per cubic meter annual standard, and the 35 microgram per cubic meter 24 hour standard.

As part of this presentation, I'll characterize the significant progress that's been achieved through implementing these SIP strategies. However, U.S. EPA recently adopted new standards, lowering the ozone standard to 75 parts per billion, and the annual PM2.5 standard to 12 micrograms.

While our current strategies will continue to move us closely to meeting the new standards, significant further reductions will be needed. As we develop new SIPs to meet these standards, air quality trends and the nature of the remaining air quality challenge will help inform appropriate strategies.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: With

these multiple standards in mind, let's take a look first at ozone.

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U.S. EPA designated 15 areas of California as non-attainment for the 80 PPB ozone standard. These 15 years are shown on the map in green and dark gray. Compliance with the federal standard is assessed using what is known as the design value. This statistic looks at concentrations measured over a three-year period at each monitoring site. Design values at each site is an area must meet the standard to demonstrate attainment.

Since the designations were made, ozone concentrations have decreased throughout the state. Ten of the original 15 non-attainment areas, those shown in green, now meet the standard. In addition, the Sacramento metro area has only one site that still exceeds the standard and by only one PPB. We, therefore, expect the entire Sacramento metro area will attain the 80 PPB standard this year.

In the remaining non-attainment areas, ozone design values have decreased up to 45 percent since 1990. Today, more than 80 percent of Californians live in areas with air quality that meets the standard compared with only 35 percent in 1990.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: The remaining non-attainment areas included the Coachella Valley, Mohave Desert, South Coast, and San Joaquin Valley. The Coachella Valley and Mohave Desert are located downwind of South Coast and attainment in these areas is linked to air quality improvements in the South Coast.

Design values in the San Joaquin Valley and South Coast are about 15 to 20 percent above the standard. Thus, ongoing emission reductions are still needed to meet the 2023 attainment date.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: While we continue to implement the current control strategy, as you heard in Mr. Corey's presentation, we've also begun developing SIPs for the 75 PPB standard. These SIPs are due in 2016.

U.S. EPA designated 16 areas as non-attainment with the 75 PPB standard in 2012. Today, four of the 16 original non-attainment areas already meet the standard, as shown by the green areas on the map. The remaining non-attainment areas shown in dark gray have attainment dates ranging from 2015 to 2032, depending on the severity of their air quality.

The South Coast and San Joaquin Valley are the only two extreme areas in the nation, and they have until 2032 to attain the standard. The nature of the challenge in these two areas differs and therefore will require regional differences in strategy.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: The next series of slides will highlight factors that influence air quality in these two regions and how that knowledge is helping to inform needed control strategy approaches.

This map shows how ozone concentrations vary across the South Coast. The green shades represent the lowest concentrations, those that meet the 75 PPB standard, while red represents the highest concentrations. South Coast's proximity to the Pacific Ocean results in air flow patterns that help keep ozone concentration low in the coastal area.

In contrast, ozone concentrations tend to build up at inland locations where temperatures are higher and the air is more stagnant. This contrast in weather and topography results in large ozone concentration across the region.

As shown in green, a relatively large portion of the South Coast already meets the standards. Further inland, design values are nearly 30 PPB above the standard

and there can be up to 70 exceedance days each year. These inland sites drive attainment emission reduction needs.

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This graph shows the reduction in the South Coast ozone design value since 1990. South Coast has made steady progress over the years, resulting from strategies that have reduced both ROG and NOx emissions.

Preliminary modeling for the 2016 SIP indicates that ongoing reductions of both ROG and NOx will continue to be essential for future progress. A combined strategy is necessary to address the large remaining inventory of anthropogenic ROG and NOx emissions.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: In contrast to the South Coast, ozone levels in the San Joaquin Valley are impacted by its geography, a large inland valley surrounded by mountains. Hot temperatures, coupled with air flow patterns that move pollutants throughout the valley results in ozone concentrations that are more uniform across the region.

As shown in green on the map, only a small portion of the San Joaquin Valley currently meets the 75 PPB standard, but a large portion of the valley is within 10 PPB.

The regions surrounding Fresno, the eastern

foothills, and Bakersfield record the highest concentrations. In these areas, design values are up to 20 PPB above the standard, with up to 55 exceedance days each area.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: Similar to the graph for the South Coast, this plot shows the reduction in the San Joaquin Valley ozone design value since 1990. Over the last decade, the rate of progress has increased, coincident with significant NOx reductions.

Preliminary modeling for the 2016 SIP shows that ozone will be most responsive to continued NOx reductions. In contrast, the modeling indicates that reducing anthropogenic ROG emissions will be less effective as the ROG inventory in the valley is dominated by natural sources.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: Now let's move onto PM2.5. U.S. EPA has promulgated PM2.5 standards to address both annual average chronic exposure as well 24-hour acute exposure. In the next few slides, I'll walk through each of these standards.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: Starting with the annual standard, U.S. EPA designated two areas as

non-attainment for the 15 microgram standard in 2005. These areas are the South Coast and the San Joaquin Valley. Annual design values in the South Coast, shown here in green, have been cut in half over the last decade. As a result, the South Coast attained the standard in 2013, one year before its required attainment date.

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Annual PM2.5 concentrations in the San Joaquin Valley have also decreased over the last decade. However, they continue to exceed the annual standard in many parts of the valley. Impacts related to drought have increased the challenge, as I will highlight in a few minutes.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: Next I'll move onto the 24-hour PM2.5 standard.

In 2009, U.S. EPA designated seven areas, shown in green and dark gray, as non-attainment for the 35 microgram standard. Today, four of these seven areas, shown in green, meet the standard. One additional area, Calexico, near the international border in Imperial County, would also meet the standard absent impact from the emissions from Mexicali, Mexico. South Coast is nearing attainment, with only one site still exceeding and is expected to attain the 35 microgram standard this year.

In contrast to those areas, the San Joaquin Valley remains the most challenging region, with levels

above the standard throughout much of the valley. The valley's current attainment date for the 24-hour standard is 2019.

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STAFF AIR POLLUTION SPECIALIST NYSTROM:
California's ongoing drought had a significant impact on
PM2.5 concentrations in the San Joaquin Valley in 2013 and
2014. The weather conditions and lack of rainfall
associated with the drought are also conducive to the
formation and accumulation of PM2.5.

The graph on the right shows the difference in the number of 24-hour exceedance days at Bakersfield and Fresno during December 2012 and January 2013 compared with the same months in 2013 and 2014.

During this two-month period, the valley experienced virtually no rainfall. The 24-hour PM2.5 standard was exceeded on a majority of days during these two months, a nearly three-fold increase over the prior period.

The increased wintertime concentrations also impacted the annual average, and the valley failed to meet the 15 microgram annual standard by its 2014 attainment date. As a result, the district is developing a revised PM2.5 SIP. The SIP will take into account the emission reductions necessary to attain under these drought

conditions.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: In addition to the annual and 24-hour standards I've already discussed, U.S. EPA adopted a more stringent 12 microgram annual PM2.5 standard in 2012. U.S. EPA finalized designation for this standard just last month and SIPs will be due in 2016.

There are four non-attainment areas for this standard shown in dark gray, and each area has its own unique set of challenges. These areas are required to meet the standard between 2021 and 2025.

As I discussed previously, the Calexico area of Imperial County is impacted by cross border transport from Mexicali, Mexico.

Portola, a small isolated valley in Plumas county, is impacted by wood burning used for home heating.

In the South Coast, more than half the region already meets the new 12 microgram standard, but ongoing reductions will be needed to bring the entire region into attainment.

Finally, similar to the other PM2.5 standards, the challenge in the San Joaquin Valley is the most severe and is further exacerbated by recent drought conditions.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: So far, I've talked about the successes and challenges we face in meeting the current federal standards for ozone and PM2.5.

U.S. EPA has also recently proposed adopting a new more health-protective 8-hour ozone standard.

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The federal Clean Air Act requires U.S. EPA to set national ambient air quality standards to protect public health and to review the adequacy of each standard every five years. As part of this process, U.S. EPA conducts a comprehensive review of the scientific evidence relevant to the protection of the public health and welfare.

As a result of its periodic review of the ozone standard, U.S. EPA recently proposed a new 8-hour standard in the range of 65 to 70 PPB. This lower level will provide increased health protection for California and the rest of the nation.

U.S. EPA will conduct a public hearing in this auditorium next week to gather public input and comments on the proposal. The standard will be finalized by October 1st of this year. And SIPs will be due in the 2020 to 2021 time frame. Attainment dates will range from 2020 to 2037.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: A new

standard of 65 or 70 PPB will likely result in additional non-attainment areas.

In the maps on this slide, the areas shown in dark gray are already designated as non-attainment under the current 75 or 80 PPB standard. The gold areas would be potential new non-attainment areas under the proposed standards. As shown on the left, there could be four new non-attainment areas for the new standard set at 70 PPB. As shown on the right, there could be twelve new non-attainment areas at a 65 PPB level.

These new areas would include a number of rural areas that are impacted by transport from upwind urban areas. It's important to note that the maps on this slide are based on 2014 design values. However, given the current schedule, U.S. EPA will likely make non-attainment designations in 2017, based on data through 2016. As ozone concentrations continue to decrease, some of these areas may attain the new standard before the designations are finalized.

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STAFF AIR POLLUTION SPECIALIST NYSTROM: This next map shows other US counties that would not meet a new 65 or 70 PPB standard based on 2013 design values. In total, U.S. EPA estimates that 358 counties would violate a 70 PPB standard. Two-hundred additional counties, or a

total of 558, would violate 65 PPB standard.

Californians are breathing healthier air.

STAFF AIR POLLUTION SPECIALIST NYSTROM: In summary, California has made great strides in improving statewide ozone and PM2.5 air quality and more

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Our current strategies continue to move us forward and ensure ongoing progress toward more stringent standards. As we begin the process of developing SIPs for the newest ozone and PM2.5 standards, regional differences will inform the development of strategies that focus on the most effective combination of controls.

Staff will bring these SIPs to the Board for consideration in 2015 and 2016.

This concludes my presentation. And we'll be happy to answer any questions you have.

CHAIRPERSON NICHOLS: I don't see any questions. And we don't have anyone who signed up to speak on this item. I expect we'll be hearing more about this issue, however, in the days to come as EPA moves to finalize the ozone standard. I think ARB is on record supporting a range, which includes the numbers that EPA is considering; is that correct? Did we formally testify on that? I think Karen or Kurt might respond to that.

DEPUTY EXECUTIVE OFFICER KARPEROS: We provided

comments with EPA -- when the Scientific Advisory

Committee originally proposed a range from 60 to 70. We said, yes, that was more health protective and that was appropriate. And the further down the range, the more health protective. EPA is now proposing out of that range of 60 to 70 a range of 65 to 70. And we'll be providing similar comments on that.

CHAIRPERSON NICHOLS: Clearly, it's a challenge, but a challenge we faced before and are used to managing. Thanks, everybody. Appreciate that very much.

And we do have three witnesses who have signed up to speak in the public comment period. So they are entitled to their few minutes to address the Board. I believe they're all here to talk about the same topic.

MR. CARMICHAEL: Good morning, Chairman Nichols, members of the Board.

Tim Carmichael with the California Natural Gas Vehicle Coalition. Thank you for the opportunity to speak. We don't normally do this on a non-agenda item, but intentionally doing it today so as not to distract from the LCFS focus next month.

We have been actively participating in the air quality improvement program development. There have been a couple of workshops. We had a couple meetings with staff managers talking about SB 1204 implementation, which

is a subset of the Air Quality Incentive Program. And we've been working closely, as you're going to hear from the Renewable Natural Gas Coalition, the California Bioenergy Association, and the California Trucking Association.

Our collective concern and the reason we're here today is we feel like it's not moving in the right direction, specifically related to incentives for heavy-duty trucks. We are not talking about passenger vehicles. We're not talking about medium-duty vehicles. Our concern collectively is really on the heavy-duty truck market where we feel like -- and we've been saying this for some time -- there is a critical need for focused incentives, not only for the development of those vehicles but for the deployment of those vehicles. And we're concerned that that's not the tract that we are on or the staff's current proposal development is not on that path.

And the impacts are significant. We won't -- our current belief is we're not going to see incentives South that will help deploy heavy-duty -- cleaner heavy-duty trucks in the near term. We won't see the assistance needed to support the low carbon fuel standard in getting more renewable natural gas into play between now and 2020. And we won't see the community health benefits that everyone knows is needed and significantly impacted by

heavy-duty trucks in our state.

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We're not looking for a solution today. But we want to put it on your radar screen, because this is going to move quickly over the next few months. And we really feel strongly it's not on the right path right now.

Again, comments are focused on the heavy-duty truck piece, not broadening that. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Mr. Kenny.

MR. KENNY: Good morning, Chair Nichols and members of the Board.

Just reiterating the previous comments. My name is Ryan Kenny with Clean Energy. We are a leading provider of natural gas transportation fuel in north America, also here on behalf of our trade association, the Coalition for Renewable Natural Gas.

And just to reiterate those points, we do believe staff has been attentive to meeting with us. We appreciated their time both in workshops and privately.

But we do reiterate the same concerns with the SB 1204 funding. We do believe that they're not dedicated as per statute to go towards heavy-duty trucks. In fact, there is some concern that staff is looking at broadening the definition of heavy-duty trucks into more the

medium-duty classification to broaden it to other technologies that might not be ready to go as much as liquefied natural gas would be to replace diesel at this time.

We do believe heavy-duty trucks going away from diesel to liquefied natural gas and other such technologies would reduce greenhouse gas emissions, especially in communities that are closer to major ports and along highways.

Also, the staff proposal has mentioned to allow the CEC to allocate funding towards renewable low carbon fuel production projects. We believe that the statutes are rather clear that the CEC should be complimenting the ARB funding, not replacing it. And we do believe that what the CEC allocates is just a fraction of what is needed.

So again, we're just here to flag and let you know of our concerns as this process unfolds. And thank you for your time.

CHAIRPERSON NICHOLS: Mr. Edgar.

MR. EDGAR: Good morning, Chair Nichols and Board members.

I'm Evan Edgar, Director of the Cleanfleets.net.

It's a treat for my to be in front of you again
this month. I was in front of you last month on the issue

of the fuel and technology assessment. And I had a very high praise for staff for being attentive to issue of renewable natural gas. I stand by those remarks. And just share with my colleagues that spoke previously, want to flag the issue of heavy-duty trucks. And what I'd like to do is just ask you to put a very high priority on renewable natural gas projects as you deliberate on what to do with GGRF money.

And the reason I'll do that in two minutes and 26 minutes, I'll take a little trip back to the future.

Tying into your priority discussion on the first item today, Supervisor Gioia was concerned about coordination between agencies and your Executive Officer replied about guidance. One of the big winners of the test case that we have for this type of project is in south San Francisco, Blueline Transfer Station where we're taking organic waste, converting it into motor vehicle fuel, and putting it back into electric vehicle. That's the test case or poster project for the R&G type of project I'm talking about.

That project in terms of guidance and the trifecta the Executive Officer Corey was talking about trying to hit one of the big targets on waste reduction as your staff noted as we were looking at the pie chart on what the greenhouse gas emissions are, waste reduction

delivers tremendous benefit.

These are carbon negative projects. When I say carbon negative, I mean it's consuming. It's a net benefit to the environment because the consuming of the waste resources of fuel completes the recycling loop and is a tremendous benefit and is carbon negative today. I know you have great targets for carbon negative in the future. These projects are carbon negative today.

Supervisor Serna, environmental justice part of your priorities, just a walk down memory lane, because Mrs. Riordan and I share a special affection over trash trucks. Because I think she's the only member of the Board that was sitting during 2000 to 2003. And I had a great walk down memory lane thinking about my testimony today about that experience. And the reason that you went after trash trucks in terms of diesel risk reduction is because they were local, they had tremendous fuel consumption. High fuel consumption, local communities, a lot of EJ issues there. That was part of the reason the rationale the Board used to work on trash trucks.

This is exactly the poster child for RNG to take what we've already -- diesel risk deduction we've done on trash trucks, take it to the next level of RNG.

I guess I'll just close with Hollywood has given us the answer. Back to the future where you saw the

banana peel and the liquid being put into the Delorian, we can do that on a heavy-duty vehicle. It's being done today. It's in its infancy. It needs to incentive to survive.

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I'm always appreciative on your staff's open ear and your Board's consideration of my testimony as well as putting it high on the priority list because the great bang for the buck it delivers. Thank you.

CHAIRPERSON NICHOLS: Okay. Thanks.

Mr. Corey, just briefly, what's the timing for the AQIP funding plan coming to the Board?

BOARD MEMBER SPERLING: Can you elaborate for us what exactly is the problem, the issue?

DEPUTY EXECUTIVE OFFICER COREY: The lack of a flux capacitor.

BOARD MEMBER SPERLING: I thought it was the fuel cell in the Delorian. The fuel cell, not a --

DEPUTY EXECUTIVE OFFICER COREY: A few things I think I can cover this.

The timing, Chairman, is the 15-16 AQIP plan will come to the Board in June. We have several months to continue to develop that plan. But there is a few points imbedded in the comments that were made. I want to touch on them.

So one is the benefits of the renewable natural

gas with respect to GHG benefits. And we would actually strongly support that. And in fact, we look at the AQIP plan to the extent we can incentivize the use of renewable if you want to do that. You can have a stronger signal.

But there was a comment about the need for cleaner technologies, reductions in emissions. And what that is really referring to is NOx. And under AQIP what we want to encourage are lower NOx emissions, not status quo certification to .2 grams per brake horsepower hour. We're looking for technologies that are certified to lower limits than the voluntary .01 or even down to .1 or even down to .02 and are looking how can we encourage the engine, the technology to be certified at those lower levels and open that opportunity to fund under AQIP. So fundamentally, as we look at the AQIP funding, we're looking at opportunities for further emission reductions and further emission reductions for NOx and GHGs.

CHAIRPERSON NICHOLS: I thought -- I know this isn't a hearing, and I'm not making any decisions or even giving directions at this point because this isn't an agenda item.

I was concerned about the comment about localized greenhouse gas emission reductions in environmental justice communities or impacted communities because those are communities that are impacted by conventional air

pollution. And they should be the focus of our attention for things that have multiple benefits.

So the question is: Would we be funding projects that only got GHG benefits if they didn't also have substantial air quality benefits to them as well. And the information that we were presented just now on where we stand with respect to meeting air quality standards suggests that NOx control has to continue to be front and center for our concerns.

DEPUTY EXECUTIVE OFFICER COREY: Chairman, that's really -- although I wasn't as clear as I wanted to be, the theme of the objective when we're talking about the AQIP plan, NOx reductions, and GHG reductions.

CHAIRPERSON NICHOLS: We obviously can't ignore greenhouse gases. That's a very much at the top of our agenda. But it isn't the only thing that's on our agenda either.

So anyway, we look forward to hearing more in more detail. We understand the point that clearly there is a strong effort here on behalf of people who care about heavy-duty vehicles to try to get more of the funds to go in the direction of natural gas. We understand that's something we have to take a look at. If there is no further business and no more witnesses, I think we --

BOARD MEMBER GIOIA: I was going to make one

comment. Since there was a discussion about the Superbowl this weekend. So I understand that the first national ad marketing an electric vehicle is going to be run during the Superbowl, the BMW I3. They are revealing an ad I saw. I saw the ad on the web.

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CHAIRPERSON NICHOLS: They did unveil it.

BOARD MEMBER GIOIA: They're spending a lot of money to sell electric vehicle around this country. So that actually will be interesting to see the reaction to that.

BOARD MEMBER MITCHELL: Chairman, Madam Chair, let me just comment that I had the opportunity during my stay here overnight in Sacramento to drive that new electric vehicle by BMW, and it truly is a wonderful vehicle. Everybody -- here's my own ad before the superbowl. It's truly a wonderful vehicle, such a smooth ride and very quiet and easy to drive.

BOARD MEMBER GIOIA: It's a state issue. It's becoming a state issue to the Air Resources Board staff, is that what it is?

CHAIRPERSON NICHOLS: They do bring vehicles over to test from time to time. They do.

CHIEF COUNSEL PETER: We have a closed session.

CHAIRPERSON NICHOLS: I'm sorry. As we are not actually formally adjourning. We are recessing to go into

a closed session and when we're done -- as far as I know, no action is planned. But should anything happen, we will report on it when we come back out and actually close the meeting. Thank you.

(Whereupon the Air Resources Board recessed into closed session at 11:58 a.m. and reconvened in open session at 12:40 p.m.)

CHAIRPERSON NICHOLS: We're back in open session. The Board conducted a closed session meeting at which we received legal advise from our counsel with regard to a procedural matter and also received a list and had a discussion about pending litigation. No action was taken on any of these items, so that was concluded, and I'm now ready adjourn the meeting. We are now officially adjourned. Thank you.

(Whereupon the Air Resources Board adjourned at 12:40 p.m.)

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me,
Tiffany C. Kraft, a Certified Shorthand Reporter of the
State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of February, 2015.

TIFFANY C. KRAFT, CSR, RPR Certified Shorthand Reporter License No. 12277