

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

CALEPA HEADQUARTERS
BYRON SHER AUDITORIUM
SECOND FLOOR
1001 I STREET
SACRAMENTO, CALIFORNIA

FRIDAY, JANUARY 27, 2017

9:12 A.M.

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

A P P E A R A N C E S

BOARD MEMBERS:

Ms. Mary Nichols, Chair

Ms. Sandra Berg, Vice Chair

Mr. Hector De La Torre

Mr. John Eisenhut

Senator Dean Florez

Supervisor John Gioia

Ms. Judy Mitchell

Mrs. Barbara Riordan

Supervisor Phil Serna

Dr. Alex Sherriffs

Professor Daniel Sperling

Ms. Diane Takvorian

STAFF:

Mr. Richard Corey, Executive Officer

Dr. Alberto Ayala, Deputy Executive Officer

Ms. Edie Chang, Deputy Executive Officer

Mr. Kurt Karperos, Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Ms. La Ronda Bowen, Ombudsman

Ms. Emily Wimberger, Chief Economist

Mr. David Edwards, Branch Chief, Greenhouse Gas and Toxics
Emission Inventory Branch, AQPSD

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

STAFF:

Ms. Trish Johnson, Air Pollution Specialist, Climate Change Policy Section, Industrial Strategies Division(ISD)

Ms. Stephanie Kato, Staff Air Pollution Specialist, Energy Section, ISD

Ms. Karen Magliano, Division Chief, AQPSD

Mr. Gabriel Monroe, Attorney, Legal Office

Ms. Rajinder Sahota, Assistant Division Chief, ISD

Ms. Beth Schwehr, Staff Air Pollution Specialist, Toxics Inventory and Special Projects Section, Air Quality Planning and Science Division(AQPSD)

Mr. Jon Taylor, Assistant Division Chief, AQPSD

Mr. Gabe Ruiz, Manager, Toxics Inventory and Special Projects Section, AQPSD

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

Mr. Floyd Vergara, Division Chief, ISD

Mr. Daniel Whitney, Attorney, Legal Office

ALSO PRESENT:

Ms. Fariya Ali, Pacific Gas & Electric

Mr. Bud Beebe, California Hydrogen Business Council

Mr. Nathan Bengtsson, Pacific Gas & Electric

Mr. Brian Biering, Turlock Irrigation District

Mr. Louis Blumberg, Nature Conservancy

Mr. Michael Boccadoro, Dairy Cares

Dr. Jim Bushnell, University of California, Davis

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

ALSO PRESENT:

Ms. Julia Bussey, Chevron Corporation

Mr. Michael Carr, Shell

Ms. Betty Chu, Calpine

Mr. Jon Costantino, Ad Hoc Offset Group

Ms. Christina Darlington, Placer County Air Pollution
Control District

Ms. Martha Dina Arguello, Environmental Justice Advisory
Committee

Mr. Evan Edgar, California Compost Coalition

Mr. Nick Facciola, Origin Climate, Inc.

Mr. Quentin Foster, Environmental Defense Fund

Mr. Ryan Gardner, Rincon Consultants

Mr. Scott Hedderich, Renewable Energy Group

Ms. Bonnie Holmes-Gen, American Lung Association in
California

Mr. Gary Hughes, Friends of the Earth

Ms. Melissa Immel, Solid Waste Association of North
America, California Chapters

Mr. Alex Jackson, Natural Resources Defense Council

Ms. Claire Jahns, Assistant Secretary, California Natural
Resources Agency

Mr. Jakob Lagercrantz, 2030 Secretariat

Ms. Jenny Lester Moffitt, Deputy Secretary, California
Department of Food and Agriculture

Mr. Lloyd Levine, California Emerging Technology Fund

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

ALSO PRESENT:

Mr. Bill Magavern, Coalition for Clean Air

Mr. Paul Mason, Pacific Forest Trust

Ms. Amy Mmagu, California Chamber of Commerce

Honorable Glen Murray, Minister of the Environment and
Climate Change, Government of Ontario

Ms. Urvi Nagrani, Motiv Power Systems

Mr. Brent Newell, Center on Race, Poverty and the
Environment

Mr. Rob Oglesby, Executive Director, California Energy
Commission

Mr. Arjun Patney, American Carbon Registry

Mr. Ed Pike, Energy Solutions

Mr. Michael Pimentel, California Transit Administration

Mr. Ed Randolph, California Public Utilities Commission

Ms. Tiffany Roberts, Western States Petroleum Association

Ms. Jamesine Rogers Gibson, Union of Concerned Scientists

Ms. Mary Rose Taruc, Environmental Justice Advisory
Committee

Mr. Michael Shaw, California Manufacturers and Technology
Association

Mr. Mikhael Skvarla, California Council for Environmental
and Economic Balance

Mr. Adam Smith, Southern California Edison

Ms. Fran Spivy-Weber, Board Member, California State Water
Resources Control Board

Ms. Shelly Sullivan, Climate Change Policy Coalition

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

ALSO PRESENT:

Ms. Eleanor Torres, Environmental Justice Advisory Committee

Ms. Katie Valenzuela Garcia, Environmental Justice Advisory Committee

Ms. Diana Vazquez, California Environmental Justice Alliance

Ms. Kate White, Deputy Secretary, California State Transportation Agency

Mr. Randall Winston, Strategic Growth Council

Mr. Vincent Wiraatmadja, BYD Motors

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1 P R O C E E D I N G S

2 CHAIR NICHOLS: Good morning, ladies and
3 gentlemen. The meeting of the Air Resources Board of
4 January 27th, 2017 will come to order. And before we
5 begin the formal proceedings, we will please stand and say
6 the Pledge of Allegiance to the flag.

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

9 CHAIR NICHOLS: Madam Clerk, would you please
10 call the roll?

11 BOARD CLERK McREYNOLDS: Dr. Balmes?

12 Mr. De La Torre?

13 Mr. Eisenhut?

14 Senator Florez?

15 BOARD MEMBER FLOREZ: Here.

16 BOARD CLERK McREYNOLDS: Supervisor Gioia?

17 BOARD MEMBER GIOIA: Here.

18 BOARD CLERK McREYNOLDS: Ms. Mitchell?

19 BOARD MEMBER MITCHELL: Here.

20 BOARD CLERK McREYNOLDS: Mrs. Riordan?

21 BOARD MEMBER RIORDAN: Here.

22 BOARD CLERK McREYNOLDS: Supervisor Roberts?

23 Supervisor Serna?

24 BOARD MEMBER SERNA: Here.

25 BOARD CLERK McREYNOLDS: Dr. Sherriffs?

1 Professor Sperling?

2 BOARD MEMBER SPERLING: Here.

3 BOARD CLERK McREYNOLDS: Ms. Takvorian?

4 BOARD MEMBER TAKVORIAN: Here.

5 BOARD CLERK McREYNOLDS: Vice Chair Berg?

6 VICE CHAIR BERG: Here.

7 BOARD CLERK McREYNOLDS: Chair Nichols?

8 CHAIR NICHOLS: Here.

9 BOARD CLERK McREYNOLDS: Madam Chair, we have a
10 quorum.

11 CHAIR NICHOLS: Very good. Thank you.

12 Welcome to our new clerk. This morning. We have
13 a new voice calling the roll here, so everybody. Rana,
14 welcome.

15 (Applause.)

16 CHAIR NICHOLS: It's an awesome responsibility.
17 It really is actually. Calling the roll is the easy part.

18 Okay. Just a couple of announcements before we
19 get started. First of all, we will have interpretation
20 services in Spanish available for our first item today,
21 the public meeting to hear a report on the proposed 2030
22 target scoping plan. Headsets are available outside the
23 hearing room at the attendance sign-in table, and can be
24 picked up at any time. And I will ask the translator to
25 just -- to repeat what I just said in Spanish.

1 (Thereupon the interpreter translated.)

2 CHAIR NICHOLS: Gracias.

3 Anyone who wishes to testify should fill out a
4 request to speak card. And those cards are also available
5 in the lobby outside the Board room, or I think at the
6 clerk's desk, if they run out. But we really appreciate
7 it if you fill the cards out early if you think you're
8 going to testify, even if you decide you don't want to
9 testify later, because it helps us to organize our time,
10 and to get the list together in advance.

11 So please do that. We will be imposing our usual
12 3 minute time limit on oral testimony. And we appreciate
13 it if you'd give your name when you come up to the podium,
14 but then put your testimony in your own words as opposed
15 to just reading it. If you have written testimony, it
16 will get filed and we will read it. And so we can use the
17 time with you at the podium to summarize your words and
18 make your points here.

19 I'm also required to inform you that we need to
20 point out the emergency exits to the rear of the room.
21 And in the event of a fire alarm, we're required to
22 evacuate this room immediately, and go down the stairs,
23 and out of the building until the all-clear signal is
24 given. And then we can return to this hearing room and
25 get back to the hearing.

1 Okay. I think that's it for the preliminary
2 announcements.

3 Usually, in the first Board meeting of the year,
4 we start off with a report from the Executive Officer
5 outlining the Board staff's plan, their workload for the
6 year, and giving a sense of their priorities, but we've
7 postponed that report until later in the day in order to
8 make sure that all the Board members and the public can
9 participate in this discussion that we're going to be
10 having about the proposed scoping plan for the 2030
11 target.

12 This is the first of 3 hearings that the Board
13 has planned on this topic. We are -- we are planning, and
14 I believe we will, adopt a final plan this spring. But at
15 this point in the process, what we are considering is a
16 draft, which is designed to achieve the legislatively --
17 now legislatively mandated 2030 climate goals.

18 The Board, I think it's fair to say on behalf of
19 all of us, is strongly committed to achieving the goal,
20 but flexible about the path we take to get there. We know
21 that climate change is happening. We know that it's
22 impacting California. And we know that we need to act
23 with courage and perseverance.

24 This is an important moment for California as we
25 find ourselves back on the defensive line when it comes to

1 protecting both the health of our people and the planet
2 from harmful pollution. We have the tools, and we have
3 the experience, we have the science, we have the
4 authority, and the commitment. The plan that we're
5 beginning to look at today is really a doubling down on
6 our climate programs to date in order to take the actions
7 that are needed to minimize the worst impacts of climate
8 change.

9 The plan is a result of a multi-year deliberate,
10 open, science-based policy-making process, which is just
11 how we do things here. It's one among many public
12 conversations that we've already had regarding the
13 development of a proposed scoping plan. And it's another
14 step along the road to achieving our target goal, which is
15 to reduce our greenhouse gas emissions to 40 percent below
16 1990 levels by 2030.

17 This is ambitious a goal as has been set anywhere
18 in the world. It's one that we know is not simple to
19 meet, but we have strong direction to do it, and we think
20 that we have the ability to do it.

21 We also believe that we have some clear direction
22 from the legislature about the kind of analysis that they
23 want us to do in adopting a plan, and we are attempting to
24 follow that direction.

25 We are here to listen now to all variety of

1 viewpoints. We welcome comments, not only from people in
2 the room, but people who want to send in comments on our
3 website, or by mail, any means will do, but we do want to
4 hear from people.

5 We also want to sharpen the focus on what the
6 path forward should look like, not just as one policy or
7 one project at a time, but really looking at a ongoing
8 program that will balance a number of different important
9 objectives that we, as Californians, have, which obviously
10 include meeting our climate goals, but also include
11 improving air quality, and public health, including making
12 genuine and important strides in addressing those issues
13 in our most disadvantaged communities.

14 We also want a plan that supports economic growth
15 and jobs in California, and finds ways to expand our ideas
16 and action beyond our borders and over a longer period of
17 time. So as we begin this process of thinking about the
18 future, I think it's also worthwhile just briefly
19 recapping how we got to where we are today.

20 When AB 32 was passed and signed into law 10
21 years ago, it was the first program anywhere to require a
22 comprehensive and binding approach to reducing greenhouse
23 gas emissions. At that time, many people hadn't ever
24 thought about a framework for how you could put policies
25 together or how to set priorities for meeting what was

1 then the 2020 target, which was the same target as the
2 Kyoto treaty, which was to get to 1990 levels by 2020.

3 California began the work of putting together a
4 process, taking advantage of economic, and technical, and
5 market assessments with input from experts around our
6 State and even from other places as well, including
7 various kinds of academic and other experts. And we spent
8 thousands of hours in public workshops, stakeholder
9 meetings, and dialogue with experts. And these were
10 meetings that were very useful not only to ARB and our
11 knowledge and ability to do our job, but I think towards
12 bringing about a level of consensus as to what needed to
13 be done that has stood us in very good stead as we move
14 forward in implementing these plans.

15 Throughout that process, we established a
16 framework that now has California's greenhouse gas
17 emissions on a path -- a declining path, while our economy
18 continues to grow faster than the rest of the country.

19 And the framework that we adopted in that first
20 scoping plan also provided a foundation for policies that
21 are being adopted in other states and countries. In fact,
22 we are welcoming here today, and I'll be introducing
23 shortly, one of our international partners Minister Glen
24 Murray from the Province of Ontario, who happened to be in
25 town and offered to give us a few comments about our

1 collaborative efforts.

2 The 2030 targets established by SB 32, the 2030
3 target, calls on us to reduce greenhouse gases at an
4 accelerated rate. I'm confident in our ability to do so,
5 because I've seen what we've been able to do over the last
6 10 years.

7 Not only have our results frequently exceeded our
8 estimates of what we would be able to accomplish through
9 some of our regulatory efforts, but we've also been able
10 to show that if something isn't working out exactly as
11 it's planned, that we can change it, that we can fix it,
12 that we're able to continuously work to improve our
13 efforts.

14 And this is a point that I really want to
15 underscore here today, because the adoption of a scoping
16 plan is not the end of a story. It is an ongoing
17 milestone. It's designed to give assurance that the State
18 is working on the problem and that we have a way of doing
19 it, but it is by no means the final word on how we're
20 going to go about doing our program. In fact, it would be
21 almost the opposite. We expect that whatever we end up
22 adopting later in the spring will be modified over the
23 years as time goes by, and, in particular, that it will be
24 modified in response to new science, new important
25 information that shows us that we may need to change

1 course in some way.

2 And we've already done that as time has gone on.
3 For example, in increasing the focus on certain areas of
4 greenhouse gases that were not much part of the original
5 plan. So the plan won't implement itself, but I think it
6 is important that we -- that we state at the outset that
7 we do understand that our efforts here are intended to go
8 hand in hand with California's efforts to also maintain
9 its economy, and improve its well-being of its people, to
10 increase jobs, and to maintain a quality of life that
11 continues to be an attraction for people from around the
12 world.

13 So we've got a lot of work to do, and we
14 particularly know that integrating our various programs,
15 even within the Air Resources Board to make sure that our
16 air quality programs and our climate programs are working
17 together and not only not interfering with each other, but
18 actually enhancing and supporting each other is a key
19 issue and it's something that frankly isn't easy to do
20 given the various disparate legislative mandates and
21 programs that have grown up over the years, but we're
22 determined to do this.

23 So despite the amount of work that we know is
24 ahead, we believe, based on the analysis that has been
25 done to date, both by ourselves and others, that under the

1 proposed plan that we're going to be discussing starting
2 today that California will meet the 2030 target. And so
3 our task is to now begin to find the best way to get there
4 that aligns with all the different -- all the different
5 goals that we've had set for us.

6 We know that we're being watched, not just today,
7 but in general. The 194 countries that signed the Paris
8 agreement, and the 165 entities, states, and regions and
9 countries that have signed the Under 2 MOU represent a
10 billion people, and over a third of the global economy.

11 So with those efforts in mind, we recognize that
12 whatever it is we do here is going to have an impact
13 beyond our borders.

14 We also have an ongoing desire and a very active
15 effort to seek out the best science that we can find, as
16 well as to seek the advice of economists and to help
17 improve the tools that are available to do assessment of
18 our work. Because while no one discipline will give us
19 the exact answer, unfortunately, there's not yet a button
20 that you can push that will tell you what should be in the
21 scoping plan. We do know that relying on a variety of
22 different types of expertise will strengthen our ability
23 to come out with something that is -- that is valuable and
24 good.

25 So with that in mind, I think I will now turn

1 to -- excuse me, to our Executive Officer, Richard Corey,
2 to give an introduction to the staff presentation.

3 EXECUTIVE OFFICER COREY: Thank you, Chair
4 Nichols. As you mentioned, this is the next step in the
5 process to develop California's plan to meet the 2030 GHG
6 target. We work closely with our sister agencies, many
7 who you'll hear from today, in the development of the
8 proposed plan, and we have conducted extensive public
9 outreach soliciting input from the Environmental Justice
10 Advisory Committee, community and environmental justice
11 organizations, environmental groups, local agencies,
12 industry representatives, and others interest -- and other
13 interested stakeholders.

14 These engagement efforts will continue through
15 the development of the final scoping plan. We kicked off
16 the process in summer of 2015 with workshops on the
17 Governor's pillars to reduce greenhouse gases. This was
18 followed by an interagency kick-off workshop in early
19 October 2015, a concept paper in June 2016, a discussion
20 draft in fall of 2016, and finally, the proposed plan
21 released earlier this month.

22 During this time, we held 15 public workshops
23 through the State focused on the development of the
24 proposed plan.

25 Today, we're providing the Board with a briefing

1 on our proposed plan and an opportunity for the EJAC and
2 the public to comment. We'll come back to the Board in
3 February for another update after stakeholders had time to
4 digest the proposed plan that they can provide additional
5 comments prior to the development of the final plan.

6 We're also proposing to delay the Board's
7 consideration of the plan from March to April to allow
8 additional time to incorporate input from the public.
9 We're confident that the final plan will help California
10 achieve its climate change goals, protect public health,
11 especially in vulnerable communities, and support the
12 transition to a sustainable, low-carbon economy.

13 And with that, I'll now ask Trish Johnson to give
14 the staff presentation.

15 Trish.

16 (Thereupon an overhead presentation was
17 presented as follows.)

18 AIR POLLUTION SPECIALIST JOHNSON: Thank you, Mr.
19 Corey.

20 CHAIR NICHOLS: Excuse me, Mr. Corey. I am a
21 little confused about timing of things, and partly because
22 things have shifted around. But I was under The
23 impression that Mr. Murray was going to have to leave
24 before we could complete the staff report, is that true,
25 and if so, would you like to come forward at this point

1 and give us a few words of wisdom here, or it's up to you.
2 I don't want to disrupt the flow of this.

3 EXECUTIVE OFFICER COREY: If the Minister is
4 ready to, I think that would be fine.

5 CHAIR NICHOLS: Okay. Then why don't we go ahead
6 and take you out of order, just so -- we don't often have
7 guests from abroad -- well, abroad -- foreign place. Are
8 both podiums working or just one?

9 Just the one. Okay. Sorry. Sorry for the
10 confusion.

11 MINISTER MURRAY: No. Rich is a friend. I don't
12 want to up-end his presentation. I need to keep him as a
13 friend.

14 CHAIR NICHOLS: Yeah. Yeah. Understood.

15 (Laughter.)

16 MINISTER MURRAY: Just on behalf of our Premier,
17 Premier Wynne, and to Governor Brown and all of you, your
18 valued friendship now is extraordinarily important at a
19 very difficult time and moment in the fight against
20 climate change. The entire effort is really pivotal and
21 Governor Brown and the ARB are planning a hope-inspiring,
22 as well as a practical, approach to dealing with the
23 existential crisis of our time.

24 And I think in Canada we're cheering for you, and
25 we're deeply honored to be such an important partner, and

1 to have you as such an important part in this effort. So
2 thanK you very much. And God bless and keep you safe
3 hopeful in this effort.

4 Just a few observations. We have just gone
5 through this exercise in Canada. And your team here
6 across the California government and Cal EPA were great
7 partners in the development of ours. And you'll notice,
8 if you read our climate action plan, it looks very similar
9 to the scoping exercise that California is involved in.

10 We are advancing our cap-and-trade system to link
11 with yours, with the same standard and rigor, with the
12 important dividends. And Ontario it will be about \$8
13 dollars focused heavily on a social justice, social equity
14 lens, very similar to the kinds of work that's been done
15 under the leadership of people like Kevin de León. We're
16 focusing on priority neighborhoods. We have \$3.6 billion
17 going into buildings, most of that into affordable
18 housing, social housing, and building up the capacity of
19 that, and dealing with very clearly, even in private and
20 low-income housing, the transformation of housing,
21 especially for renters who don't control the costs or
22 their abilities to do GHGs.

23 The other thing we're recognizing, while cap and
24 trade has been the most effective mechanism, and because
25 of California's decade-long leadership on this, it has

1 become the foundation for the most effective -- cost
2 effective pricing mechanism to reduce greenhouse gases in
3 North America.

4 In fact, California, Quebec, and Ontario being a
5 unique binational partnership, whether it's in air quality
6 standards for vehicles and emissions or climate change, we
7 are able to set standards that basically determine what
8 the new normal and what the standard is for North America.
9 And after Paris, our partnership of 3 jurisdictions is
10 seen as one of the leading jurisdictions in establishing
11 successful information -- implementation of the Paris
12 agreement.

13 I don't think anyone else -- you -- it doesn't
14 matter whether you're in Georgia or Saskatchewan, you
15 basically have to meet the standards that we're taking.
16 And that's a remarkable responsibility to be generous and
17 listen to people, but it is also a moral responsibility to
18 make sure we do enough.

19 The final thing I would say, it is not the only
20 environmental issue. And as with climate change impacting
21 most on the people who cause the least amount of problems
22 of indigenous people, racialized people, low-income
23 people, we have lined up with you and continued to work on
24 everything from benzene, to mercury, to all kinds of
25 contaminants and air quality issues, particularly in

1 low-income neighborhoods.

2 And we have to continue that. It is not
3 either/or. If we don't fight climate change in Ontario,
4 which was warming 2 to 3 times fast, we lose the boreal
5 forest in the next few decades, that absorbs 26 times all
6 global human emissions. If that went down, it would
7 basically dwarf our efforts to fight climate change and
8 render the remediation of human emissions and the
9 liveability of this planet being -- it would end it. We
10 would not be -- this would not be liveable. But we have
11 to maintain those comprehensives. And I look forward to
12 that partnership.

13 On the economic opportunities - and I will just
14 conclude with this, because I know you've got a busy day -
15 it's interesting that our economies are the strongest.
16 Ontario and Quebec are leading Canada. We're 60 percent
17 of Canada. We have the strongest per capita GDP growth.
18 We have the fastest falling unemployment rate and the
19 highest level of job growth. You see California leading
20 the United States and leading the world in economic
21 development.

22 And it's interesting to me, and we -- the only
23 real rivalry we have between California and Ontario is
24 who's first in direct foreign investment. The Economist
25 magazine and our business magazines love to look at how

1 much capital are you attracting to your jurisdiction as
2 the biggest indicator of whether your public policies are
3 economically sound.

4 Well, you beat us this year. You're number one
5 for direct and foreign investment. You -- we had first
6 place last year. But for the last several years, it has
7 alternated between California and Ontario as who's led in
8 direct foreign investment. We are creating more jobs.

9 Because what I think we share, our Premiers, our
10 Governors share, is this belief that we don't win by
11 thickening our borders. We win by deepening our
12 commitments to each other and to the planet. And our
13 partnerships in Mexico, and the meetings that were there,
14 have actually strengthened that as well. And we are all
15 coming out ahead.

16 So thank you for being helpful, for being
17 generous, for being prosperous, and for being just and
18 fair. And on behalf of the people of Ontario, and I think
19 I can say for the people of Quebec, we're very glad to
20 see, in the scoping exercise, the commitments to many
21 continued policies that we share, and that we can build a
22 platform in North America to tackle in a just and fair way
23 one of the greatest crisis of our time.

24 Madam Chair, very honored to call you a friend.
25 And I'm glad you were able to introduce me to so many of

1 your wonderful partners. You have an amazing organization
2 here with the ARB, which is influencing the world. And
3 this is an extraordinary mix of competency based
4 appointments -- not that anyone is incompetent, all
5 competency based --

6 (Laughter.)

7 MINISTER MURRAY: -- and also representatives.
8 And many of us are looking to the ARB, not only for the
9 substantive leadership, but also as a model for democratic
10 and great decision making. So thank you for including me
11 today. And I hope I didn't overstay my welcome.

12 Thank you very much.

13 CHAIR NICHOLS: Thank you so much.

14 (Applause.)

15 BOARD MEMBER GIOIA: Madam Chair?

16 CHAIR NICHOLS: I knew if I called on Minister
17 Murray that he would give us a rousing invocation to start
18 the day, and he has.

19 BOARD MEMBER GIOIA: Madam Chair?

20 CHAIR NICHOLS: So thank you so much.

21 Yes, Mr. Gioia.

22 BOARD MEMBER GIOIA: And just let me note that
23 Minister Murray was one of the last speakers at
24 yesterday's Climate Symposium, where about 800 scientists,
25 community leaders, advocates, policymakers from around the

1 State attended. And I have to say that your closing
2 comments really provided hope, because you talked about
3 Canada's experience with a former Prime Minister, not
4 unlike the current administration that's sort of
5 sidetracked on climate change and how the Provinces kept
6 the momentum going.

7 And I think that was a really -- that's why you
8 received a great ovation at the end, because your signal
9 of hope is important for us to understand, and learning
10 from your experience in Canada.

11 CHAIR NICHOLS: Great. Thank you.

12 Thanks so much for being with us.

13 Okay. Now, before we return to the staff
14 presentation, I do want to say one other thing, which I
15 was trying to sort of figure out when was the right -- the
16 best time to say it.

17 But I have been speaking to several of my Board
18 members - less than a quorum I can assure you - about how
19 to respond to requests that we have received, both from
20 the Environmental Justice Advisory Committee and from
21 others to delay, in some way or another, the time frame to
22 give more time for comment on this report.

23 And I want to say, first of all, that I agree
24 that there -- the report that we are talking about today
25 hasn't been out for very long. It's quite new. Not

1 everybody has had a chance to review it thoroughly. And
2 also, that there are some of the ongoing studies that may
3 as -- may continue to provide information as we go
4 forward.

5 As I said at the beginning, there's always going
6 to be new science and new information that impacts our
7 work. And to the extent that it calls for changes, we
8 have to be prepared to either reopen or amend the plan.
9 But with respect to one of those reports that has been
10 talked about, and that was the subject of an executive
11 order from the Governor, which is the study of the health
12 impacts of the scoping plan, that report is not here. We
13 expected it any day, and we still do expect it any day.
14 To the best of my knowledge, it's undergoing its
15 absolutely final review and will be published, you know,
16 within a matter of days, as opposed to weeks or months.

17 But we don't know, because it hasn't been
18 released yet exactly what it's going to say or how it will
19 impact people's thinking about the -- about the scoping
20 plan.

21 And so I think it's important that we say at the
22 outset that we expect that the February hearing, which is
23 already scheduled to review the scoping plan -- for
24 further review of the scoping plan will address the OEHHA
25 report. And depending on what it says, and how we respond

1 to it, we will make a decision as to how long the comment
2 period needs to be extended under CEQA.

3 So rather than making an arbitrary decision today
4 about X number of days for the closing of the CEQA comment
5 period, we have the ability to extend it. So it's
6 currently set at 45 days, which is the legal -- the legal
7 minimum requirement, we can make it longer if the Board
8 decides that we need to do that, and we will make it
9 longer depending on what we find.

10 But I think it's important before we say how
11 long, and then keep doing new notices, to actually have
12 the report before making that decision. So, you know,
13 those of you who are seeking additional time, I just want
14 to assure you that there will be additional time, but we
15 can't tell you exactly at this moment how long -- how much
16 additional time, because we don't know ourselves how much
17 we think is needed based on the information it is likely
18 to contain.

19 So with that, I will now turn it back to the
20 staff to do the their presentation.

21 So, Ms. Johnson.

22 AIR POLLUTION SPECIALIST JOHNSON: Thank you.

23 And good morning, Chair Nichols, Vice Chair Berg,
24 and members of the Board.

25 Today, I'll provide a report on the 2017 Climate

1 Change Scoping Plan update that contains the proposed
2 strategy for achieving California's 2030 greenhouse gas
3 target, and was released on January 20th. The proposed
4 plan was informed by interagency working groups, the
5 Environmental Justice Advisory Committee, comments
6 received at public workshops, and legislative direction.

7 This is the first of 3 Board hearings for the
8 scoping plan. The second Board hearing is scheduled for
9 next month and a third is scheduled for April.

10 --o0o--

11 AIR POLLUTION SPECIALIST JOHNSON: The
12 presentation includes an overview of key elements included
13 in the proposed plan. This includes an overview of
14 climate directives and legislation that guide the proposed
15 plan, and a discussion about the Environmental Justice
16 Advisory Committee and their recommendations.

17 Next, I'll move into a more in-depth discussion
18 about the proposed strategy to achieve the 2030 target and
19 the alternatives staff considered.

20 The presentation will conclude with a discussion
21 on collaboration and implementation followed by next steps
22 for developing the final plan.

23 --o0o--

24 AIR POLLUTION SPECIALIST JOHNSON: It's good to
25 remind ourselves of the background for the scoping plan.

1 This proposal describes how the State will reduce
2 greenhouse gas emissions by 40 percent below 1990 levels
3 by 2030, the most ambitious target in North America.

4 The plan builds on the State's successful efforts
5 to reduce greenhouse gas, criteria, and toxics emissions
6 and work done in previous scoping plans. And the target
7 is consistent with consensus on how much we need to reduce
8 greenhouse gases to avoid the most harmful impacts of
9 climate change.

10 As I will present in a few minutes, our
11 greenhouse gas emissions have declined due to the
12 successful design and implementation of many policies and
13 programs. The proposed plan describes how these programs
14 can continue to play an important role in achieving the
15 2030 target.

16 In particular, the proposed suite of policies
17 provides certainty in achieving the State's 2030 target
18 and promotes technology, energy and economic
19 transformation that will make our communities and economy
20 more resilient and equitable at the same time.

21 --o0o--

22 AIR POLLUTION SPECIALIST JOHNSON: AB 32 directed
23 CARB to develop a scoping plan to layout the path to
24 achieve the 2020 limit. The first scoping plan was
25 developed and adopted in 2008, and it is required to be

1 updated at least every five years.

2 In 2015, Governor Brown issued an Executive Order
3 to establish a mid-term target of 40 percent below 1990
4 level emissions by 2030, and directed CARB in coordination
5 with sister agencies to update the scoping plan to
6 incorporate the new target.

7 Last year, the legislature passed SB 32, which
8 codified the 2030 limit in statute. Along with SB 32, the
9 legislature passed AB 197. AB 197 provides direction on
10 the development of the scoping plan to consider the
11 societal costs of greenhouse gas reductions, prioritize
12 measures resulting in direct emission reductions, and also
13 follow existing requirements in AB 32 to consider the cost
14 effectiveness of measures in the scoping plan and minimize
15 leakage. The requirements in 197 are included in the
16 proposed plan.

17 --o0o--

18 AIR POLLUTION SPECIALIST JOHNSON: The graphic
19 shown on this slide depicts the 1990 level greenhouse gas
20 emissions and 2020, 2030, and 2050 targets, as well as the
21 necessary reductions to achieve those targets. The
22 proposed plan demonstrates how reductions will be needed
23 across all sectors to achieve the 2030 target and outlines
24 the next steps for the natural and working lands sector,
25 which must play a critical role in meeting both our

1 mid-term and long-term targets.

2 --o0o--

3 AIR POLLUTION SPECIALIST JOHNSON: This slide
4 lists some key objectives to achieve the 2030 limit. A
5 primary goal of the scoping plan is to achieve the 2030
6 limit and put us on the path to achieving the long term
7 2050 limit of 80 percent reductions below 1990 levels. We
8 believe the proposed plan includes features that provide
9 the highest certainty that we can achieve this target.

10 We want to provide direct greenhouse gas emission
11 reductions in our largest economic sectors to ensure our
12 economy is transitioning to a more sustainable production
13 in energy.

14 The plan should also minimize leakage and ensure
15 any reductions in California are not a result of
16 relocation of these sources or production out of state,
17 which, in some situations, could actually lead to an
18 increase in greenhouse gas emissions.

19 The scoping plan must include a mechanism to
20 support climate investment for programs in disadvantaged
21 communities to ensure these communities can benefit from
22 clean technology, and fuels, and become more resilient in
23 the face of climate change. To date, approximately \$470
24 million from cap-and-trade auction proceeds are being used
25 for projects to benefit disadvantaged communities.

1 hydropower. This is not surprising as we have been in a
2 multi-year drought.

3 Our current modeling shows that we will achieve
4 our 2020 target and will get a head start on our way to
5 the 2030 target.

6 --o0o--

7 AIR POLLUTION SPECIALIST JOHNSON: As mentioned
8 earlier, our existing programs are delivering the
9 reductions to achieve the 2020 target. The foundation of
10 policies and programs will continue to play an important
11 role after 2020. Many of the programs were developed
12 through a multi-year stakeholder process. Therefore,
13 there is existing infrastructure to implement the programs
14 and high compliance rates demonstrate the ability of the
15 regulated entities to understand and take actions needed
16 to comply.

17 The smooth transition of these programs to a
18 post-2020 period is an important step in ensuring the
19 programs continue to reduce emissions and provide
20 regulatory certainty for regulated entities.

21 While we have continued to make progress towards
22 our climate target, we have also seen the State's economy
23 continued to grow. Today, California is the world's 5th
24 largest economy, and per capita and per dollar GDP
25 emissions have declined. We are proof that addressing

1 climate change can go hand in hand with a robust and
2 growing economy.

3 --o0o--

4 AIR POLLUTION SPECIALIST JOHNSON: Not only is
5 this plan founded in existing climate programs, but also
6 builds and incorporates on other ongoing efforts at the
7 State level. This slide shows newly released or draft
8 plans that also include greenhouse gas benefits. The
9 proposed plan leverages the actions in these plans and
10 lays out how they support the State's climate goals.

11 Indeed, some of these plans may primarily address
12 specific issues, such as clean freight, actions to meet
13 federal air quality standards, sustainable communities,
14 but they also provide greenhouse gas reductions and are
15 key components of the proposed plan.

16 There are additional plans, beyond those shown on
17 this slide, that are or will be reflected in the scoping
18 plan, such as the Forest Carbon Plan, the safeguarding
19 California plan, and the Office of Environmental Health
20 Hazard Assessment AB 32 report.

21 --o0o--

22 AIR POLLUTION SPECIALIST JOHNSON: The proposed
23 plan was developed by CARB staff over the past 18 months,
24 working with multiple State agencies and departments. Our
25 collaboration with sister agencies started with a kick-off

1 workshop in October of 2015 to initiate the public process
2 to update the scoping plan. This effort was guided by
3 direction provided in legislation, and reflects input from
4 a substantial number of public workshops and community
5 meetings, and input from the Environmental Justice
6 Advisory Committee and many stakeholders.

7 AB 32 directs ARB to convene an Environmental
8 Justice Advisory Committee, or EJAC, to advise on the
9 development of the scoping plan. The EJAC was reconvened
10 for this update and has held more than 20 public committee
11 meetings and community meetings in various locations
12 across the State.

13 The Committee has developed recommendations for
14 the proposed plan, both overarching and by sector, which
15 were included as Appendix A. The Committee has and will
16 continue to conduct public discussions on the development
17 of the scoping plan update. All committee meetings are
18 public and include the opportunity for interested
19 stakeholders to provide comments.

20 In order to ensure a robust economic analysis,
21 for the scoping plan, we have established a group of
22 expert peer reviewers who are serving in an advisory
23 capacity in the assessment of the economic impacts of the
24 scoping plan.

25 Finally, the plan includes the analyses required

1 in AB 197 and a CEQA analysis.

2 --o0o--

3 AIR POLLUTION SPECIALIST JOHNSON: The
4 Environmental Justice Advisory Committee launched a robust
5 community engagement process conducting 11 community
6 meetings throughout the State, and collecting hundreds of
7 individual comments. To enhance the opportunity for
8 attendees, CARB coordinated with local government agencies
9 and sister State agencies to hold roundtable discussions
10 with local residents about specific climate issues that
11 impact their lives.

12 This effort was well received and attended by
13 local community residents and initiated a new community
14 engagement endeavor for CARB. The Committee has also met
15 12 times across California since December 2015 to discuss
16 the scoping plan and develop recommendations. Appendix A
17 of the proposed plan includes the Committee's
18 recommendations for each sector focus area, overarching
19 environmental justice policy, and California climate
20 investments.

21 The Committee also sorted their recommendations
22 into 5 themes: partnership with environmental justice
23 communities, equity, coordination, economic opportunity,
24 and long-term vision.

25 --o0o--

1 AIR POLLUTION SPECIALIST JOHNSON: The
2 Committee's recommendations are intended to be read and
3 implemented holistically and not independently of each
4 other. Highlights of the Committee's recommendations
5 include encouraging long-term community engagement and a
6 culture shift in California to improve air quality and
7 environmental justice communities while maximizing the
8 benefits for all Californians.

9 The Committee recommends that public health
10 impacts and equity be considered when examining issues in
11 any sector, and CARB should develop metrics to ensure
12 actions are meeting targets as programs are implemented.

13 The Committee also recommends enhanced
14 coordination between State and federal and local agencies.

15 --o0o--

16 AIR POLLUTION SPECIALIST JOHNSON: The proposed
17 plan recommends meeting the State's 2030 goal through an
18 approach that includes all known commitments, a 20 percent
19 reduction in greenhouse gas emissions from refineries, and
20 the continuation of a Cap-and-Trade Program with declining
21 caps. The known commitments identified with asterisks
22 represent actions that will be taken due to statutory
23 requirements or other obligations.

24 The strategy includes:

25 Achieving a 50 percent renewable portfolio

1 standard and doubling energy efficiency savings by 2030
2 pursuant to Senate Bill 350;

3 Reducing methane and hydrofluorocarbons by 2030
4 through the Short-Lived Climate Pollutant Reduction
5 Strategy;

6 Increasing the stringency of 2030 targets through
7 the SB 375 Sustainable Communities Strategies, and
8 maintaining existing greenhouse gas standards for
9 light-duty and heavy-duty vehicles putting 4.2 million
10 zero emission vehicles on the roads by 2030, and
11 increasing zero emission buses and trucks through the
12 Mobile Source Strategy;

13 Increasing the stringency of the low carbon fuel
14 standard to 18 percent reduction of carbon intensity by
15 2030;

16 Improving freight system efficiency, maximizing
17 the use of renewable energy powered vehicles and
18 equipment, and deploying over 100,000 zero emission trucks
19 and equipment by 2030 through the Sustainable Freight
20 Action Plan;

21 Reducing greenhouse gas emissions by 20 percent
22 from the refinery sector and continuing the Cap-and-Trade
23 Program post-2020.

24 --o0o--

25 AIR POLLUTION SPECIALIST JOHNSON: The proposed

1 plan acknowledges the important role that natural and
2 working lands must play in reducing emissions and
3 sequestering carbon if the State is to achieve its
4 long-term goals. Unlike previous scoping plans, we are
5 highlighting the relationships between sectors. And the
6 natural and working lands sector interacts with every
7 other economic sector.

8 To this point, we must also acknowledge and
9 consider how actions in the built environment have the
10 potential to impact this sector. For example, land
11 conservation goals can keep important land-based
12 sequestration benefits, while also reducing greenfield
13 development and avoiding increase -- increases in vehicle
14 miles traveled.

15 California's goal for natural and working lands
16 is to manage them as a carbon sink, and minimize the net
17 greenhouse gas and black carbon emissions associated with
18 management, biomass utilization, and wildfire events to
19 2030 and beyond.

20 Modeling efforts are currently underway with
21 Lawrence Berkeley National Laboratory. And once the
22 carbon implications of the reference case and management
23 practices are established within the modeling framework,
24 the State and stakeholders can begin the process of more
25 accurately scoping the scale of action needed to reach the

1 quality standards, will result in air quality benefits.
2 The proposed plan protects public health, in that it will
3 result in deep greenhouse gas reductions over time, and
4 associated co-benefits and investments in disadvantaged
5 communities.

6 The plan also includes a mechanism for
7 emissions -- a mechanism to minimize emissions leakage
8 through allocation in the Cap-and-Trade Program.

9 --o0o--

10 AIR POLLUTION SPECIALIST JOHNSON: The plan would
11 continue to support a Greenhouse Gas Reduction Fund, by
12 which investments can be directed to disadvantaged
13 communities. The proposed plan ensures subnational and
14 national collaboration to achieve greater global
15 greenhouse gas reductions.

16 The plan provides compliance flexibility, so that
17 the economy can grow and support a robust workforce, while
18 still reducing emissions. The proposed plan also supports
19 the Clean Power Plan.

20 --o0o--

21 AIR POLLUTION SPECIALIST JOHNSON: In developing
22 the proposed plan, staff evaluated 4 alternatives, which
23 are presented on this slide and the next. These
24 alternatives were informed by comments from the EJAC,
25 Board, and stakeholders. The staff review of the

1 alternatives was also informed by information from other
2 jurisdictions that have designed or implemented 2 of the
3 alternatives.

4 The no cap-and-trade alternative includes direct
5 regulations on a wide variety of sectors, such as the
6 specific required reductions for all large greenhouse gas
7 sources, more renewables beyond the legislative direction
8 in SB 350, and additional reductions in carbon intensity
9 from low carbon fuels.

10 This alternative has a greater uncertainty to
11 achieve the target if measures do not perform as expected.
12 This alternative also includes items that require
13 additional statutory authority, such as new incentive
14 programs, and would not generate any funds from any
15 measures for the types of investments that are currently
16 supported by the greenhouse gas reduction fund. There
17 would also be very limited opportunities to link with
18 other jurisdictions.

19 The second alternative includes a carbon tax. It
20 is difficult to set an appropriate tax rate that would get
21 the reductions to achieve the specific target. And one of
22 the ways to address leakage would be to vary tax rates
23 across sectors, with lower rates for sectors that have
24 higher trade exposure. This alternative requires
25 statutory authority and there is greater uncertainty that

1 reductions will occur to achieve the target.

2 There is data from one jurisdiction that has
3 implemented a carbon tax that demonstrates the uncertainty
4 of achieving a specific target when relying only a carbon
5 tax.

6 --o0o--

7 AIR POLLUTION SPECIALIST JOHNSON: The all
8 cap-and-trade alternative would remove the refinery
9 measure and keep low carbon fuels at 10 percent. This
10 alternative provides less certainty about greenhouse gas
11 reductions at refineries, when refineries represent the
12 largest stationary source of greenhouse gases in the
13 largest sector of greenhouse gas emissions, the
14 transportation sector.

15 The last alternative is the cap-and-tax
16 alternative. And it would place a declining cap on
17 industry, and natural gas and fuel suppliers, and
18 electricity import -- importers, while also requiring them
19 to pay a tax on each ton of greenhouse gas emitted.

20 With both a declining cap and tax on emissions,
21 we expect this alternative to have a higher cost to the
22 economy overall. There is also uncertainty that each
23 sector must achieve reductions each year as mandated by
24 the direct caps, and some sectors will not be able to do
25 this year after year.

1 Staff examined a similar cap and decline
2 mechanism that is proposed to be implemented in Washington
3 state. During the course of the rulemaking, offsets and
4 limited trading were introduced to provide compliance
5 flexibility in recognition that some sectors cannot make
6 these year-to-year reductions at even a 1.7 percent cap
7 decline.

8 One result of not providing flexibility would be
9 leakage, diminished production, loss of jobs, and impacts
10 to the State's economy. The proposed scoping plan
11 scenario includes a suite of policies that are responsive
12 to each of the objectives of the scoping plan.

13 --o0o--

14 AIR POLLUTION SPECIALIST JOHNSON: As part of the
15 development of the proposed plan, staff conducted several
16 analyses. This slide lists the types of analyses included
17 in the plan. First, as in the discussion draft, there is
18 information about the cumulative benefits for each measure
19 and policy included in the proposed plan.

20 This plan for the first time includes a new
21 analyses required under AB 197. These include greenhouse
22 gas reductions in 2030 for each evaluated measure. So
23 that's the proposed measures and the alternatives
24 considered. Per AB 197, the plan also includes the
25 potential criteria and toxic impacts for each evaluated

1 analysis found that the recommended approach has a very
2 small impact on the State's economy, reducing the gross
3 State product by about half a percent in 2030. The
4 overall impacts of the proposed plan are small when
5 compared to the overall California economy, and the
6 proposed approach allows California's economy, employment,
7 and personal income to continue to grow.

8 Annual growth rates in GDP, employment, and
9 personal income are essentially unchanged under the
10 proposed approach, when compared to the reference or no
11 action scenario.

12 The proposed plan is estimated to have an
13 economic impact ranging from a direct cost of 7.6 billion
14 to a savings of 3.8 billion in 2030, depending on future
15 fuel prices.

16 --o0o--

17 AIR POLLUTION SPECIALIST JOHNSON: The economic
18 estimate of the proposed plan represents about half of 1
19 percent of the estimated 3.4 trillion economy in 2030,
20 which will result in a 3-month delay in reaching the GDP
21 projected under the reference or no action scenario.

22 The estimated annual cost to a California
23 household ranges from \$30 to \$214 in 2030 depending on the
24 cap-and-trade allowance price.

25 --o0o--

1 AIR POLLUTION SPECIALIST JOHNSON: We prepared a
2 draft environmental analysis in accordance with the
3 requirements of the California Environmental Quality Act,
4 or CEQA, for the proposed plan. The environmental
5 analysis identified:

6 Beneficial long-term impacts to air quality
7 energy demand and greenhouse gas emissions;

8 Less than significant impacts to air quality,
9 energy demand, land-use planning resources, mineral
10 resources, population and housing, public services and
11 recreational services;

12 And, potentially significant and unavoidable
13 adverse impacts to aesthetics, agriculture and forest
14 resources, air quality, biological resources, cultural
15 resources, geology and soils, hazards and hazardous
16 materials, hydrology and water quality, resources related
17 to land-use planning, noise, recreational services,
18 transportation traffic, and utilities and service systems.

19 The potentially significant and unavoidable
20 adverse impacts are primarily related to short-term
21 construction-related activities, which explains why some
22 resource areas have both long-term, less-than-significant
23 impacts and short-term potentially significant impacts.

24 We will respond to all comments received on the
25 draft environmental analysis and present written responses

1 to the Board for consideration along with the final
2 environmental analysis.

3 --o0o--

4 AIR POLLUTION SPECIALIST JOHNSON: The proposed
5 plan includes a section that discusses the connection
6 between climate change and public health. Measures in the
7 proposed plan that reduce greenhouse gases can
8 simultaneously improve health and social equity. The
9 discussion recognizes that focusing efforts to achieve
10 health equity, can lead to significant progress in
11 addressing human clause -- human-caused climate change and
12 discusses health impacts of climate change mitigation
13 efforts, as well as co-benefits of communication and
14 community engagement to increase the support for climate
15 change policies presented in the plan.

16 --o0o--

17 AIR POLLUTION SPECIALIST JOHNSON: Achieving
18 greenhouse gas reductions requires action at all levels.
19 Actions at the federal level, such as the Clean Power Plan
20 and methane rules, can support State efforts. And we have
21 seen how policies designed and implemented in California
22 have been the foundation for national policies.

23 California will continue to take action to
24 protect the public health and the environment through the
25 policies based on sound science. This is evident in the

1 suite of policies included in the proposed plan, and the
2 breadth of action across all State agencies, not just ARB.
3 We will look for how actions at local levels can support
4 State goals, and we will gauge in regional discussions as
5 part of the design and implementation of measures in the
6 proposed plan.

7 Further, California will forge ahead in
8 collaborations with subnational and national governments.
9 Addressing climate change requires collaborative action as
10 this is a global issue.

11 --o0o--

12 AIR POLLUTION SPECIALIST JOHNSON: The proposed
13 plan recognizes the importance of local action by
14 recommending local actions and targets that could support
15 the State's climate goals. The proposed plan includes the
16 6 metric ton per capita 2030 goal, which is consistent
17 with SB 32 and is aimed at sustainable growth.

18 The is not a mandate, but rather intended to help
19 more progressive regions, and can be tailored up or down
20 based on varying specific regional considerations. We
21 also included a local action appendix, Appendix B, with
22 examples of actions that local governments can take to
23 support the State's emission reduction targets, and could
24 be required of individual projects under CEQA, if
25 feasible. Many of these actions will allow local

1 governments to be leaders on climate action.

2 --o0o--

3 AIR POLLUTION SPECIALIST JOHNSON: Regarding next
4 steps, and the schedule going forward, we're currently
5 collecting comments on the draft environmental analysis
6 until March 6th. We will hold public workshops in
7 February and March to solicit stakeholder feedback on the
8 proposed plan.

9 In addition, we will continue supporting the EJAC
10 as they meet in February, March, and April to develop
11 final recommendations for the scoping plan, and continue
12 engagement with local communities through another round of
13 community meetings.

14 To provide an additional opportunity for Board
15 member and public comment, we will provide a report on the
16 scoping plan and public outreach at next month's hearing.

17 We are targeting the release of the final scoping
18 plan along with the formal written responses to comments
19 received on the draft environmental analysis in March.
20 The final proposed plan is scheduled to be presented to
21 the Board for consideration in April.

22 This concludes my presentation.

23 CHAIR NICHOLS: Thank you.

24 We have a number of representatives and special
25 guests of other agencies that worked with us on the

1 scoping plan. And I think the next thing that I should do
2 is to introduce some of our colleagues who are here who
3 assisted us in the preparation of this report.

4 So I was going to start with the Resources
5 Agency, Claire Jahns, who is the Assistant Secretary for
6 Climate Issues at the Natural Resources Agency, if you
7 would come up.

8 Thank you.

9 RESOURCES AGENCY ASSISTANT SECRETARY JAHNS:

10 Thank you for inviting us today. And first, I
11 just want to extend a huge thank you to the ARB staff
12 that's in front of you. They've worked with us at the
13 Resource Agency, our departments, conservancies, and
14 others tirelessly and on weekends and constructively and
15 creatively, as we figure out how to set targets for
16 managing land to store carbon in a resilient fashion.

17 And I would extend that as well to the
18 Environmental Justice Advisory Committee, which has given
19 really critical thought to this sector, which is
20 potentially somewhat a little bit outside of the norm of
21 what they're used to working with, but I think it's been
22 really important to have that external viewpoint as well.

23 And so in doing this work, we kind of quickly
24 came to realize that the old adage, what's measured is
25 managed, cuts both ways. It's difficult to develop

1 implementation targets for land protection and management
2 in the absence of a comprehensive authoritative inventory
3 of emissions or trends over time and into the future, and
4 without inclusion of this sector and the pathways modeling
5 that's used for the rest of the plan.

6 So we really came to appreciate all the hard work
7 on quantification and inventories that the ARB staff has
8 been doing to date. And so we really do appreciate the
9 time and energy of your program staff in helping us
10 develop a path forward, in the absence of this kind of
11 authority at this point, and also developing a clear kind
12 of short-term, medium-term, and long-term path towards
13 getting where we need to be.

14 So as the plan calls out, as you'll see in both
15 the recommended actions and in the description of the
16 natural and working lands sector, doing this analytical
17 work needs to be completed in the very short-term, within
18 the next year or 2, in order to better understand both the
19 potential value that land use and management can play as a
20 carbon sink, as well as the potential liability of
21 inaction.

22 And we at the Resource Agency have tried to fill
23 this gap in the interim, by, as Trish mentioned,
24 contracting with Lawrence Berkeley National Labs to
25 develop this business-as-usual and sort of with-policy

1 emission reduction scenarios out to 2050 for greenhouse
2 gas emissions, black carbon emissions, as well as carbon
3 sequestration, the latter of which we, of course, want to
4 see maintained or increase rather than decrease.

5 And the Resource Agency, the Air Resources Board,
6 and CDFA co-hosted a public workshop in mid-December to
7 debut LBNL's initial work, which is very much initial at
8 this stage, but shows a lot of promise. And we received
9 value ex -- feedback from experts in the field and from
10 the public arena at this workshop, and look forward to
11 continuing to refine the model going forward.

12 And again, as Trish mentioned, this work will
13 continue as part of development of the natural and working
14 lands climate change action plan that's identified as a
15 key recommended next step in this scoping plan, and will
16 serve as the productions used in that plan, which again
17 will help us really recommend the policy pathways at the
18 scale necessary to hit our targets.

19 And I wanted to talk a bit also about a plan
20 that's also been in development over the last year, where
21 we have come to refine the carbon accounting, as well as
22 some of the implementation pathways, and that is the
23 Forest Carbon Plan.

24 The last scoping plan update in 2014 called for
25 the Forest Climate Action Team, or FCAT, to write the

1 Forest Carbon Plan as the plan for how we'll hit those
2 emission reduction and carbon sequestration targets for
3 the forest sector. So the FCAT, which is comprised of 20
4 or more agencies, departments, external organizations,
5 including the Forest Service and the Bureau of Land
6 Management have been working to write that plan.

7 And we -- I think we bookended Friday's other
8 news well by releasing the draft scoping plan at 9:00 a.m.
9 and the Forest Carbon Plan draft at 5:00 p.m. So you have
10 your weekend reading set out for you, should you have
11 chosen to make that your task.

12 And this -- and last year -- sort of
13 process-wise, last year as the scoping plan update
14 deadline was moved up, we kind of took a hard look at the
15 process for the Forest Carbon Plan development said -- and
16 said, gosh, we really want to make sure this plan is
17 something that can be adopted into the scoping plan and is
18 ready in time.

19 And so we kind of reoriented the way that the
20 goal setting and the writing was working, which has sort
21 of been front-loading the kind of identification of
22 conditions of forest targets into goal setting.

23 You know, what is really the scale of action that
24 we need knowing that forests, frankly, are on the decline
25 in this state right now in terms of carbon sequestration

1 resilient? So we're glad to see the mention of the forest
2 carbon plan in this plan, and the -- our plan for that is
3 to have the completion of the Forest Carbon Plan track
4 with the scoping plan finalization, as well. And we have
5 a workshop coming up on that in a couple weeks, maybe in
6 this room, or somewhere else in this building.

7 As so the Air Resources Board is certainly to be
8 commended for recognizing that this sector, which is, you
9 know, essentially all of the 100 million acres in
10 California, including urban green space, will be
11 absolutely critical to ensuring that the State's, and
12 really the world's, greenhouse gas emission reduction
13 targets and policies achieve the climate change
14 mitigations they set out to to limit global warming to a
15 manageable level.

16 And the scoping plan updates continue to set the
17 bar in the United States with regards to how we think
18 about protection and management of forests, range lands,
19 agricultural lands, wetlands, urban landscapes, and other
20 systems in the context of an aggressive climate change
21 mitigation program, really a world leading one.

22 And so this sort of a new -- new ground that we
23 have to build on past actions since 2009 to really build
24 out this leadership in California. And it's important to
25 note that natural and working lands are the only sector

1 that cannot only reduce greenhouse gas emissions below
2 historical levels, as is the target for all other sectors,
3 but can also remove carbon dioxide from the atmosphere.

4 And so I'd ask you to sort of picture California,
5 not just in 2030, but all the way out to 2050, where we've
6 met the greenhouse gas emission reduction targets for the
7 energy transportation and industrial sectors that have
8 been identified in the scoping plan and attendant plans,
9 and are in the process -- and in the process have reduced
10 criteria air pollutants from fuel combustion
11 significantly, improve the health and well-being of all
12 Californians, particularly those in disadvantaged
13 communities, and are still a global leader in clean tech.

14 But as we all know, and there are probably not 12
15 people in the world who I need to tell less about the
16 science of how climate change works, but that climate
17 change is not just about reducing fossil fuel emissions,
18 it's about the balance between emissions and the capacity
19 of the planet to process those emissions, so that the
20 atmospheric concentration of greenhouse gas emissions
21 remains stable at the targeted level.

22 And now, picture yourself still out in 2050
23 looking across the Central Valley, to the Sierras, into
24 the mountains, and up to the redwood forests of the north
25 coast, and in the Delta and along our coastline. And the

1 best scientists in the world, including those as -- those
2 Lawrence Berkeley Labs have started to learn that climate
3 change is going to have a very significant impact on the
4 ability of California's land base to capture and store
5 carbon.

6 And we're already seeing this, again to reference
7 the Climate Symposium that took place this weekend, and to
8 echo, I think, Minter Murray's comments about the boreal
9 forests, which are not quite as significant a carbon sink
10 as -- which our California's sinks are not quite as
11 significant as they have in Canada, but that John Battles,
12 who's been very much involved with ARB's inventory
13 development, presented -- he's had kind of a
14 back-of-the-envelope calculation of what the true
15 mortality we're seeing in the Sierras means in terms of
16 carbon.

17 And so as you all know, I'm sure that 102 million
18 trees have died in the Sierras just within the last years
19 really as a result of climate change, increased
20 temperatures, drought, and the resulting bark beetle
21 infestation. And he found that the trees that have died
22 represent about 9 percent of the living vegetation in
23 California right now. So that's a decimation of the
24 existing carbon stock.

25 That doesn't mean that all that carbon stock

1 turns to greenhouse gas emissions. We certainly hope that
2 it doesn't, but that it is more or less, you know, almost
3 a decimation of the ability of that land, that acreage to
4 continue to sequester carbon over time into the future,
5 unless we do something about it.

6 And so we really do understand that we need to
7 not only reduce fossil fuel emissions of course, but take
8 action to improve the long-term resilience of carbon
9 stocks in and on the land base in California. And this
10 scoping plan does, as staff have worked with us know, take
11 a huge step forward in recognizing this fact. And it
12 is -- the Climate Change Scoping Plan is a greenhouse gas
13 mitigation plan, but I think we've done a good job in this
14 plan in showing how the plan can help us reduce the
15 impacts to communities, and landscapes in California in a
16 way that helps us adapt to climate change, whether you're
17 talking about improving air quality or improving the
18 health of natural systems.

19 And so it's important to remember that these
20 natural systems are also our life boat in the face of
21 climate change. All Californians, rural and urban, depend
22 on these systems for clean and sufficient drinking water,
23 and clean air, and millions of us depend on them for jobs,
24 recreation, exercise opportunities, and they are not a
25 source -- they're the sources of not a small amount of

1 State pride.

2 And as such, this scoping plan, which is again
3 focused, as it should be, on greenhouse gas emission
4 targets really does do a good job of moving us towards
5 safeguarding California, which is, of course, the name of
6 our climate adaptation plan that the Resources Agency and
7 the Governor's Office of Planning and Research are
8 leading.

9 So again, I'd just thank you for the
10 contributions of your staff and the really critical
11 thinking that everyone has put into this. And I really
12 look forward to moving forward and continuing to make
13 California a leader on this front.

14 CHAIR NICHOLS: Thank you very much, Ms. Jahns.
15 We perhaps are overusing this term a little bit, but it's
16 hard to avoid. There is an unprecedented level of
17 collaboration going on here not just between ARB and the
18 Resources Agency, or CalEPA and Resources, but all of the
19 agencies that are represented here today. People are
20 putting their best thinking into how we can all work
21 together to really represent our State in its fullness of
22 its population and its economic activity and it's
23 resources in a way that will carry us through the threats
24 that we're facing from climate change. And so it's
25 appreciated very much that there's differences in timing,

1 differences in deadlines that we all face and the mandates
2 that we all have that we're trying to -- that we're trying
3 to integrate here.

4 And, of course, the Governor's office has also
5 given us the strongest possible encouragement to do that,
6 but it's -- it is a challenge. And so the fact that you
7 and your colleagues are here today is noted and much
8 appreciated.

9 I guess I should turn next to Jenny Lester
10 Moffitt, the Deputy Secretary for Food and Agriculture.

11 Good morning.

12 CDFA DEPUTY SECRETARY LESTER MOFFITT: Morning.

13 Good morning, Chair Nichols and members of the
14 Board. Thank you for the opportunity to have us here to
15 speak with you. I want to just echo what Ms. Jahns said
16 about the continued collaboration and certainly, Chair
17 Nichols, what you just referenced as well. It is
18 certainly - we'll overuse that term - unprecedented, and I
19 appreciate it.

20 California is the largest agricultural producer
21 in the country. We rank 14th nationally or
22 internationally. And we wouldn't be able to do that
23 without our unique Mediterranean climate. And the
24 climate, we have 1 of the 5 unique Mediterranean climates
25 in the world. This allows us to produce a broad array of

1 fruits, vegetables, nuts, including over half of our
2 nation's fruits, vegetables, nuts.

3 However, as a land-based industry, agriculture is
4 also one of the most threatened by climate change.
5 Decreased water availability, increased pest pressures,
6 erratic weather, and other impacts, are already occurring
7 and are forecasted to put increased pressure on
8 California's agricultural industry in the coming decades.

9 In addition to an urgent adaptation need -- or
10 challenge, California agriculture represents a significant
11 mitigation opportunity. Agriculture contributes 8 percent
12 to California's total greenhouse gas emissions
13 representing a substantial potential to meet our State's
14 greenhouse gas reduction goals.

15 This draft scoping plan acknowledges the
16 important role that agriculture, as a working land, can
17 play in reducing emissions and sequestering carbon. As
18 with my colleagues from sister agencies, boards, and
19 defendants, the California Department of Food and
20 Agriculture has been engaged with the development of this
21 draft plan. We have joined in several of the Air
22 Resources Board's extensive public engagement through
23 workshops, through Environmental Justice Advisory
24 Committee community meetings, through discussion drafts,
25 and certainly also reviewing public comment.

1 For Agriculture, this draft scoping plan touches
2 on key -- several key State strategies for the State.
3 First and foremost, the Short-Lived Climate Pollutant
4 Reduction Strategy. This plan encompasses the reduction
5 measures per SB 1383 that Ms. Johnson referenced for 40
6 percent reduction in methane emissions from dairies.

7 These out -- draft strategies are outlined, not
8 only in the scoping plan, but also referenced a short --
9 the plan that was brought before your Board last month.
10 In addition to methane reduction, waste diversion at dairy
11 digesters have an added benefit of producing low carbon
12 renewable fuel.

13 For land use and land conservation, this strategy
14 identifies SB 375, the Sustainable Communities Strategy,
15 as an opportunity to prioritize infill and compact
16 development. It identifies the strategies, such as ag
17 land conservation easements as opportunities for con --
18 delaying conservation, and it also lays out the vibrant
19 communities and landscapes appendix.

20 Related to carbon --

21 We're good?

22 Related to carbon sequestration, Ms. Jahns spoke
23 a lot on this, so I'll keep -- I'll certainly reference
24 what she's talk -- referenced as well. But supporting
25 on-farm ranch and management practices to sequester and

1 reduce greenhouse gas's emissions is laid out in this
2 plan, and continued work to develop the integrated Natural
3 and Working Lands Action Plan that Ms. Johnson referenced,
4 and working on the modeling that Ms. Jahns referenced will
5 continue to play -- take place and is outlined in that
6 plan as far as the strategy.

7 And then finally, I'd be remiss without talking
8 about the integrated solutions. I think something that
9 has been very important in this plan is looking at not
10 what are the strategies by sector by sector, by how do we
11 integrate those strategies throughout all of our sectors,
12 all of our industries.

13 As we have dealt with significant drought in the
14 past few years, on-farm water management practices not
15 only can be a key strategy for drought resiliency, but
16 also for greenhouse gas reduction. And that is outlined
17 here in the draft scoping plan.

18 Increased on-farm renewable energy, not just
19 through the digesters that I referenced, but also through
20 solar, wind, bioenergy, geothermal are important
21 strategies to consider, not just in the agricultural
22 sector, but also in renewable energy as well.

23 And finally, agriculture can play a key role in
24 organic waste utilization, including biomass through the
25 Health Soils Initiative.

1 Again, I want to thank you for the time to speak
2 today. I would like to thank your staff and their
3 tremendous effort for not just engaging with stakeholders,
4 but with all of our agencies, boards, departments, and
5 commissions. We look forward to continued collaboration.

6 Thank you

7 CHAIR NICHOLS: Thanks so much.

8 Will hear next from Randall Winston, the
9 executive director of the Strategic Growth Council.

10 Welcome.

11 MR. WINSTON: Welcome. Good morning, Chair
12 Nichols and Board members. Thank you again for inviting
13 me here this morning. I first off want to echo, I think,
14 the comments of many of my fellow colleagues here at our
15 State agencies to thank the Air Resources Board for your
16 tremendous work and collaboration.

17 You know, our staff at the Strategic Growth
18 Council worked with ARB almost daily on certain parts of
19 the scoping plan, and the role of land use in reducing
20 vehicle miles traveled. And I'll just say that the
21 intelligence, patience, and professionalism of the staff
22 has really been exemplary, so thank you.

23 I also want to send along the appreciation and
24 thanks of the Director of the Office of Planning and
25 Research, Mr. Ken Alex, who's unable to be here today, and

1 is actually down in Los Angeles speaking about the role of
2 land use with regard to the State's climate strategy, and
3 he sends his regards as well.

4 So I'll touch upon 2 items here relatively
5 briefly, and -- with regard to the scoping plan. So
6 first, the elevated role of land use, and second, the
7 importance of our climate investments funded by cap and
8 trade, and particularly their benefit to disadvantaged
9 communities.

10 First, I laud the plan for highlighting a
11 discussion document titled, "Vibrant Communities in
12 Landscapes". This document emerged from ongoing work
13 around the State's climate strategy, and was the product
14 of 6 agencies, as well as Office of Planning and Research,
15 and outlines a vision for an integrated approach to land
16 use, and really building upon the comments that you just
17 heard from Ms. Lester Moffitt at CDFA. And this is
18 through policies and investments that link approaches
19 across transportation and the natural and working lands
20 sectors.

21 The document sets out potential actions that can
22 be taken in parallel to SB 375, including by State
23 government, metropolitan planning organizations, and local
24 governments. And as a companion to this vibrant
25 communities and landscapes document, I also want to note

1 in the scoping plan an appendix entitled potential VMT
2 reduction strategies for discussion, which further details
3 State level strategies that could be employed to achieve
4 our needed vehicle miles traveled reductions on the
5 pathway to our 2030 goals.

6 These include transportation demand measures and
7 infrastructure and infill development investments. We
8 look forward to further discussions with a broad range of
9 stakeholders to develop a more specific set of strategies
10 moving forward.

11 And second, I wanted to note the importance of
12 our climate investments funded by cap and trade, and
13 again, their benefit to disadvantaged communities. SGC
14 has 2 existing programs that are continuously appropriated
15 through the State's Greenhouse Gas Reduction Fund, and
16 that we administer with partner departments, including the
17 Department of Housing and Community Development, and the
18 Department of Conservation.

19 One focused on affordable housing and
20 transit-oriented development, which aims to reduce
21 greenhouse gases and vehicles miles traveled through
22 increased accessibility to housing, employment centers in
23 key destinations, as well as low carbon transportation
24 options, including walking, biking, and transit.

25 Then this past year, we awarded nearly \$300

1 million across the State, 85 percent of which benefited
2 disadvantaged communities.

3 And second, a program focused on conservation
4 easements, which increases -- or avoids - excuse me -
5 increases in greenhouse gas emissions associated with
6 conversions of our State's agricultural lands to urban and
7 residential development.

8 And in addition to inhibiting sprawl and further
9 growth in vehicle miles traveled, these investments help
10 maintain agricultural operation viability and create green
11 belt buffers for neighboring lands and surrounding habitat
12 values.

13 We have awarded approximately \$40 million this
14 past year for agricultural land conservation projects
15 throughout the State. And in addition to these existing
16 programs, I'd be remiss if I did not mention a new program
17 that we have this year, and that we are in the midst of
18 designing, called Transformative Climate Communities.

19 This program will offer a place-based framework
20 to accelerate greenhouse gas reduction in the most
21 disadvantaged parts of the State or the top 5 percent as
22 identified by CalEnviroScreen. We have \$140,000,000 for
23 that program this year, including \$70 million that we'll
24 invest in Fresno, \$35 million in Los Angeles, and \$35
25 million in a third location to be determined.

1 And I'll note 5 elements of this program, and
2 again, we are in the midst of designing our guidelines,
3 but we will make 3 awards that will concentrate
4 investments in these -- in these communities; and then 2,
5 through integrated projects that will reduce greenhouse
6 gas emissions, so putting into practice some of the
7 comments I mentioned earlier about integrating efforts
8 across our sectors; and then third, multi-sector
9 partnerships that can serve as models for community
10 engagement and participation; 4, modeling and really
11 showing what equitable development can look like,
12 including strong anti-displacement measures; and finally,
13 leveraging other sources of funding to bolster
14 complementary goals, including workforce training and
15 economic development.

16 Now, innovative programs like Transformative
17 Climate Communities and others would not be possible
18 without our climate investments. We recognize that this
19 isn't a large sum of money, given the size of our State.
20 But by employing best practices, and setting ambitious
21 thresholds and requirements, these investments help
22 incentivize the sort of system-wide changes at the local
23 level that are needed to achieve our climate goals.

24 So with that, thank you, and thank you again for
25 the leadership on the part of the Air Resources Board.

1 CHAIR NICHOLS: Thank you. Thanks for reminding
2 us of the role that local governments and local decision
3 makers are going to play in all of this too. We
4 constantly have to remind ourselves that the support and
5 innovation really do flow from the ground up, so to speak.
6 This is a very, very, vital part of our efforts.

7 So we'll next hear from Fran -- no, sorry. Next
8 hear from Kate White, Deputy Secretary for Environmental
9 Policy and Housing Coordination at the California State
10 Transportation Agency.

11 Good morning.

12 CSTA DEPUTY SECRETARY WHITE: Thank you, Chair
13 Nichols, Board members. Thank you for the opportunity to
14 speak today. And congratulations to the staff for
15 producing a very ambitious, but very practical plan for
16 decarbonizing our economy and setting forth a clear path
17 towards a greener, healthier, and more prosperous,
18 equitable California.

19 I have to just say I am very proud of California
20 today. I'm very proud to be here.

21 As the -- representing the transportation sector,
22 I also recognize, you know, we are responsible for about
23 37 percent of GHG emissions. We're the largest emitter.
24 And what I really appreciate about this draft plan is that
25 not only it continues with the cornerstone strategies of

1 cleaner fuels, cleaner vehicles, and trucks, those are
2 essential for cleaning up our sector.

3 I also appreciate the recognition that this
4 plan -- this draft puts forward to -- of -- that there's
5 other things -- many other things in transportation that
6 we need to be doing to -- we need to invest in reliable,
7 safe, accessible transportation options, affordable
8 transportation options, such as rail, such as transit,
9 such as walking and biking. And along with the land-use
10 strategies that my colleagues mentioned of bringing
11 destinations closer together, so maybe you don't have to
12 travel quite so far to get to your destination.

13 I also appreciate the emphasis in this plan, and
14 I know there's more forthcoming, as Chair Nichols had
15 mentioned, on analysis of the positive health outcomes of
16 this plan, not only from cleaner air, but also from again
17 active transportation. As the plan notes, increasing
18 walking and biking, in particular, reduces risks from
19 chronic disease, such as cardiovascular disease, diabetes,
20 certain cancers, and to such an extent the science shows
21 in terms of -- and the public health knowledge shows that
22 these -- these benefits of active transportation are so
23 significant that this plan not only is unprecedented in
24 all the ways that you have been talking about already this
25 morning, but also, if implemented, if approved with the

1 targets that are within regarding active transportation,
2 this plan could also rank as one of the top public health
3 accomplishments in modern history, and help reduce the
4 billions of dollars California spends each year to treat
5 chronic diseases.

6 So on behalf of the California State
7 Transportation Agency, I certainly commit my department's,
8 in particular Caltrans and High-Speed Rail, and I
9 appreciate again the deep collaboration with our agency
10 and the Department's to fully support the goals and
11 targets laid out in this draft scoping plan.

12 Thank you again.

13 CHAIR NICHOLS: Thank you.

14 Next, Fran Spivy-Weber. You know, the other mic
15 was working. By the way, you don't all have -- you don't
16 have to traipse all the way over to that podium, but okay
17 if you like it there. It's okay.

18 SWRCB MEMBER SPIVY-WEBER: Why not.

19 Thank you. Thank you very much.

20 And like everyone else, I am very pleased to be
21 here. Chair Nichols, and Board, and staff, it has been a
22 pleasure on the part of our staff at the State Water
23 Resources Control Board to work with yours on this scoping
24 plan.

25 And I want to assure you that you have challenged

1 successfully us and many other agencies to step up on this
2 issue. And it's -- that, too, has been wonderful. I'll
3 just outline 3 areas that we are focusing on at the State
4 Water Resources Control Board.

5 One is we have a resolution that will be -- is
6 scheduled now to come before the Board at the 22nd of
7 February on climate change. And this is -- this was put
8 together with our regional boards, nine of them all over
9 the State, as well as our -- all of our different offices
10 and sections of the State Water Board.

11 And each one is taking a measurable accountable
12 actions toward climate resiliency, as well greenhouse gas
13 emissions, but also sustainability.

14 Secondly, we will -- we are working now with a
15 number of different agencies, including the Resources
16 Agency, and the water -- and the various -- the Public
17 Utilities Commission, and the Energy Commission to work on
18 permanent conservation pleasures.

19 This is probably one of the greatest
20 contributions that we can make to greenhouse gas
21 reductions. And I will look forward actually to the 2015
22 segment on your chart to see if the mandatory reductions
23 that were taken in 2016 by the citizens of California, if
24 those make a measurable difference as the uptick did have
25 a measurable effect in, I think it was, 2014 -- or 2013.

1 So -- and then the final area that we will be
2 working on is working with the CPUC in their water energy
3 proceeding. It was started over the last year and a half,
4 and we will continue to work with them, because roughly 13
5 percent or so of the water use in California is overseen
6 by the CPUC. So they will be extremely important in
7 water.

8 And I just wanted to add finally that in this
9 resolution the it's divided into sections. I urge you to
10 look at it, and to make comments on it, and your staff to
11 do the -- to do the same. We will be focusing on reducing
12 greenhouse gas emissions, but we can do that in many
13 different ways.

14 And one has been in investments. We've put
15 almost a billion dollars into recycled water. And we are
16 actively working to make sure that we can account for what
17 greenhouse gas reductions are being achieved from that
18 investment. So there are -- there are many, many ways in
19 which working together has been extremely helpful to us,
20 as well as hopefully to you, and we look forward to having
21 even more of it in the future.

22 Thank you.

23 CHAIR NICHOLS: Thank you. Your comment reminds
24 me of something that a Assistant Secretary Jahns said at
25 the beginning about measurement and counting of things.

1 And you're absolutely right that we have to be looking at
2 our State's overall response to climate, and our overall
3 contribution, using a bunch of different kinds of metrics.

4 We started out with measuring and regulating
5 what's easiest to measure and regulate, but that doesn't
6 mean that that's the end of the sorry. And your
7 contribution personally at the Water Board to helping the
8 Board begin to think in new ways about these issues is
9 very much appreciated.

10 So thank you for your role as the co-chair of the
11 WET-CAT, and other opportunities that you've taken to make
12 those points. We appreciate it.

13 Okay. Next Ed Randolph, Director of the Energy
14 Division at the Public Utilities Commission, another
15 powerful regulatory agency.

16 MR. RANDOLPH: Good morning and thank you.

17 CHAIR NICHOLS: Good morning.

18 MR. RANDOLPH: First, I would like to be, what's
19 almost redundant now, but start out by thanking the ARB
20 staff for their efforts to coordinate with the other State
21 agencies in the recent month and over the last several
22 years to get to where we are today.

23 I think we all know meeting the climate goals
24 that have been set for us is going to require to use
25 another stale word now unprecedented effort of

1 coordination among the agencies. And I think in the last
2 year the relationships between our sister agencies, ARB
3 and the CEC especially, are at all times high, and we hope
4 to continue to improve on that, and appreciate all the
5 efforts of the ARB staff to help with that.

6 As the scoping plan does layout, you know,
7 already, the energy sector and the electricity sector is
8 on its way to meet, and actually beyond, the 2020
9 greenhouse gas goals. And we feel we're well on our way
10 to meet the goals that will be needed to hit the 2030
11 goals.

12 But we know there's still a lot of work to be
13 done in this sector. Not only do we need to continue to
14 make strides towards getting a carbon free grid, we need
15 to prepare the electric sector to be able to help with
16 fuel switching in almost all of the other sectors.

17 As I often put it on the electricity sector, not
18 only do we have to be carbon free, we are going to have to
19 help almost every other sector out there become carbon
20 tree as well. So it's a tough and big load for the
21 electricity sector.

22 We do believe, and as laid out in the scoping
23 plan, that a critical component of the success of the
24 electricity sector is integrated resource planning that is
25 mandated in SB 3750. If the electricity sector is going

1 to meet its greenhouse gas reduction goals at a minimal
2 cost to ratepayers, we need to move away from the bucketed
3 approach to procurement, where the utilities in the State
4 are pursuing clean energy resources based on targets that
5 are somewhat randomly set and move towards a planning
6 process we know -- a planning process where we know
7 resources augment reach other.

8 To build on other comments today, you know, we
9 get what we measure. Currently, a lot of the energy
10 sector goals we're measuring megawatt savings or megawatts
11 produced by renewables. And we aren't actually measuring
12 greenhouse gas reduction. To get to the greenhouse gas
13 reduction, integrated resource planning requires the
14 energy agencies and the electric utilities to actually be
15 measuring and go towards actual greenhouse gas reduction
16 targets.

17 An example of where integrated resource planning
18 will help make tremendous strides is areas such as the
19 coordination between renewables, electric storage, and
20 electric vehicles. The 3 of those combined can help get
21 to a carbon-free grid, but eliminate a lot of the problems
22 we would otherwise see with over-generation and
23 curtailment of renewables.

24 The goal set by the Governor, the legislature,
25 and by the scoping plan are ambitious. But I'm confident

1 with the proper planning we can meet these goals. And I'm
2 excited to be part of the team with the other State
3 agencies we work with to help meet these goals.

4 Thank you.

5 CHAIR NICHOLS: Thank you so much.

6 And last on this list of State agencies
7 represented here today, and another very active
8 participant and partner, Rob Oglesby, the Executive
9 Director the California Energy Commission.

10 CEC EXECUTIVE DIRECTOR OGLESBY: Thank you, Chair
11 Nichols, and Board members. Rob Oglesby with the Energy
12 Commission. Happy to be here today to address you on this
13 important plan, adding my voice also to acknowledge the
14 collaboration between agencies, and also the hard work and
15 very successful heavy lift that the Energy Commission
16 staff has done in producing this draft report,
17 particularly considering how many stakeholders have been
18 engaged in putting together so many disciplines and
19 subjects into one cohesive plan, and acknowledging their
20 very developed skills at herding cats.

21 (Laughter.)

22 CEC EXECUTIVE DIRECTOR OGLESBY: So Ed touched on
23 many of the points that I will also, as you might expect,
24 as the other State energy agency share, and that also
25 includes the observation that the energy sector, thanks to

1 consistent and strong leadership, is on track to achieve
2 our climate goals, and well on the correct trajectory to
3 meet 2030 as we stand. We have about 20 percent of
4 statewide greenhouse gas emissions coming from
5 electricity. About half of that is due to imported
6 electricity, which will get cleaner with time, come less
7 carbon intensive as legacy coal contracts become retired.

8 The also is important to mention it doesn't
9 include hydro. It looks like this year is going to be a
10 good hydro year.

11 (Laughter.)

12 CEC EXECUTIVE DIRECTOR OGLESBY: But our carbon
13 footprint has been increasing, and less carbon intensive
14 going forward. And we're very proud of that and look to
15 continued our role to support our overall greenhouse gas
16 goals.

17 The scoping plan chose that the electricity
18 sector will be a major contributor to the State's
19 achieving the 2030 goals through the implementation of SB
20 350, as you've noted. I'd like to echo Ed Randolph's
21 comments on the importance of the integrated resource
22 planning process, which begins to use greenhouse gas
23 emissions as the overriding metric, and provides for a
24 coordinating planning process.

25 IRPs will incorporate GHG reductions into

1 long-term resource planning process and will give
2 utilities greater flexibility to decide the best way for
3 them to reduce their greenhouse gas emissions. We're
4 working with the PUC and the ARB to implement this portion
5 of SB 350. The Energy Commission staff has been working
6 to finalize a discussion paper that will inform the
7 development of guidelines for publicly-owned utilities to
8 submit IRPs to the Energy Commission for review. And
9 we're going to be holding a joint workshop on setting
10 planning targets on February 23rd.

11 Just this past Wednesday, the Energy Commission
12 approved revision to the renewables portfolio standard
13 eligibility guide book, which will greatly facilitated
14 compliance with the RPS standards, including providing for
15 electronic submissions of the vast amount of data that
16 we're responsible in verifying progress for the renewable
17 portfolio standard.

18 The Energy Commission is also working with the
19 Public Utilities Commission to implement the energy
20 efficiency portion of SB 350. We held a joint workshop
21 just this past Monday on the 2030 efficiency targets. SB
22 350 requires the Energy Commission to establish energy
23 efficiency targets by November 1st of this year. And that
24 will be a task indeed.

25 The Energy Commission staff has also been working

1 to finalize a rulemaking package for the AB 802
2 benchmarking and disclosure program, which has a high
3 potential to derive new energy efficiency programs in
4 support of the SB 350 energy efficiency doubling targets,
5 particularly for existing buildings.

6 We're also committed to the Governor's goal to
7 cut petroleum use in half by 2030, which will be critical
8 to meeting the 2030 greenhouse gas emissions reduction
9 target. We were discussing transportation electrification
10 as an important component of the IRP process, and held a
11 workshop on this in October -- this past October.

12 We're also supporting emission reductions in
13 transportation through research and development, through
14 our EPIC Program, and infrastructure through our ARFVTP
15 program. In December, we held a vehicle grid integration
16 workshop to support transportation electrification as
17 well.

18 The goals set forth by the Governor and the
19 legislature on 350 are very ambitious, but the Energy
20 Commission is excited about implementing SB 350, and
21 participating in the scoping plan process as we go
22 forward.

23 Thanks for this opportunity.

24 CHAIR NICHOLS: Thank you so much.

25 We've taken this time, and very much appreciate

1 the time that's been given to us by senior colleagues from
2 these different agencies to really, I think, demonstrate
3 to this Board and to all those who are watching that this
4 is very much a State plan that we are adopting, that the
5 input that we've received and the ongoing efforts at
6 implementing the plan reflect diversity of agencies and
7 bureaucracies, but also a diversity of mandates that the
8 State has. And the fact that we're able to integrate our
9 climate work across all of these fields and more really is
10 a step in the direction of the kind of change in thinking
11 that is going to be needed to get the kinds of dramatic
12 results that we are planning on in our impact on the
13 global climate. So thanks to all of you very much for
14 being with us and for your ongoing help and support in
15 this effort.

16 We now wanted to turn to another group of people
17 who have been also extremely active and given a lot of
18 both time and expertise to the development of this plan,
19 and the process by which it was developed. And that's our
20 Environmental Justice Advisory Committee. And I see them
21 making their way towards the podium.

22 I understand we have 5 members of the Committee
23 here this morning. I recognize them Mary Rose Taruc,
24 Katie Valenzuela Garcia, Martha Dina Arguello, Eleanor
25 Torres, and then also Kemba Shakur are all with us.

1 So I know you've organized your presentation.

2 MS. TORRES: Good morning, Chair Nichols --

3 CHAIR NICHOLS: Good morning.

4 MS. TORRES: -- Board members and staff. I'm
5 really proud to be here standing with my fellow Committee
6 members and proud of the work that we've been able to do
7 with all of you and the staff.

8 As the newest member of the Environmental Justice
9 Advisory Committee, I've had a year to get a sense of what
10 our work is and the extraordinary opportunity to create a
11 scoping plan that brings science, policy, and
12 environmental justice principles to our Committee and our
13 work at hand.

14 When I first came, I began to familiarize myself
15 with the work. It reminded me of my days working at NASA
16 on the Viking mission to Mars.

17 (Laughter.)

18 MS. TORRES: It's true. It's like we're trying
19 to actually got a space ship on the planet, right?

20 The enormous effort it takes, the -- but bringing
21 together the brightest scientists, brightest policymakers,
22 and the public will, with the idea of this triumphant
23 being good policy, good science for protecting the
24 interest of the most vulnerable in our community.

25 So now, as I've told you, it's been about a year

1 since I've started working with my Committee. And the --
2 my return to environmental justice was preceded with great
3 frustration with working in the environmental justice when
4 I left it 16 years ago. So this Committee actually is me
5 marking coming back into the field.

6 And I've got to tell you I was really skeptical
7 about this process. Coming back into a bureaucratic
8 process and trying to advocate for those who are really
9 being the most affected by some of these policies is
10 something I was eager to do, something I'm hopeful to do.
11 But at the same time, I was realistic about my own
12 skepticism.

13 So when I joined the EJAC, I understood that the
14 task was going to be difficult. And from December 2015
15 through June 2016. I embarked on this path with you all
16 and with my Committee members to form the means to bring
17 community input from the most vulnerable communities,
18 those communities that don't generally get to be a part of
19 the dialogue and have a say.

20 We're coming -- working shoulder to shoulder with
21 Air Resources Board staff. I mean, it meant the world to
22 my community in San Bernardino County where, you know,
23 they had never really felt that they were really being
24 heard by the State or anybody else.

25 But you all came, and you all made an impression.

1 And I know you all made an impression throughout the stay,
2 but there's a lot of work to be done. And one of the
3 things that's really clear, at least for me coming at this
4 from a place of first starting out my career in NASA, and
5 later working in environmental justice -- environmental
6 justice is that all of us have an important part to play.

7 We have the environmental Justice Committee
8 here -- Advisory Committee who has a real important part
9 to play, just as important as the scientists and the
10 policymakers. And their input, the public input, really
11 can drive the success of this program, and this scoping
12 plan.

13 So I urge you to continue to listen to my fellow
14 Committee members. I really want to get the spaceship on
15 this planet.

16 (Laughter.)

17 MS. TORRES: But it's going to take everyone of
18 us and everyone of us weighing the data, weighing the
19 qualitative information. But what it boils down to, and
20 why I'm here, and why I know my Committee members are
21 here, is what it really boils down to is someone's life.
22 And people are dying out there, and we're on the ground
23 watching it.

24 So I will pass it on to my fellow members and
25 thank you.

1 CHAIR NICHOLS: Thank you.

2 MS. GARCIA: Good morning. Katie Valenzuela
3 Garcia also a member of the Environmental Justice Advisory
4 Committee. We put this timeline up here just so you
5 understand why we're tired --

6 (Laughter.)

7 MS. GARCIA: -- but also why we're still
8 committed to carrying forward the work that we started.
9 We didn't do all of this to stop halfway. And so we want
10 to reassure you that we are committed to seeing this
11 through.

12 But my colleague Mary Rose will get into more
13 specific comments around our priority recommendations that
14 we feel are still missing. But I do want to point out, as
15 we said in our letter that we sent to you earlier this
16 month, that we do feel that there's still significant data
17 that is missing from this plan.

18 In addition to the reports and analyses that are
19 here, I want to point out specifically the AB 197 analysis
20 did not include the cap-and-tax scenario. We'd really
21 like to see that included to consider that a full
22 analysis. But in addition to these reports, we're also
23 missing details around the SB 375 goals, which we feel are
24 pretty important to us being able to say that we're going
25 to meet the targets that we're setting forward.

1 And we're missing any mention of the California
2 Environmental Justice Alliance report findings that were
3 released in September, which while I know there's still
4 debate around those findings, we feel are important to
5 address head on, rather than after the fact.

6 Exactly -- almost exactly 1 year ago today, I
7 stood before you asking for more time. And I know that
8 you've been very generous in giving us more time. But
9 little did we know at that time how long it would take for
10 us to get a full draft of this plan. And given the data
11 that's still missing, that's where we're -- some of our
12 concern is today that we're going to be talking more
13 about.

14 I also want to talk a little bit about the
15 modeling that's been done. I know you all know this, but
16 the modeling doesn't include cap-and-trade or any other
17 market mechanism. That's not something that the model can
18 could. So our assumption that cap and trade will get us
19 to the target is inherently a policy assumption. We were
20 assuming that we can continue to design a program that
21 will result in the emissions decreases at these sites that
22 we have not seen within the State of California.

23 So again, I want to reiterate that we still are
24 skeptical about these assumptions and we still feel that
25 more analysis is -- needs to be done, particularly on

1 scenario 4, in which there was some narrative, but there
2 wasn't a lot of substantive analysis that we see in the
3 cap-and-trade section. We'd like to give that more of a
4 fair shot in the discussion here today.

5 Further to reiterate again, that there might be
6 significant changes that need to be made. When you look
7 at that March -- our timeline side before, I know staff
8 says the final plan will be to you in March. That's
9 actually before we're going to be able to finish doing
10 additional community outreach and giving you formal
11 comments.

12 So staff is going to be working on the final full
13 version of the plan, while we're still trying to conduct
14 outreach, outreach that was done last year before 8197 was
15 passed, before SB 32 was passed, and before any full
16 analysis was released from CARB. So we do feel it's very
17 important that we send staff a clear signal today that
18 they can take additional time past April, if that's deemed
19 necessary by the Board.

20 --o0o--

21 (Thereupon an overhead presentation was
22 Presented as follows.)

23 MS. GARCIA: To preface the comments that my
24 colleagues will give, I wanted to circle back to our
25 overarching themes in our comments that we submitted to

1 you in August and that we will continue to submit to you
2 throughout the course of the next few months.

3 First, around partnerships, we understand that
4 there is a capacity challenge at the State level to really
5 tracking the implementation of these efforts on the
6 ground. We do want to see stronger partnerships made for
7 communities in these areas to not only track
8 implementation with strong metrics, but also to inform the
9 way these implementation protocols are rolled out, because
10 every jurisdiction is very different, and we want to make
11 sure that flexibility is allowed.

12 Second around equity, there's been a lot of talk
13 about our goal task to reduce climate change, but there is
14 also an imperative to actually improving the health in our
15 local communities. We do think that that's something that
16 we haven't done as much of and something that we've heard
17 consistently across our meetings across the State, is so
18 you tell me this law has been in place for 10 years, and I
19 am not seeing that in my community. There is much more
20 that we need to do.

21 So our recommendations are focused, while keeping
22 the global perspective in mind, on actually improving what
23 these local communities see as urgently and as quickly as
24 we possibly can.

25 Third, around coordination, we believe that the

1 mandate given to CARB necessarily implies that you also
2 have a mandate to work in collaboration with other State
3 agencies and with local jurisdictions, as was discussed
4 earlier. So we're very troubled by some of the things
5 that have been outlined in the local action section.

6 Specifically, there's a line that's buried in
7 page 137 of the scoping plan around a local offset
8 protocol that would be created with CAPCOA that would
9 allow for new developments that exceed their GHG emissions
10 to essentially buy carbon credits from other things that
11 are happening around the states, so that they can proceed
12 with developments that we know will increase VMT.

13 That is counterproductive to the goals of the
14 scoping plan, and is one of many things that we feel is
15 critical to address in this plan, if we're actually going
16 to see the emissions reductions that were striving for.

17 And finally, long-term vision. Something that
18 we've been talking a lot with partners across the State is
19 the need to look at what that 2050 vision looks like.
20 Our modeling can't do that, because modeling is based on
21 data of things that have happened in this State. So
22 obviously, we can't really model what it looks like to
23 have an economy that doesn't rely on fossil fuel, what it
24 looks like to have the type of green shift that we're
25 hopping to see, but -- and there has been no real

1 consensus on what we're hoping to 2050 looks like.

2 And we don't see that in this plan still. I
3 mean, we think that establishing that 2050 vision is
4 really important, if we're going to be able to back-step
5 and create meaningful interventions now that help us
6 achieve those long-term goals. This can't be tweaking
7 around the edges. As the Chair said earlier, we need to
8 amplify what we've been doing, and accelerate what we
9 think we're already doing to even greater degrees than has
10 ever been done, and that requires a really strong vision
11 that we're still missing in this plan and we'd like to
12 work with you on creating over the next few months.

13 So with that, I'll turn it over to my colleague
14 Mary Rose.

15 MS. TARUC: Hello. I'm going to attempt to
16 summarize the EJAC recommendations in a few slides.

17 --o0o--

18 MS. TARUC: And this is over dozens of meetings
19 and thousands of people who have participated in the
20 process and are from the most climate-vulnerable
21 communities across the State, with experiences with what
22 is causing climate change, as well as their hopes for what
23 a climate plan can do for our most disadvantaged
24 communities.

25 These recommendations are -- that I'm

1 highlighting today were identified as priority
2 recommendations to still review from the draft that we
3 saw, which was a December draft, because our EJAC meeting
4 2 weeks ago, the staff had not shown us the full draft of
5 the scoping plan. So these were identified as priority
6 recommendations for review.

7 And so we'll start with overarching. So our
8 overarching recommendations, we want to be able to see a
9 demonstration of neighborhood-level solutions. Again,
10 what Eleanor was also emphasizing is that our communities
11 want to see how these climate programs work. And for an
12 emphasis on demonstrating those neighborhood levels
13 solutions, instead of just policy and writing, it is
14 important for us to really make this plan and
15 implementation successful.

16 There are -- we want to see environmental justice
17 equity analysis on the scoping plan in each of the
18 sectors. Each time, including in the CEQA, we want to see
19 an environmental justice analysis section. And right now,
20 it doesn't have that. When staff go over the scenarios,
21 there's not quite an environmental justice analysis. So
22 we want to see that.

23 We want to see real metrics and data to ensure
24 that actions are meeting our targets. We want to maximize
25 job and economic benefits for Californians, including a

1 just transition fund for workers and communities, because
2 we know that this transition and greenhouse gas reduction
3 is going to create big changes in our economy and our
4 communities. And we want to be able to experience also
5 the benefits of that. And for those who will be out of
6 work, we want to see a plan for those workers as they
7 transition.

8 In the long term, we need to see fossil fuels
9 stay in the ground. We are still seeing in the scoping
10 plan, and different details, that there is -- there's
11 still liken enhanced oil recovery and -- in a -- in one
12 part or what -- it's like what -- we have a carbon budget,
13 and we need to leave fossil fuels in the ground, and we
14 need to reduce the fossil fuel use of our State.

15 We also want to ensure that the largest
16 proportion of greenhouse gas reductions are in EJ
17 communities, because that's where the facilities are, and
18 we want to see the largest proportion of investments in
19 our communities.

20 --o0o--

21 MS. TARUC: Under industry -- and each of
22 these -- I think the next sectors, I want to describe to
23 you what we are experiencing on the ground.

24 So with industry, we see industrial pollution
25 from stationary sources. So we have oil wells in our

1 communities, gas fields, oil refineries, power plants,
2 manufacturing plants, shipyards. You see this -- this
3 forest of smoke stacks in our communities. And the
4 transportation of goods also emit toxic air pollution and
5 greenhouse gases. And California, because of that, has
6 had 6 out of the top 10 most air polluted cities last year
7 through studies, and mostly because of the burning of
8 these fossil fuels that cause climate change in
9 transportation and industrial sectors.

10 And so the key EJAC recommendations here -- and I
11 want to preface the -- so we see that the staff is
12 recommending the cap-and-trade scenario to the Board
13 already. And we think that's actually premature, because
14 we have not seen staff address the environmental justice
15 issues and problems that the -- the report -- the equity
16 assessment report on cap and trade has pointed out from
17 the California State University professors that have put
18 out that report.

19 We also have not seen the data of -- of the
20 impacts on environmental justice communities from cap and
21 trade. And so it is again premature to recommend that cap
22 and trade is the best way when we have not seen how the
23 ARB and the staff and these programs are going to address
24 those negative impacts that we are experiencing now.

25 And so with that, specifically the EJAC

1 recommendations, we want to prior -- see the priority of
2 emissions reductions in our communities, ensure that no
3 emission increases happened there. So again, the
4 localized increases in pollution, as the Cushing report
5 has already pointed out, and what we want to hear and
6 evaluate it from the OEHHA report need to be addressed,
7 and that we need to see these reductions in EJ
8 communities.

9 We want to see an aggressive reduction of
10 emissions from the oil and gas sector. We want to see a
11 50 percent reduction by 2030. We want to ensure that the
12 adaptive management tool that's supposed to protect our
13 communities is adequate for real-time monitoring and
14 intervention. We want workers and community members who
15 live in these polluted areas to have access to economic
16 stability and a just transition to the new clean economy.

17 We want to eliminate offsets. We want these
18 reduction measures in California first before you export
19 this program somewhere else. As we're seeing already from
20 the Cushing report that over 80 percent of offsets are out
21 of State and not happening in California.

22 We want to see agencies stop passing the buck.
23 And we want you all to fix the problem, so that the
24 coordination efforts are truly important among agencies.
25 And we want to create a thorough -- we want to see you

1 create a thorough air quality monitoring system for both
2 GHG criteria and toxic pollutants. So that was just
3 industry.

4 (Laughter.)

5 --o0o--

6 MS. TARUC: For energy and green building, so
7 we -- we're doing a lot of work, and we're providing a lot
8 of this insight and our best ideas for you all as well.

9 So around energy, green buildings, and water,
10 what we see as a problem on the ground, and what we're
11 experiencing, is that fossil fuels, crude oil, natural
12 gas, some coal currently supplying most of our electrical
13 energy needs, and are harmful to the health of fence-line
14 communities, and our climate.

15 And many of these power plants are located in EJ
16 communities. And so the EJAC recommendations that I want
17 to highlight for you -- that we want to highlight for you
18 today are that we want to prioritize the siting of the
19 good clean renewable energy projects, grid storage,
20 micro-grids, community choice aggregation projects within
21 EJ communities.

22 We want to see you avoid and mitigate any
23 increase in emissions from energy operations. We want to
24 see carbon capture and sequestration for enhanced oil
25 recovery not be certified for carbon credits. Because

1 again, that whole leaving fossil fuels in the ground
2 should be primary.

3 We want to see climate and energy investments
4 serve entire disadvantaged communities and not just
5 individual buildings or homes. We want to see you
6 identify and implement and standardize metrics to track
7 energy -- to track energy projects and economic
8 co-benefits, and that our -- for CARB to work with other
9 agencies to measure those.

10 We want to see promotion of the development of
11 community-driven clean energy projects that hire from our
12 communities, prioritize community ownership, maximize cost
13 savings, and prioritize anti-displacement strategies.

14 We want to protect low-income households from
15 energy spikes. I think why we have been looking into the
16 revenues from a carbon tax or a cap and tax is that we
17 want to see funds also be used to protect consumers from
18 when energy prices rise, because we know that even with
19 the social cost of carbon, the cost of carbon at \$12 a ton
20 right now is not capturing what it really costs. And when
21 they raise the prices, we want to be able to use funds to
22 protect households and consumers from those energy spikes.

23 --o0o--

24 MS. TARUC: Under transportation, what we see in
25 our communities and the problems are that mobile sources

1 of pollution from cars, trucks, buses, rail, et cetera,
2 are the biggest sources of pollution in California.
3 People living next to freeways and ports, especially
4 communities of color, are more likely to have increased
5 exposure and health risks, including heart and lung
6 problems, asthma, and increased death rates.

7 Key EJAC recommendations in this sector. We want
8 to see an expansion of clean transportation options and
9 access for disadvantaged communities through public
10 transit, electric vehicles, including cars and trucks, and
11 community-friendly land use.

12 We want to see through a robust community
13 participation the ground-truthing of the actual impacts of
14 program, planning, and implementation, and to conduct
15 equity analysis on these.

16 SB 375 and the Sustainable Communities Strategy
17 must be improved and strengthened. We want to see a
18 dedication of funds towards helping less resourced
19 communities as well as small businesses take advantage of
20 clean transportation investment opportunities through
21 technical assistance, ME&O, and outreach efforts.

22 --o0o--

23 MS. TARUC: Under natural working lands,
24 agriculture, and waste, what we experience on the ground
25 is that industrial agriculture, where large dairies, oil

1 fields, and waste dumps are mostly sited where our
2 families live. And especially in rural, environmental
3 justice communities that cause multiple problems for us.

4 Key EJAC recommendations around this that were --
5 we want reviewed are:

6 We want to see a building of biomass and not
7 burning it. We want to restrict waste-to-energy projects,
8 because we know those new facilities -- where are you
9 going to put those new facilities? Are you going to
10 burden us more with these supposedly cleaner projects?

11 We want to see a critical element to land and
12 waste management, that that is -- that critical element is
13 actually soil regeneration through healthy soils and the
14 Healthy Soils Program, and must include urban and
15 community gardens with composting strategies.

16 We want to see you quantify potential local jobs
17 created from regenerating forests, both urban and rural.
18 And we want to see implementation of public outreach and
19 education with the co-benefits of urban agroforestry,
20 urban greening to create livable healthy communities.

21 --o0o--

22 MS. TARUC: And lastly on the investments, what
23 we've seen in our communities is historic economic
24 disinvestment coupled with multiple pollution sources that
25 have created huge burdens for low income communities and

1 communities of color.

2 Key recommendations here that we still want
3 reviewed are we want an expansion of investment sources
4 for environmental justice communities beyond -- with the
5 greenhouse gas reduction funds and beyond. That
6 greenhouse gas reduction fund projects must be
7 transformative for disadvantaged communities in ways that
8 they define themselves, and must never result in
9 displacement, because that is not a benefit.

10 And we want to see funds gathered, through
11 polluter fees, and be used for educational programs.
12 Again, this is part of us being able to deliver, and
13 invite, and excite community members across the State and
14 around our climate programs. We want to see these
15 educational programs for affected communities that include
16 innovation and environmental literacy.

17 And for our last slides, I will turn to Martha
18 Arguello.

19 --o0o--

20 MS. ARGUELLO: Thank you to -- I want to thank
21 the amazing team from EJAC, but also the Board and the
22 staff who has supported the EJAC Committee. I want to
23 talk again, because I'm a public health person, about
24 these concepts of early warning systems. And what we're
25 expecting in terms of the adaptive management plan, how we

1 should be -- how we hope staff will look at the report
2 that looked at what's happening with cap and trade. And
3 that we take these early warning seriously, and sort of
4 not see them as threats to the program, but ways that we
5 can actually make the program work and keep its promise to
6 not make things worse in environmental justice
7 communities.

8 So we have to include toxic air contaminants as
9 soon as possible. ARB should increase its collaboration
10 and communication with the local air districts, and really
11 begin to get that data, so that we don't have these large
12 data gaps.

13 And then the adaptive management plan
14 should -- should specifically -- specify potential
15 Cap-and-Trade Program evaluations that go beyond emissions
16 increases, because we need these systems to be able to
17 act.

18 And lastly, I, you know, really want to talk
19 about the importance of continuing -- I can't to do 2
20 things at once. Luckily, I'm not chewing gum too.

21 --o0o--

22 MS. ARGUELLO: So I want to continue the good
23 public outreach that has happened with the plan. I can't
24 tell you how important those community outreach events
25 were. Several of the communities that went to the Los

1 Angeles one are now working on the Transformative
2 Communities Plan.

3 And so I want to invite you again to look at the
4 way we do public participation, and do it deeper, so that
5 we actually have a collaboration, so that we can work with
6 you around some of the tough -- the tough things, right,
7 gentrification and displacement, really difficult. Our
8 communities struggle with this. There isn't a place I go
9 in our -- work in our communities, where this fear of
10 displacement and gentrification does not get voiced.

11 And so -- and I spent a lot of time directly with
12 impacted communities. So figuring this out is going to be
13 important. I'm really glad that all the agencies were
14 here. We hope that, at some point, we all sit down with
15 EJAC to really figure out how to do these better.

16 The next thing is that we need a complete and
17 full analysis of AB 197. We have, again, been a
18 consistent voice on the need for direct emissions
19 reductions. And the way to defend and protect and make
20 sure that this program works is to show that people that
21 live on the ground, that live fence-line to these
22 facilities, that we're serious about climate change.

23 And that means that we're going to seriously --
24 we're going to be serious about reducing emissions at the
25 sources, whether those are the oil drills that we're

1 working on or the refineries. If people do not breathe
2 better soon, the program will fail, because you have --
3 you won't have people to support it.

4 We will only say we've worked on this for 10
5 years and things are not getting better where we breathe,
6 right? So those are direct -- we have to really make sure
7 that those direct emissions reductions are focused, and
8 visible, and breathable.

9 We want to incorporate the findings of the OEHHA
10 report on AB 32 as quickly as possible. And we want to
11 continue with the idea of having a flexible date for the
12 final vote, because this information is so important. And
13 again, I want to thank you. I also want to encourage that
14 when -- that we continue the Environmental Justice
15 Advisory Committee, because we think we have a lot to
16 offer, and these partnerships have been really important
17 to our communities in terms of having a voice and being
18 able to shape policy.

19 Thank you.

20 CHAIR NICHOLS: Before you guys leave, hang on
21 just a second, I think this is a time when Board members
22 may want to engage a little bit with you with some
23 questions. So before we move on to the next element, I
24 just think there's -- you know, you're a big group, but
25 you covered a lot of territory. So I know Supervisor

1 Serna wanted to ask you a question.

2 BOARD MEMBER SERNA: Great. Thank you, Chair.
3 And let me start by expressing my gratitude for all the
4 hard work on -- that the EJAC has applied in the months
5 leading up to today. And certainly in the months going
6 forward, there's going to be -- there's going to continue
7 to be a lot of effort I know that's applied and scrutiny
8 that's applied to this process.

9 You've given us a lot to consider both in
10 writing. I have read the detailed letter and appreciate
11 the coordinated approach that you've used today to really
12 outline where your concerns lie, and where you think
13 there's improvement to be had.

14 I had some -- a particular pointed question that
15 I'd like to ask Katie. And in the interests of full
16 disclosure, Katie and I wear different hats and work
17 together in a different capacity. She is a neighborhood
18 activist here in Sacramento in the district that I
19 represent as a county supervisor. So our paths cross
20 quite often. And so that's the nature of my question.

21 You -- there was mention of neighborhood level
22 solutions that EJAC is very interested in exploring what
23 that should look like. Now, as you know, CalEnviroScreen
24 gives us -- CalEnviroScreen 3.0, I guess at this point,
25 gives us a particular level of geography across the State

1 to really try and work within a manageable geography. And
2 that's based at the census tract level, as you know.

3 So I'm kind of curious to understand, especially
4 since you and I, Katie, work on neighborhood issues quite
5 often, social equity, and environmental issues quite often
6 together, what is it that you think specifically - give me
7 an example if you could or a couple - about how a
8 neighborhood -- what a neighborhood solution might look
9 like at the level of South Oak Park?

10 MS. GARCIA: Thank you for that very specific
11 question.

12 (Laughter.)

13 MS. GARCIA: I also sit on the board for the
14 South Oak Park Community Association, which is the
15 community that's partially incorporated and unincorporated
16 in the south part of Sacramento.

17 I think one specific solution is around
18 transportation, right? Like we'd like to see -- we have
19 built out roads in our communities. We're not planning --
20 talking about planning for new communities. It's how does
21 planning address existing communities that have built
22 along highly racialized land-use policies that excluded
23 people of color for more affluent and more healthy parts
24 of our communities.

25 So in South Oak Park, you see a part of a

1 community that's been built out with high capacity roads
2 very close by, with high capacity freeways very close by.
3 I think people in that community are very interested in
4 how to make those roads more accessible for alternative
5 uses, how to decrease road traffic on those, how to
6 decrease the toxics that come out of the tailpipes of the
7 road traffic that will inevitably come anyways.

8 So that's one specific solution in South Oak
9 Park, because there is no real job or food opportunities
10 within that community. While we continue to build that,
11 how do we get people in and out of that community so they
12 can access those opportunities is one particular example.

13 BOARD MEMBER SERNA: Okay. That's good. I'm
14 glad to hear that. I would assume that the corollary to
15 that too, in a more proactive sense, would be to expand
16 public transit for instance.

17 MS. GARCIA: Um-hmm.

18 BOARD MEMBER SERNA: So that is something that
19 I -- you know, and there are other local government
20 representatives obviously that serve on this Board. I
21 think it would be very helpful to, in the future, give us
22 those examples. I mean, I know you're not going to scour
23 every single neighborhood in the State of California.
24 You're going to probably get close to it.

25 But I think understanding kind of the practical

1 solutions, the way the EJAC sees them would be -- at least
2 for me, would be very helpful to understand that the
3 closer we get to a final adoption of this plan, and how we
4 think both with our State hats and our local hats on how
5 that can be implemented.

6 MS. GARCIA: I'm glad you brought that up,
7 because one of our requests was actually in these
8 workshops we've had detailed notes taken of what
9 communities have said. One of our specific requests was
10 to have those full notes included as an appendix, so you
11 and other people across the State could see specifically
12 what folks said in San Diego, what folks said in
13 Bakersfield, and Modesto that was specific to that
14 context.

15 That hasn't been included in the scoping plan to
16 date, but something we'd like to see and that we're going
17 to continue adding to as we do additional workshops.

18 BOARD MEMBER SERNA: Great. Thank you very much.

19 CHAIR NICHOLS: Yes. Ms. Miller.

20 BOARD MEMBER MITCHELL: So one of the things that
21 you mentioned is that you think the Sustainable
22 Communities Strategy could be improved. And I'd like to
23 hear a little bit more about that - I know that in my area
24 is Southern California Association of Governments - which
25 pretty much determines the Sustainable Communities

1 Strategy. And I think one of the keys would be
2 involvement of your organization in those planning
3 efforts.

4 But maybe you could elaborate on how you
5 could -- how you'd like to see it improved and how we
6 could work together to get there.

7 MS. GARCIA: Thank you. Many of us actually are
8 involved in that SCS processes in our local jurisdictions.
9 I think one specific way it could be improved is by
10 setting stronger targets. ARB generally defers to MPOs
11 for what the targets should be. Those MPOs are governed
12 by local government officials who have different conflicts
13 and things they need to consider in their own
14 jurisdictions.

15 I think having ARB set a stronger regional target
16 that had some sort of sub-target, right? Like you can get
17 there and expand the Cap City Freeway in Sacramento,
18 right? Like, that's counterproductive to what we're
19 trying to incentivize.

20 So if there were VMT goals, if there were, you
21 know, alternative mode shift goals towards biking, and
22 carpooling, and walking to work or taking transit. Those
23 submetrics that ARB has authority to apply when they're
24 analyzing the methodology that MPOs use, not only to
25 create the plan, but to justify how they're meeting the

1 targets to date, gives ARB the tools to work with those
2 jurisdictions to create more ambitious general plans and
3 implement more ambitious SCSs.

4 BOARD MEMBER MITCHELL: Okay. Thank you.

5 CHAIR NICHOLS: Thank you, Ms. Mitchell.

6 Yes, Mr. Gioia.

7 BOARD MEMBER GIOIA: First, thanks, everyone, for
8 all of your thoughtful work over a long period of time.
9 And I just want to highlight on one point. You raised an
10 issue that I know I've raised before in some previous
11 meetings about the importance of understanding health
12 impacts, cost and benefits, and incorporating that in a
13 more robust way.

14 I really believe that we should, going forward,
15 strengthen our economic analysis to include the benefit --
16 health and benefit -- health cost and health benefits.
17 And there's a specific acknowledgement in the appendix
18 that the economic analysis does not really include a
19 health element. And you do make reference in the scoping
20 plan itself to some health studies that are being done by
21 academic institutions.

22 I think that's good and that's important. But
23 we, as an agency, I think need to take leadership to
24 incorporate and quantify, right, the health benefits for
25 moving toward a cleaner economy, and better air quality,

1 as well as the costs associated with current fuel, and to
2 incorporate that into the economic analysis. I mean,
3 because traditionally economic analysis have been purely
4 based on economic activity, economic output.

5 Environmental economists understand that you can
6 quantify health costs and health benefits, and that we
7 need to incorporate that into the economic analysis, not
8 just often a separate chapter. I think when we -- having
9 a separate chapter about health impacts is important.
10 It's good, but we have to start incorporating it in some
11 quantifiable way into an economic analysis.

12 So I'd like to see us do that in the next draft
13 of our economic analysis. And so I'd like to hear about
14 how we can do that. And I appreciate you highlighted that
15 issue as well, and not just continually separate, and say,
16 oh, we have economic issues over here and health issues
17 over here. Well, health issues affect sort of economic
18 activity and can be quantified.

19 Can we have a commitment that we can do that?

20 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

21 SAHOTA: Supervisor Gioia, I can take that question.

22 These kinds of analyses have mostly been retrospective,
23 and we're not aware of some prospective studies that can
24 be done here, but we have some ideas at the staff level
25 about how we can take some of the forecasting information

1 that we got --

2 BOARD MEMBER GIOIA: Right.

3 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

4 SAHOTA: -- through the modeling. It's only on GHGs but
5 we can make some assumptions about how that impacts our
6 criteria on toxic pollutants. Recognizing that there's
7 always uncertainty in any of these forecasts, we can try
8 and translate that into health impacts that are avoided by
9 taking action, and how that translates --

10 BOARD MEMBER GIOIA: Right.

11 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

12 SAHOTA: -- into the economics. So we're going to try and
13 go back and see if we can pull this back together and use
14 that.

15 BOARD MEMBER GIOIA: And even if you can quantify
16 a range. It's -- obviously, it's hard to come up with
17 real specific values, but to quantify range. And I know
18 you indicate that, for example, there's the UCLA research
19 to estimate improvements in health outcomes associated
20 with AB 32. But all of these are like separate reports,
21 and that -- again, that's goods. But how do we take the
22 information from those separate reports and, you know,
23 work to quantify them within the economic analysis?

24 You know, the local air districts do that, to
25 some extent, when we develop new rules. And I realize

1 that when new rules are developed coming out of this plan,
2 there will be further economic analysis and further health
3 impact discussions. But it would be nice to have that in
4 the scoping plan for the broader strategies.

5 It can't be as -- you know, maybe as exact. It
6 can be more of a range. But that's what we also do when
7 we're looking at rule development, and quantify, you know,
8 savings to the health care system, and similar kinds of
9 factors.

10 So do I hear we're going to be able to do that?

11 INDUSTRIAL STRATEGIES ASSISTANT DIVISION CHIEF

12 SAHOTA: We're going to try and do that. And the nice
13 thing about this scoping plan is that it builds on plans
14 like the Mobile Source Strategy, where we actually have
15 some specific analyses that are more focused than what we
16 would do in a scoping plan on mobile source measures.

17 And so looking at these plans, we're going to try
18 and figure out if we can tease out the air quality
19 benefits that are forecasted in those plans, and pull
20 those together in a concept of the scoping plan, where you
21 pull all the plans together, and look at what that range
22 of benefits is in 2030.

23 So we are committing to trying to do that and
24 trying to do our best. And we'll probably have to caveat
25 it with the uncertainty, the ranges, et cetera.

1 BOARD MEMBER GIOIA: Right. The other thing that
2 you identified, and I'd like to hear you talk more about
3 it, is the Just Transition Fund, because, I mean, I think
4 all too often, you know, we think of benefits to
5 communities. And I live in Richmond. I represent
6 Richmond. And many -- and there are neighborhoods in the
7 community I represent that are disadvantaged, right? Go
8 Richmond.

9 (Laughter.)

10 BOARD MEMBER GIOIA: And so we see, right, all
11 too often projects that can be beneficial for a community,
12 whether it's a clean energy project, but we don't often
13 see associated with it the investment in people to be able
14 to participate and be part of the benefit of those
15 projects, whether it's a -- so I'm really relating here a
16 lot from residents about, right, the need for training to
17 be able to have this just transition.

18 So -- you know, so it's not just a bricks and
19 mortars project that is being funded, but it's a people
20 project. So talk a bit about some of your ideas on that.

21 MS. ARGUELLO: Well, I mean, I think it's a
22 people project -- it's people projects. In the toxics
23 world, we often talk about sort of one of the problems is
24 that we have an innovation gap, and a safety gap. And I
25 think that's applicable here when you're talking about a

1 just transition, right? So a clean energy project may be
2 good --

3 BOARD MEMBER GIOIA: Right.

4 MS. ARGUELLO: -- but it still has -- it will
5 still -- it's -- you know, it may still have lots of
6 impact. So I think the funding is really --

7 BOARD MEMBER GIOIA: Or the folks in the
8 community aren't getting the training to be able to take
9 the job that may -- you know, the skills required for it.

10 MS. ARGUELLO: Until you have -- right. So the
11 idea of community partnerships to establish, well, what
12 does this community need? It may not need an energy
13 producer. It may need a day care facility. It may need
14 something else. And I think figuring out how to support
15 that kind of economic development is one part, so that we
16 have a growing economy that isn't based on fossil fuel or
17 consumer products. And then you should talk about the...

18 MS. TARUC: Sure, just to add to Martha's
19 comment. So we had labor unions participate in the
20 community workshops as well. And we want to be able to
21 have this coordination and aligned thinking with workers
22 either in these facilities or workers who are in low-wage
23 jobs in our communities, and what about them in the
24 economic opportunity and the new economic engine under
25 this 2030 scoping plan.

1 And so we thought that a Just Transition's
2 framework and a fund would actually help us continue that
3 dialogue with workers and community members. And also one
4 of the things around the greenhouse gas reduction fund is
5 it's primarily for mitigation. And so when we have all of
6 these green jobs, ideas for how to use climate
7 investments, the greenhouse gas reduction funds won't
8 allow us to do that.

9 And so what is it that we need to also establish
10 on top of these mitigation funds for workers that we -- so
11 again, the revenue, whether it's from a carbon tax, a cap
12 and trade, or other carbon fees that we can also use that
13 for workers and communities for a just transition.

14 BOARD MEMBER GIOIA: Thank you. Yeah, I'd love
15 to see how we could -- I understand why the legislature
16 identifies the categories for the funding cap and -- you
17 know, the revenue from cap and trade, that we can
18 incorporate into the scoping plan the importance and the
19 need for something that goes beyond just bricks and
20 mortars projects, but that is more of a sort of a people
21 just transition fund, and establishing the nexus and why
22 that's important, and establish the foundation for that in
23 the scoping plan, which would help with the legislature
24 creating that category.

25 Thanks.

1 Thank you.

2 CHAIR NICHOLS: Ms. Takvorian. Oh, sorry, were
3 you planning to respond?

4 No. Okay. Go ahead.

5 BOARD MEMBER TAKVORIAN: Did I interrupt you,
6 someone?

7 No. Okay.

8 So thank you. I just wanted to follow up on a
9 couple of things. I mean, one was the public health
10 analysis. I had the opportunity to meet with Dr. Linda
11 Rudolph who's now with the Public Health Institute and who
12 was previously with the California Department of Health,
13 and who helped to do a previous analysis in the AB 32
14 scoping plan. She offered to help with, not doing the
15 analysis, but connecting staff to folks who could do the
16 analysis in a timely way. I think it corresponds with
17 what you've asked for, Supervisor Gioia.

18 And the other thing I wanted to follow up on,
19 because Ms. Mitchell also asked about this, was the SB 375
20 and VMT reduction. I -- and I'm glad the agencies are
21 still here. I have to say that for me this is one of the
22 areas where I'm pretty confused. It's -- there's a clear
23 consensus in the report. There seems to be a clear
24 consensus from the agencies. There's a long section on
25 it, from the EJAC. And yet, there are really no specific

1 targets provided in the plan. And at nearly 40 percent of
2 the GHG emissions, I have trouble understanding how we get
3 to a complete scoping plan without actually identifying
4 what the targets are for the regions through the MPOs. So
5 that -- I would love your thoughts on that anyone from
6 EJAC, as well as staff responsiveness.

7 The best I can see for transit mode share is
8 between 10 and 50 percent. That seems a little too broad
9 from my perspective. I think we've got to drill down,
10 given that we have much more specific metrics in other
11 areas. So I wonder if you can share your thoughts on
12 that.

13 MS. GARCIA: Yeah, I think in addition to not
14 having the targets, which I do find troubling, you don't
15 have within the scoping plan there's this whole like land
16 use, conservation metric that staff refers to and says the
17 they're working on developing.

18 So it doesn't look like across the board that
19 we've really quantified the impact of making smarter
20 land-use decisions, and incentivizing smarter
21 transportation investments in our scoping plan. And as
22 I -- as we speak, I mean, I was just hearing Caltrans 2
23 nights ago talking about expanding the Capital City
24 Freeway here in Sacramento significantly.

25 And it says, okay, so how does this work when we

1 know that you have SB 375 and we know we have this scoping
2 plan. So I don't feel like it's enforceable as it's
3 written right now under the current plan.

4 CHAIR NICHOLS: Okay.

5 DEPUTY EXECUTIVE OFFICER KARPEROS: If I could
6 take a moment to respond?

7 CHAIR NICHOLS: Excuse me?

8 DEPUTY EXECUTIVE OFFICER KARPEROS: If I could
9 take a moment to respond to Ms. Takvorian.

10 CHAIR NICHOLS: Oh, yes, sorry. Couldn't tell
11 where the voice was coming from.

12 DEPUTY EXECUTIVE OFFICER KARPEROS: Down here.
13 I'm over here.

14 (Laughter.)

15 CHAIR NICHOLS: Hi. Thank you, Mr. Karperos.

16 DEPUTY EXECUTIVE OFFICER KARPEROS: I'm sorry.

17 CHAIR NICHOLS: That's okay.

18 DEPUTY EXECUTIVE OFFICER KARPEROS: The -- as was
19 referred to in the staff report, the quantification for
20 what we see as the sort of vehicle activity changes needed
21 to support the scoping plan was mapped out in the
22 development of the Mobile Source Strategy.

23 And that translates -- just to use the number,
24 that translates to about a 7 and a half percent reduction
25 in VMT from the current baseline. And the current

1 baseline includes the existing SCSs.

2 We've been clear in communicating that number
3 with the MPOs, that from ARB staff's perspective that's
4 the long-range target that we're looking for, and we need
5 to start to think about that number from the top down.

6 Under 375, the MPOs are authorized to also do
7 their own analysis and recommend to the Air Resources
8 Board what they believe the targets ought to be. That
9 process is under -- is underway now. To be perfectly
10 frank, we're frustrated in the amount of time that it has
11 taken for the MPOs to provide that number. They are
12 wrapping up their analysis, so we should be able to have
13 that shortly.

14 We do have scheduled for you in March -- for the
15 Board meeting in March actually a review of what -- the
16 recommendations that we're getting from the MPOs, and a
17 comparison to that from what we see as needed from the top
18 down perspective. So we'll have that information as we
19 move forward with the development of the scoping -- and
20 your action on the scoping plan.

21 BOARD MEMBER TAKVORIAN: Okay. Well, I
22 appreciate that update. I guess I want to say, as
23 pointedly as I can, that if we don't have that, I don't
24 see how we complete the scoping plan. And I don't want to
25 be yet another source of pressure, but that's what we're

1 here for, right?

2 And I think that it's so critical. And actually,
3 I think we can use our need to really move forward on the
4 scoping plan to really ask the MPO process -- the MPOs and
5 the process to really move forward in a way that we really
6 need it to. So I really don't want to be up here in April
7 saying, you know, this isn't good enough, because that
8 hasn't been done yet, and it's this big gaping hole.

9 And the last thing I would say is ARB is so
10 amazing on mobile sources. We need that kind of
11 commitment on transportation infrastructure and on transit
12 on accessible, affordable transportation. And that's
13 going to benefit disadvantaged communities so enormously,
14 and it gets to the benefits that we need to quantify. If
15 you can't get to a better job, your life doesn't get
16 better. If you're stuck being able to walk, because you
17 can get to transit, you -- your opportunities are really
18 limited.

19 So this is a transformative kind of process that
20 I'm really proud that we're part of. And I really want to
21 see it go farther. So thanks very much.

22 DEPUTY EXECUTIVE OFFICER KAPEROS: I appreciate
23 that direction. I'll be meeting with the executive
24 directors of the largest MPOs next week, and I'll carry
25 that message forward.

1 BOARD MEMBER TAKVORIAN: Good luck.

2 CHAIR NICHOLS: Okay. I think there's a lot here
3 to discuss, and obviously a lot of work ahead. I want to
4 again express our appreciation to the EJAC for your
5 incredible work so far, and the work that's ahead of you.
6 Oh, one more. Sorry. You were -- I wasn't looking to the
7 other side.

8 BOARD MEMBER FLOREZ: Sorry, one more.

9 CHAIR NICHOLS: Go ahead.

10 BOARD MEMBER FLOREZ: One more. Thank you Madam
11 Chair.

12 CHAIR NICHOLS: Senator.

13 BOARD MEMBER FLOREZ: You know just for the
14 group, I just want to get some -- one of you or all of
15 you, are you okay with what the Chair laid out in terms of
16 timeframe today?

17 MS. GARCIA: So, no.

18 (Laughter.)

19 MS. GARCIA: I'm sorry to say that. I mean,
20 there is -- I see no foreseeable path by which we can
21 meaningfully consult our communities and come forward with
22 additional recommendation with staff trying to complete a
23 plan in March. I don't -- I see that as incompatible and
24 almost wasting staff's time. Because if we do come
25 forward with something transformative, and it's like, oh,

1 my gosh, great idea, they're just going to go back and
2 start over again. So it doesn't seem like a smart process
3 for me. I'd like to see us at least wait until the summer
4 and tell staff that we can at least wait until the summer.

5 BOARD MEMBER FLOREZ: Yeah. And the reason I
6 ask -- I don't know if this mic is on or not. But the
7 reason I ask is that we -- you know, at some point, the
8 Board needs to consider a policy that allows us to come
9 back with things that -- in some sense, where we have more
10 information, I think is what you are were saying, we're
11 able to come back and revisit.

12 I know we do this on regs. I know we do this in
13 some sense. But I think we should have -- there's always
14 an uncomfort here where we -- we extend here from a Board
15 perspective 15 days, 60 days, 90 days. And, you know, no
16 one ever asks the question, I think, publicly whether
17 you're satisfied with that. And I think -- privately, I
18 think the answer always is no, because there's never
19 enough information to allow you to do the analysis, do
20 injure job, I mean, I think is the -- and I agree with
21 that.

22 I think we're always going to have new things
23 come up, and I think we're always going to have closure
24 and deadlines and things of that sort, but I don't think
25 there's really a process for the Board to come back at

1 some point and actually say, if something of significance
2 is truly there, we have an ability to come back and really
3 solve it.

4 You know, I think Martha mentioned the adaptive
5 management plan a little earlier. I mean, that's an
6 ongoing transformative thing. And I think we're going to
7 find things out even after some of the deadlines are
8 passed. So I -- you know, I would like to ask the -- with
9 the Chair's forbearance, with the Chair and the -- our
10 Executive Director try to -- try to come back maybe next
11 meeting as well, thinking about what that process might
12 look like, so that we don't, in essence, have like some
13 deadline that you feel uncomfortable with that closes and
14 we can't come back with more information that would have
15 informed us in a different direction.

16 So, you know, I think we're going to continue to
17 argue about deadlines, and, you know, is this enough time
18 or not? And I think from the EJ community, and I think
19 even from our side of the dais, no one is ever pleased,
20 because it seems like no deadline is ever good enough, or
21 long enough, or there's never going to be enough
22 information.

23 So, you know, I'd like to ask Mr. Corey if the
24 Chair would allow us to at least think about, you know,
25 what the might look like, so that you feel in some comfort

1 when we get new information. So I don't know if that's,
2 you know, of value, but I do think more time is good. I
3 definitely want to thank, you know, the Chair for allowing
4 more time. I think it's a great process. I think that's
5 positive, but I still think we're going to get to that
6 point in time where we get more time, and within a couple
7 of weeks you're going to say, rightfully so, we still
8 don't have the necessary information for that deadline
9 either.

10 So, you know, maybe the Board should be thinking
11 about a different metric, and that is how do we clawback
12 information when new information is available and actually
13 try to figure out how to do something that makes everyone
14 feel better, that things aren't closed and you missed
15 something that would have been very vital? So that's my
16 first comment.

17 CHAIR NICHOLS: So, if I may, I know you directed
18 your question at Mr. Corey, but I'd like to jump in before
19 I turn to him to answer.

20 BOARD MEMBER FLOREZ: Please. No, I actually
21 said through the Chair as well, so, you know --

22 CHAIR NICHOLS: Thank you. So, thank you.

23 So I agree. My opening comments were maybe a
24 little bit short in terms of what I had in mind, other
25 than to say that I didn't want to make a ruling on the

1 request that had come in for 6 weeks, because I thought 6
2 weeks was arbitrary also.

3 In terms of how we think about this problem, the
4 scoping plan is different, in some respects, from other
5 plans, for one thing because it doesn't sit on a shelf.
6 It gets used very regularly as guidance for action that
7 the Board is taking. And so it is -- it's required to be
8 updated frequently, and it is referred to frequently, not
9 just by people out in the communities, but by the ARB
10 itself as it designs its work.

11 And so it is in that sense a living document that
12 has to constantly be available and open to being updated.
13 At the same time, there also has to be some finality in
14 terms of versions. Maybe, we have additions like
15 software, you know, 2.0, and 3.0, and then we could also
16 have 3.1 or whatever, because there will be a need for
17 additions and changes as -- I know that's what you're
18 thinking and I agree with you.

19 So how we manage to balance those 2 things to
20 give enough sense of direction and clarity, so that that
21 people don't say, well, they're working on another update,
22 so let's not do anything yet, because another update is
23 just around the corner, versus the desire to make sure
24 that we are, in fact, capable. And I know that this is
25 what the EJAC is worried about, that if the bomb shell,

1 you know, arrives, we're somehow going to not be able to
2 cope with it or we'll take 2 years to adjust to it.

3 Neither of -- you know, that's just not
4 acceptable, and I agree with that. So I want to support
5 your suggestion that we ask staff to recommend a process
6 by which we can incorporate new data, while at the same
7 time producing a document which is capable of being acted
8 upon, because we do have to have both of those things, I
9 think. If that's clear enough as a direction in terms of
10 what we're -- what we're looking for, then all you have to
11 do is produce it.

12 (Laughter.)

13 EXECUTIVE OFFICER COREY: Of course.

14 (Laughter.)

15 EXECUTIVE OFFICER COREY: SO as part of the
16 February report back to the Board, we'll incorporate this
17 part of the discussion. So when the Board ultimately acts
18 on the scoping plan, it recognizes a fact here that we all
19 know. There's going to be additional information. There
20 will be additional studies. Science evolves, and it's how
21 does that information relate to the Board, how is it
22 identified as really significant, and what are the options
23 available to the Board, which are vast, but we'll talk
24 about that.

25 BOARD MEMBER FLOREZ: Thank you, Madam Chair.

1 I just have a last question not related to this.

2 CHAIR NICHOLS: Sure. Okay.

3 BOARD MEMBER FLOREZ: So maybe just to Mary Rose.
4 In the presentation of the scoping plan, and in your
5 presentation as a group, where are we on offsets? I
6 didn't see it, and I didn't kind of --

7 MS. TARUC: It actually --

8 BOARD MEMBER FLOREZ: Can you give us a little
9 summary on that, please. Okay.

10 MS. TARUC: We are still opposed to offsets. It
11 was actually in the slides. We are hearing from staff
12 that they would consider eliminating offsets. We want to
13 keep going in that direction. We want to see, again, the
14 emissions reductions in our communities and in California
15 first, because what the CEJA Cushing report shows is that
16 over 80 percent of offsets are out of this -- out of
17 State. And so when we talk -- when we're looking at
18 greenhouse gas reductions, there -- those offsets, those
19 millions of offsets are outside of California.

20 And so if there is a correlation -- we know
21 there's a correlation between greenhouse gases and
22 criteria and toxic pollutants, that we want to see those
23 GHG reductions with those co-pollutants in California, in
24 EJ communities. And it's part of our priority
25 recommendations.

1 Thank you.

2 BOARD MEMBER FLOREZ: Thank you.

3 CHAIR NICHOLS: Okay.

4 BOARD MEMBER MITCHELL: Madam Chair, I have a
5 follow-up question that. Pardon me.

6 CHAIR NICHOLS: Okay. Go ahead. I'm wanting to
7 give the court reporter a break and to talk about our
8 timing, so I do want to wrap this part up, but go ahead.

9 Ms. Mitchell, yes.

10 BOARD MEMBER MITCHELL: I just wanted to ask,
11 because I know that a lot of the offsets are outside of
12 California, because if it's regulated within California,
13 it can't be an offset.

14 But part of the plan is this new look at dairy
15 digesters and that whole idea of reducing short-lived
16 climate pollutants. Could those ever be used as offsets
17 or are they considered already regulated?

18 DEPUTY EXECUTIVE OFFICER CHANG: So there is an
19 offset protocol for dairy digesters. And there are
20 projects that happen within California and projects that
21 are outside California that are covered by that program.
22 As part of the 1383 program to look at reducing
23 short-lived climate pollutants, the legislation does call
24 for us to regulate as fairly far out into the future.

25 What we're going to be working on in the next few

1 years in collaboration with CDFA and with the dairy
2 industry is getting pilot projects out there working to
3 eliminate some of the obstacles that some of those
4 projects have experienced in California. So we would
5 expect to see more of those kinds of projects, as we're
6 working on technical feasibility, economic feasibility,
7 understanding the dairy industry, as we're, you know,
8 preparing for what a regulatory structure would look like.
9 So we would expect to see more opportunities for those
10 kinds of projects in California.

11 MS. TARUC: Can I add that the EJAC members who
12 are from the Central Valley, who live next to these large
13 dairies are opposed to using those projects as climate --
14 as climate programs, because it takes into -- the problem
15 that we see is that the dairies are a problem source for
16 our communities. And to accept that they are going to
17 continue and we just capture their emissions and turn it
18 into fuel is not acceptable to our communities, because it
19 does not change the problem that exists with dairies and
20 school children living next to them. So we have critical
21 concern about those dairy methane climate programs.

22 BOARD MEMBER MITCHELL: Okay. Thank you. That's
23 helpful.

24 VICE CHAIR BERG: No. I was just going to jump
25 in for you and start the discussion. And now you're here.

1 CHAIR NICHOLS: Do you want to speak?

2 Dr. Sherriffs.

3 BOARD MEMBER SHERRIFFS: Yeah. No, I have to
4 speak to health. And just to reiterate the comments
5 earlier about measuring health, how important that is,
6 both because it is a significant cost of carbon, and also
7 because the comments earlier about needing to demonstrate
8 to communities, because this is really about prevention.
9 And prevention is a very hard sell.

10 You know, I see a case of pertussis in the
11 office, and I understand how it was prevented in the
12 parents who chose to immunize their children. But many of
13 those parents are still questioning, gee, was it the right
14 decision to immunize my child?

15 And so it's so important when we're dealing with
16 something that won't happen. We need to be sure that we,
17 as best we can, understanding the parameters are going to
18 be broad, but that estimate is very helpful to
19 demonstrating to communities the value of this work.

20 Thank you.

21 CHAIR NICHOLS: One of the blessings, and also
22 the problems, of having a large Board is that we've got a
23 lot of people here who know a lot, and think a lot, and
24 actually have a lot to contribute to this discussion. We
25 need to have a workshop for the Board actually to talk

1 about some of these issues in front of the public -- I
2 mean, in public.

3 I am increasingly seen -- I don't want to be
4 managing, you know, 3-minute increments or less for my
5 Board members here either. These are some deep issues
6 that are being raised here, some of which we may agree
7 about, some of which we may actually disagree about, and
8 we need to talk about why and how we do disagree, if we
9 do, and what we're going to do about that, so -- because
10 ultimately we do have the responsibility for making the
11 decisions.

12 It has been made more difficult by the fact that
13 the EJAC is a Committee which is subject to the public
14 meeting laws. And while I don't think we're afraid to
15 talk in public, there are times when it would be really
16 good to be able to have a meeting where we could just all
17 kick-off our shoes -- in my case at least, that's an
18 important element --

19 (Laughter.)

20 CHAIR NICHOLS: -- and have a conversation that
21 was a little more informal than what we get to have here.

22 So I want to suggest that sometime between now
23 and March, maybe even between now and the February meeting
24 or in connection with the February meeting, that we try to
25 convene such a gathering. It doesn't have to be

1 mandatory. Although, I suspect everyone would want to
2 attend. And I realize that scheduling therefore is going
3 to be very difficult.

4 But I do think it would be a good thing to do.
5 I'm seeing some good looking faces and thumbs up around
6 here. So I'm thinking maybe I'm capturing a good vibe.
7 Okay.

8 So, to staff, let's try to make this happen.
9 We'll isolate the issues that were raised. Primarily, I
10 think that suggestion template that Mary Rose used is
11 probably a good organizing outline to build the discussion
12 around, but we may want to add some other elements to it
13 as well. So that's enough for that.

14 What I want to do now is point out that it's
15 almost noon. It will be noon probably by the time I
16 finish my sentence, and we have one more invited speaker
17 who, all by himself, Jim Bushnell -- James Bushnell from
18 UC Davis is going to represent -- is going to speak to us
19 about the economic aspects of the soaping plan, and --
20 which is an extremely important issue for us. And at some
21 point, we're going to take a lunch break.

22 My suggestion is this that we try to take a
23 5-minute comfort break for all, and get back here, and
24 then go until 1:00 with Mr. Bushnell, and also the --
25 beginning with our list of 37 people who've signed up to

1 come and speak to us here, and then we just proceed on
2 that basis.

3 Okay. So we will break now and we'll get back in
4 5 minutes.

5 (Off record: 11:58 a.m.)

6 (Thereupon a recess was taken.)

7 (On record: 12:04 p.m.)

8 CHAIR NICHOLS: If this Board will please come to
9 order.

10 Ladies and gentlemen, please take your seats.

11 Five minutes goes by really fast. But we're all
12 still here, and everybody has had a little bit of a
13 stretch break anyway. So our next speaker this morning,
14 before we start the list of public witnesses, we're going
15 to hear from Dr. Jim Bushnell from UC Davis. He is in the
16 Department of Economics, and he's one of our economic
17 reviewers.

18 So if Professor Bushnell can make his way to the
19 podium, a podium. There you go. Hi.

20 DR. BUSHNELL: Thank you. Hello. Okay. I'll
21 try to make this quick, because it sounds like there's a
22 big back-up. So I am part of a group of economic
23 reviewers of the scoping plan. So we're going to switch
24 gears a little bit and talk about the economic analysis of
25 the scoping plan.

1 (Thereupon an overhead presentation was
2 presented as follows.)

3 DR. BUSHNELL: I have a couple slides. I don't
4 really need them, but I learned that the indirect benefit
5 is I don't have to stare at myself on the big screen when
6 I do this thing.

7 (Laughter.)

8 DR. BUSHNELL: So as was pointed out, the
9 analysis is quite new. We haven't, you know, looked under
10 the hood a whole lot. And so these are qualitative
11 impressions that I think you can take in the spirit of
12 important things to consider when kind of consuming the
13 economic analysis or trying to interpret the economic
14 analysis. And I have 4 sort of main points.

15 --o0o--

16 DR. BUSHNELL: The first is kind of reiterating
17 the punch line of the analysis, which is that the scoping
18 plan measures, or the policies at large, should have, or
19 are shown to in the modeling, to have a modest impact on
20 the California macroeconomy, GSP, and other sort of
21 macroeconomic indicators. And that's if everything goes
22 as expected, which in model speak means that if the
23 assumptions going into the model actually turn out to be
24 accurate, and shown to be reasonable representations of
25 what the costs turn out to be.

1 And so that's going to an important qualifier I'm
2 going to get to. I think the intuition behind this -- so
3 it's a pretty robust kind of result, in the sense that --
4 and I've done two of these now. I've -- many of us were
5 around 10 years ago trying to look at the last economic
6 analysis of the last scoping -- big scoping plan exercise.

7 And the intuition I've developed is just that
8 California's macroeconomy is just not real energy
9 intensive or carbon intensive. And so policies that raise
10 within reason the costs of energy or carbon, especially if
11 those are raising revenue that gets recycled back into the
12 economy, just aren't going to have a big impact in moving.
13 They could be slightly positive, slightly negative, but
14 they're not going to have a big impact.

15 And so that kind of leads to the second point
16 though, which is for costs that are within kind of reason,
17 as estimated by the model, we shouldn't expect a big
18 impact. But within the scoping plan alternative measures,
19 I think the modeling falls short in trying to capture the
20 effects of uncertainty. And it's important to recognize
21 that the -- there are big differences in how each of these
22 alternatives would deal with uncertainty, in terms of
23 unexpected costs, or maybe certain program assumptions are
24 much less effective than what we assumed.

25 And so when we look at numbers that kind of came

1 out earlier, comparing the old Alternative 1 to say the,
2 what is now called, the proposed strategy, one can look at
3 those expected numbers, but one needs to realize that if
4 we have surprises that certain types of programs, like cap
5 and trade or a carbon tax, are better equipped to deal
6 with those uncertainties from an economic perspective than
7 programs that are sort of rigidly going to adhere to
8 certain types of activities, even if they are shown to be
9 much more expensive than other alternatives, as we learn
10 more about technologies about how things are effective.

11 And there are a lot of uncertainties behind these
12 models. There's a lot of assumptions going into the
13 model. I can't even pretend to say that I understand all
14 of them. But we do know there's a lot of important, you
15 know, and really impactful assumptions underlaying a lot
16 of this.

17 I'll add it's not just an economic cost issue
18 here. If we have surprisingly high costs that emerge
19 during a rulemaking process, where we're trying to really
20 flesh out the details of a regulation of one of these kind
21 of actions identified in the plan, you know, these --
22 these activities may turn out to be much less effective in
23 terms of environmental mitigation or much more costly, and
24 maybe not adopted at all. Without the cap-and-trade
25 structure or some other similar structure to back-up those

1 unexpected, ineffective outcomes, we don't have a quick
2 way to substitute some alternative in there. And so it's
3 an emissions certainty, insurance, as well as a cost-based
4 issue.

5 The other, sort of related point, is that the
6 models don't really deal with leakage particularly well.
7 It's not a focus of the modeling exercise. It's an
8 economic model. And the different alternatives identified
9 in the current iteration of the scoping plan deal with
10 leakage in very different ways, as was sort of raised
11 earlier on. The cap-and-trade mechanism has evolved a lot
12 of -- a lot of mechanisms for dealing with mitigating
13 trying to prevent leakage.

14 Some of the other alternatives, certainly the one
15 without any cap and trade, cap and tax perhaps. There
16 isn't an obvious analogous mechanism for trying to prevent
17 leakage. At best, we'd be starting from square one trying
18 to think of what those equivalents would be. And at
19 worse, there just isn't a way to sort of deal with leakage
20 in the same -- with the same level of effectiveness.

21 And then the last point is just that this is more
22 an economic wonky point, that there are costs in there.
23 It's a type of model that deals with the technology costs
24 of adopting different strategies. So we -- energy
25 efficiency -- or any technology in which you're making a

1 capital investment, and it's saving expenses in terms of
2 fuel, energy, expenses.

3 Those are the type of things that go into the
4 accounting of these models. And if you look at the sort
5 of details, there's going to be measures with negative
6 costs, because the capital cost savings -- or the capital
7 cost expenditures are smaller than the fuel savings that
8 you get out of them.

9 All economists sort of at least do a little
10 double take when they see anything with those kind of
11 negative costs, and you have to just dig a little deeper
12 and ask why that is. And often there are barriers, there
13 are behavioral barriers, economic barriers, there's
14 something that's preventing those investments being made.

15 And the tech-economic models don't represent the
16 costs of overcoming those barriers. You could call them
17 program costs or implementation costs, incentive costs.
18 Those are just not represented in the type of accounting
19 that goes into these types of exercises. So that's going
20 to have somewhat of an effect on some measures.

21 I think across different types of alternatives
22 that that effect will be bigger or smaller based on, you
23 know, how much they are rely on those types of measures.

24 --o0o--

25 DR. BUSHNELL: All right. So to summarize, I

1 just want to say the primary strength of the, what we
2 call, market-based environmental mechanisms, cap and trade
3 and carbon taxes, is their ability to adjust to surprises.
4 And when certain types of strategies turn out to be much
5 less effective than we thought, then within the cap and
6 trade mechanism, it's automatically switched -- it's
7 automatically switched to some other effective measure or
8 an alternative measure. That happens endogenously or sort
9 of automatically within a cap-and-trade program.

10 This advantage, which is kind of the fundamental
11 advantage of cap and trade is not captured in these
12 models, because the models are making assumptions about
13 what -- what the future will look like. There's a couple
14 sort of sensitivities thrown at it. But if the world
15 doesn't look like one of those 3 choices of the
16 sensitivity, the fact that some alternatives really react
17 better to the unknown than others is very hard to
18 quantify. It's very hard to model something that we don't
19 know up ahead of time.

20 And the last point, which I just have to make for
21 my economist colleagues who are somewhat dogmatic about
22 carbon taxes. So the -- a lot of the points I've been
23 making would apply to a carbon tax as well as a cap and
24 trade, the ability to adjust to uncertainty, the ability
25 to sort of backfill measures that turn out to not be as

1 effective as one might have expected, when putting a plan
2 together.

3 However, in this particular context, I think what
4 I'll call legacy factors, the fact that we've already gone
5 through ten plus years of rulemaking and tweaking the
6 Cap-and-Trade Program to try to deal with a really broad
7 set of diverse, you know, constituency interests, and
8 trying to balance those things, that's created what some
9 think is a very unwieldy sort of ugly mechanism. But
10 that's often compared to some idealized version of an
11 alternative like a carbon tax that people argue is much
12 simpler, but hasn't gone through the same sort of rigorous
13 kind of stakeholder process that would inevitably have to
14 happen.

15 So I think the comparisons are often between the
16 kind of warts that we have and the mechanism that's
17 survived all of this against some idealized, and perhaps
18 unrealistically, streamlined kind of alternative.

19 The other legacy element that's important to
20 point out is that we have regional partners. We heard
21 from one who wants to be a regional partner at the
22 beginning here. We have others that we're currently
23 trading with. And at least on the carbon side, the whole
24 kind of basis for defining success is being able to export
25 our models, our practices to other parts of the world.

1 And there is momentum happening now in the
2 cap-and-trade world, looking like that will happen. We
3 have Ontario wanting to join. We have Oregon sort of
4 considering a very similar type of program that should be
5 a good fit. Even Washington state has variations that
6 maybe could fit.

7 And so I fear that switching to some other
8 dramatically different mechanism is going to really
9 forestall that type of progress with external partnerships
10 and external really reductions happening outside of
11 California.

12 One last point I'll make, sort of apropos, the
13 earlier discussion about timing is that the cap-and-trade
14 system can exist with new -- newly developed complementary
15 measures. We've done this several times, where we've had
16 a cap-and-trade system and introduced new measures as
17 we've learned about new alternatives that we could try.
18 And so it's not that adopting a cap-and-trade system
19 forecloses the option of trying to do other specific
20 targeted measures.

21 However, I don't think it goes the other way. If
22 we got rid of the cap-and-trade system, it would be quite
23 a chore to try to bring it back, if we eventually had
24 regret about that choice. I don't know how the markets
25 would think about the reliability of it, and all sorts of

1 other, you know, issues having to do with
2 interjurisdictional sort of resolutions.

3 And so there is an optionality here that I think
4 hasn't really been considered, either quantitatively or
5 qualitatively that I just wanted to end with.

6 So that's all I have to say. Thanks.

7 CHAIR NICHOLS: You can't just leave without
8 asking --

9 DR. BUSHNELL: All right.

10 CHAIR NICHOLS: -- answering some questions, if
11 you don't mind.

12 First of all, this is --

13 DR. BUSHNELL: I was trying to get right to
14 lunch.

15 CHAIR NICHOLS: -- possibly the first time I've
16 ever heard a presentation by an economist that didn't
17 include a graph. Are you sure --

18 (Laughter.)

19 CHAIR NICHOLS: Are you sure you're actually an
20 economist?

21 (Laughter.)

22 CHAIR NICHOLS: Secondly, in all seriousness,
23 thank you very much for coming and particularly for giving
24 us some clarity about your views, and, you know, what can
25 and what can't be demonstrated with existing models.

1 However, I am frustrated, I guess is the simplest
2 way to say it, by the fact that we've been here before.
3 This is pretty much where we were when we adopted the
4 first scoping plan in terms of -- except that we don't
5 have a legacy to build on. We -- then we were just
6 hearing the theoretical reasons why a quote,
7 "well-designed", unquote Cap-and-Trade Program, which was
8 always being referred to by people who had never designed
9 a Cap-and-Trade Program and had no idea, you know, what it
10 was going to actually take.

11 Several years later, we now have, what we think
12 is, a well designed Cap-and-Trade Program, and it is
13 working. And there's reasons why therefore there'd be
14 costs associated with making a shift. But we still don't
15 have the ability to capture, in any kind of models that
16 seem to be available to us, at least some of the elements
17 that we are intuitively claiming - and I guess we have
18 some evidence to support this - have accrued -- some of
19 the things that have benefited California from the
20 Cap-and-Trade Program, such as the investments that have
21 occurred in new technologies, or the fact that as people
22 comply with the need to either reduce their emissions or
23 buy allowances, they do things that make their facilities
24 more efficient, so they don't have to go out and buy
25 allowances.

1 All of those things don't seem to be able to
2 actually be looked at in a quantitative manner. And I'm
3 wondering if we have failed, in some way, to, you know, do
4 the kind of research that needs to be done, whether
5 there's a way to get that kind of research done, so that
6 we'd have a better basis to use economics in decision
7 making. I just -- that's kind of an open-ended question,
8 but I would welcome your comments.

9 DR. BUSHNELL: Sure. And, you know, there's a
10 lot of -- a lot of people ask me, and I'm sure they ask
11 you, what has cap and trade accomplished?

12 And I realized, having those discussions, that
13 there is a bit of an image articulation problem with
14 cap-and-trade, in the sense that directed programs, you
15 know, a program that gives tax rebates for electric
16 vehicles, you can count how many vehicles that results in.
17 You have to do some more fancy stuff to try to figure out
18 what it's displacing, but there is a tangible sort of
19 narrative you can tell with a lot of these prescriptive
20 measures that is by design sort of not present with cap
21 and trade.

22 So we're pretty sure there are people who've seen
23 that even \$12 carbon price, and made investment choices
24 done -- you know, changed their consumption, done things
25 that reduced their emissions profile in response to this

1 carbon price. But we don't need to measure that. We
2 measure the emissions. We don't measure the activity that
3 does reductions through the Cap-and-Trade Program.

4 So trying to turn that around into a report ready
5 kind of narrative that measures those things is more
6 challenging. I think you have to do some more detailed
7 kind of comparison to other places, what would have
8 happened, you know, how does Nevada look compared to
9 California if we try to control for the other differences?

10 You know, it's getting into more Ph.D. E's kind
11 of econ analysis, that I think is -- hurts cap and trade
12 as a mechanism, and carbon taxes too, in the sense that
13 there isn't this sort of tangible kind of points you can
14 point to. You mentioned the investments, which are things
15 that have been counted, and I believe there are reports
16 that tried to identify them. They're a bit piecemeal. I
17 don't know if they've been aggregated in a way that sort
18 of tries to sum all those things together.

19 But at least those are -- those investments are
20 things that we can count. But the activity itself is
21 something that we should do more to try to measure, but
22 isn't required as part of the regulation itself, and so
23 that's why it hasn't been prioritized.

24 CHAIR NICHOLS: Other questions or comments?

25 VICE CHAIR BERG: Yeah. I would like to just

1 follow up on Chair Nichols. Thank you, Jim, for such a
2 thorough report. When you look at 10 years ago and we
3 have the same concerns, the same concerns on the modeling,
4 on the assumptions - as you stated we had no legacy to
5 fall back on, but as you look at 10 years ago today, what
6 were some of the assumptions, not specifically, but your
7 sense of how we handled the assumptions going in, were we
8 able to make the changes over the last 10 years? Because
9 looking back, we have a great success story. And looking
10 forward, we have even greater reductions and more things
11 to do, but how can we get a sense that it might not be as
12 forlorn as it feels.

13 DR. BUSHNELL: I wish I had a great answer to
14 that question. I do think that -- and actually in the
15 process of discussing with staff about how to think about
16 this study, you know, it kind of comes up. We'd like to
17 see more retrospective analysis. This is what economists
18 are actually better at is sort of looking backward program
19 evaluation, and understand how some of these programs
20 really have worked or not worked, because we're feeding
21 strong assumptions about how well they will work into the
22 next round of simulation. And it would be nice to know
23 whether those assumptions have any evidence sort of
24 supporting them. And I do think connecting those dots is
25 still something that we need to do a lot more work on.

1 So that said, I think one thing we've learned is
2 that there -- I mean, we kind of knew this, but we've
3 learned it sort of -- we've lived it, is that there is a
4 lot of uncertainty about a lot of aspects of our carbon --
5 of the economy, of carbon, and of abatement strategies.
6 And we have experienced less robust growth in emissions
7 than we expected.

8 And that keeps the carbon price lower than we
9 expected. And it's sort of interesting to walk through
10 the reactions to that. There are people who are sort of
11 frustrated that we're not raising more money from cap and
12 trade. But that's a result of the fact that we don't have
13 as much carbon emissions as we thought we would. And so
14 that's not necessarily a failure. You know, we haven't
15 had as much aggressive abatement activity maybe because we
16 haven't had as much emissions as we thought. Is that a
17 failure now to sort of -- that's kind of part of how one
18 should think about cap-and-trade and it's part of how one
19 should think about things like where the floor price
20 should be and where the ceiling price should be on a cap
21 and trade mechanism.

22 I often say the best thing we did with the cap
23 and trade mechanism was have that floor price. We have
24 the highest carbon price in the world and it's because we
25 had the highest floor price in the world. And so in the

1 face of uncertainty, those things were really important.

2 VICE CHAIR BERG: I appreciate your perspective
3 on that, because what I am hearing is that we were able to
4 look at these assumptions and be able to work with them
5 through the last 10 years, so we're on pretty solid
6 footing to be able to go forward, understanding there's
7 still great uncertainty. But going to the devil we don't
8 know would be great uncertainty as well.

9 And so trying to weigh these various scenarios,
10 really keeping all of these things in front of us will be
11 really important.

12 DR. BUSHNELL: Right. I would agree with that.
13 And I think there's still work that could be done to try
14 to quantify some of these benefits of -- in the face of
15 uncertainty and hopefully, you know, that can be done in
16 coming months.

17 VICE CHAIR BERG: I would support that too.
18 Thank you.

19 CHAIR NICHOLS: Ms. Takvorian.

20 BOARD MEMBER TAKVORIAN: Thank you.

21 Thank you, Mr. Bushnell, for your report. I just
22 had a question about whether your analysis of our analysis
23 incorporated the health, quality of life, and
24 environmental impacts that are often in low-income
25 communities of color and disadvantaged communities, and

1 how you would incorporate that into your economic
2 analysis?

3 And secondly, how you would respond to the
4 academic report that came from Mr. Cushing and colleagues
5 that showed that greenhouse gas emissions from facilities
6 that are located in disadvantaged communities and
7 environmental justice communities are substantially -- are
8 not substantially dropping? So I just wondered how you
9 factor that into your analysis?

10 Thank you.

11 DR. BUSHNELL: Okay. Yeah, a lot of layers
12 there. All good questions. So again, it's not our
13 analysis. We are sort of reacting and trying to just give
14 feedback to the analysis that staff and others have been
15 doing. My reaction to the early discussion about health
16 effects is that we should be very cautious about what we
17 expect from our models 15 years from now. That the more
18 precision we try to extract from them, the more, you know,
19 skepticism we need to apply to any results coming out of
20 it.

21 And so one of the challenges with trying to
22 measure health impacts is trying to understand what exact
23 measures would be applied. So we could -- we could assume
24 that greenhouse gas reductions could go down at certain
25 facilities by 10 or 20 percent, but if we don't know

1 exactly how that's going to be accomplished, we don't
2 exactly know what the local criteria pollutant
3 implications of that would be. And there's certainly
4 strategies that reduce greenhouse gas emissions, but do
5 not affect local criteria pollutants, and in some cases
6 even increase local criteria pollutants.

7 And so trying to measure -- and this is just kind
8 of the challenges that the consultants have had trying to
9 deal with a greenhouse gas policy, and then translate that
10 to measures that are addressing even greenhouse gases
11 requires a lot of assumptions. And then there's a second
12 degree of assumptions you have to make about what the
13 local pollutant impacts would be, which is not to say --
14 you know, there should be -- there will be very wide error
15 bars around anything like that.

16 And it has to do with trying to identify exactly
17 what the measures would be that would -- would be
18 implemented as part of this sort of broader scoping plan
19 framework.

20 BOARD MEMBER TAKVORIAN: So it sounds like
21 you're -- not to put words in your mouth, but it kind of
22 sounds like you're saying that the direct emission
23 reductions that the environmental justice communities has
24 been calling for, and the greenhouse gas reductions need
25 to be taken together, so that we can have more certainty

1 about what the future of our communities looks like.

2 DR. BUSHNELL: I guess the way I would put it is
3 that policies that are effective at reducing greenhouse
4 gases are not necessarily the same suite of policies that
5 effective at addressing local pollutants. And we sort of
6 focused on cap and trade as to whether that's -- but it's
7 really sort of all the greenhouse gas policies we've
8 adopted that have affected the data in the reports that
9 have come about.

10 It's, you know, been in the context of not just
11 cap and trade, but all of the complementary measures that
12 have been in place. And we can see what those measures
13 all combined have done to greenhouse gas emissions at
14 different facilities. We don't know what those facilities
15 would have looked like in the absence of those policies.
16 And so that's sort of the next step that would need to be
17 done in analysis. We can see what's happened.

18 The economy has grown. Building has, you know,
19 picked up. And so knowing exactly what economists call a
20 counterfactual, what the world would have looked like
21 without those regulations is the next step in trying to
22 understand the impact of all those regulations.

23 But I think we need to keep in mind that, you
24 know, what addresses global greenhouse gases is a
25 different set of regulations than ones that are targeted

1 at local pollutants. They can be correlated, but the
2 actions that reduce them may not necessarily be
3 correlated.

4 BOARD MEMBER GIOIA: So I just need to make one
5 comment. I'm not an economist, but when I hear -- when I
6 hear economists -- when I've spoken to economists about
7 sort of uncertainties -- and you've acknowledged yourself
8 the cost differences between scoping plan alternatives
9 could grow dramatically under uncertainty, and those
10 differences are not well captured in the current analysis,
11 it just -- it see -- that all economic analysis have
12 uncertainties. It just seems that economists have been
13 more willing to accept the uncertainties of economic
14 activities than health impacts. That's what I hear from
15 environmental economists.

16 And so part of it is pushing through and
17 understanding that there's uncertainty in all economic
18 analysis. But I think honestly there's a bias to not
19 accept the uncertainties in health impacts and benefits,
20 but to accept the uncertainties like in the -- like you
21 acknowledge exist in this analysis. And so it's just a
22 question of how much uncertainty, and how we define, and
23 acknowledge that there's uncertainty and identify a range.
24 That's sort of -- in listening to other discussion, that's
25 sort of an observation.

1 DR. BUSHNELL: Yeah. Thanks for that. Let me
2 clarify that bullet point. I think what I'm trying to
3 express is not just that there is uncertainty - that's
4 sort of obvious - but that the uncertainty -- the response
5 to the uncertainty that we would get out of the different
6 alternative measures, scoping plan sort of options, will
7 be different.

8 And so some -- you know, some --

9 BOARD MEMBER GIOIA: Yeah.

10 DR. BUSHNELL: -- plans respond to that
11 uncertainty differently than others. I think we can do
12 better trying to -- trying to capture that.

13 BOARD MEMBER GIOIA: Right. I think the
14 acknowledgement is we can always do better on how we, you
15 know, quantify, come up with a range, but that crossing
16 that line over into the health field seems to be a line
17 many economists don't want to -- you know, don't want to
18 cross. And they will put the uncertainties off in a
19 different category than the uncertainties that they're
20 dealing with in their traditional analysis.

21 So I guess I'm just pushing back on this point
22 that there's too much uncertainty on this health side, so
23 we shouldn't really include that, but we're acknowledging
24 there's uncertainties on all the other analysis we're
25 doing.

1 That's my point.

2 DR. BUSHNELL: Okay. Yeah. No, I'm not arguing
3 against including economic sort of translation of health
4 impacts. I think that is appropriate. It is being done.
5 I'm just trying to set expectations at the, you know, sort
6 of --

7 BOARD MEMBER GIOIA: Yeah, I think it's all about
8 expectations and understanding how exact all of this is
9 going to be, right.

10 DR. BUSHNELL: Yeah.

11 BOARD MEMBER GIOIA: And it's not exact.

12 DR. BUSHNELL: Far from it.

13 BOARD MEMBER GIOIA: We tend to find more exact
14 in numbers than in sometimes things that are not numbers.

15 DR. BUSHNELL: Yes, we take comfort in those --
16 in those numbers.

17 CHAIR NICHOLS: Yes, wise words.

18 Thank you so much for coming and for sharing your
19 thoughts. And we would now like to move to the very
20 patient, but important, people who have come to
21 participate in this discussion who've signed up to
22 testify.

23 So I'm just going to start calling. But
24 actually, if the list goes up, you can bring yourselves
25 forward. And I would also really appreciate it if you

1 would use both podiums to make it easier, and that will
2 cut time as well.

3 Okay. Ms. Darlington.

4 MS. DARLINGTON: Hi. Good afternoon. My name is
5 Christiana Darlington. I'm here on behalf of the Placer
6 Air Pollution Control District. Our new APCO just took
7 his position with us last year from your esteemed staff,
8 Erik White. He's traveling today and I'm speaking on his
9 behalf.

10 Today, we'd like to -- I'm going to be speaking
11 very quickly, since I have 3 minutes, so please bear with
12 the speed. So what we're -- what we're speaking with
13 about today is black carbon from wildfire. That is the
14 specific issue that we would like to draw your Board's
15 attention to for these comments. Black carbon is
16 essentially the same thing as PM2.5, in case you're
17 interested in making those correlations, okay? So for
18 reference.

19 The global warming potential of black carbon is
20 hundreds to thousands times larger than CO2 alone. This
21 draft plan states, just to note, that in 2013 other
22 sources of black carbon, not wildfire sources, emitted
23 10.7 million metric tons of CO2e equivalent. And that was
24 emitted through industrial sources, diesel trucks, cooking
25 and other types of activities. That same year in 2013, 1

1 wildfire emitted 11.7 million tons of black carbon.
2 That's a half million more tons than was emitted by the
3 entire source of anthropogenic black carbon black. Black
4 carbon from wildfire cannot be ignored in this plan. It
5 is an essential part of reducing greenhouse gases in
6 California.

7 Another mention of black carbon in your plan is
8 that in the decade of 2001 to 2010, 150 million metric
9 tons of CO2e equivalent was emitted from land disturbance.
10 Of those 150 million tons, 120 million were associated
11 with wildfire. Again, we're -- we have a theme here. We
12 can do a lot to reduce wildfire -- to reduce black carbon,
13 but when it comes to looking at the real reductions, it's
14 going to come in reducing wildfire. So when we ask
15 ourselves what can we do about this, the science has
16 improved significantly relating to how we can predict
17 wildfire. We also understand the health impacts of
18 wildfire and PM2.5.

19 Some of the benefits you could see with reducing
20 black carbon from wildfire includes your EJ community's
21 interest in seeing those co-benefits from PM2.5, because
22 those are -- those bring some significant health programs.
23 So when you reduce black carbon, you reduce PM2.5, you
24 increase the health concerns of your EJ community.

25 Your economic analysis also in your plan talks

1 about reducing costs, and there's no benefit to the
2 short-lived climate plan implementation in the economics
3 line item. If you -- if you take a look at how much money
4 you could save by reducing catastrophic wildfire and
5 emission -- and response time at CalFire, I promise you,
6 you could fill that block with millions of dollars. You
7 could see more benefits to our State for -- in the
8 economics category.

9 I wanted to also suggest that we bolster up the
10 references to the forest carbon action team's work in your
11 existing plan, and -- okay. That went fast

12 CHAIR NICHOLS: You did it.

13 MS. DARLINGTON: And hopefully support our work
14 to get black carbon more recognized at the legislature.
15 Thank you very much.

16 CHAIR NICHOLS: Thank you. Mr. Pike.

17 MR. PIKE: Hi. Thank you for the opportunity to
18 provide comments today. My name is Ed Pike, and I Energy
19 Solutions, a professional engineering services firm, whose
20 mission is reducing carbon emissions and improving energy
21 and water efficiency.

22 And we commend you for ARB's innovative and
23 critical work to reduce greenhouse gas emissions. And we
24 would also like to recommend including strategies to
25 achieve the benefits of fuel efficient passenger vehicle

1 replacement tires as you work to finalize the 2030 scoping
2 plan. And our research for the South Coast Air Quality
3 Management District has found that replacement triers are
4 generally less efficient than the factory-installed tires
5 on new vehicles. As you issue your commendable
6 regulations to push auto makers to reduce the greenhouse
7 gases from new cars as much as possible, they will respond
8 by continuing to reduce the fuel use due to tires, but
9 that will increase the gap between what's available in the
10 replacement market now.

11 Fortunately, ARB found in the 2014 greenhouse gas
12 scoping plan that fuel efficient passenger vehicle --
13 excuse me passenger vehicle tires can be utilized by both
14 new and in-use vehicles in the near term to achieve
15 greenhouse gas emission reductions, and the strategies
16 could include incentives, potentially standards. So
17 there's a lot of opportunity to have improvements, and in
18 addition, fuel efficient -- fuel efficient replacement
19 tires are consistent with the State level goals that were
20 described earlier by staff looking at economic benefits,
21 air pollutant co-benefits, and similar types of benefits.

22 The California Energy Commission has found that a
23 10 percent improvement in the rolling resistance for
24 replacement tires could reduce greenhouse gases by 2.7
25 million metric tons, which is nearly a quarter of the

1 additional transportation sector greenhouse gas reductions
2 called for in the 2030 draft plan.

3 And in addition, the CEC found that they would
4 save consumers \$882 million annually. And we would
5 estimate that the average driver would save about \$800
6 over the life of their vehicle. And that's especially
7 important because our study for South Coast Air Quality
8 Management District found that. This opportunity was
9 particularly beneficial and applicable for disadvantaged
10 communities, because those residents are much more likely
11 to be driving vehicles using replacement tires, due to
12 affordability of new cars, and would especially benefit,
13 of course, from air quality benefits that could be
14 achieved by fuel efficient fires.

15 So again, we commend you for your work on the
16 2030 plan and recommend including this opportunity.

17 Thank you.

18 CHAIR NICHOLS: Thanks.

19 Mr. Beebe.

20 MR. BEEBE: Good afternoon. My name is Bud
21 Beebe. And I'm here as a senior advisor to the California
22 Hydrogen Business Council. The California Hydrogen
23 Business Council certainly supports the ARB's efforts and
24 its vision as the trans-2020 scoping plan is developed.
25 The Business Council appreciates the role for hydrogen

1 that the ARB has included in the present draft, and
2 indeed, all of the encouraging programs and plans that are
3 done, not only here, but also at the California Energy
4 Commission and in the local AQMDs and other agencies.

5 So it's true, of course, that the hydrogen
6 business community would like to see some more specificity
7 of hydrogen programs in the scoping plan, for instance,
8 development of hydrogen fueling infrastructure,
9 development of zero carbon hydrogen production facilities
10 that can be compatible with the fueling requirements of
11 that infrastructure, renewable energy, growth, and
12 renewable energy grid integration, and, of course, for the
13 transformation of air quality impacts to our communities
14 around California.

15 For instance, the scoping plan uses the general
16 term electrification of transportation. This includes
17 certainly hydrogen and fuel cell electric vehicles, as is
18 acknowledged, but this may not always be understood by the
19 broader stakeholders. And it would really be helpful in
20 other stakeholder processes, in other agencies, if they
21 could specifically see in the scoping plan that hydrogen
22 and fuel cell electric vehicles were a specific part of
23 the future.

24 The CHBC will participate, of course, in coming
25 workshops to fully cover some of these important hydrogen

1 opportunities. And the CHBC supports your vision for a
2 cleaner energy future that fully supports California's
3 economic and health needs, and your use of scientific
4 facts as a basis for the scoping plan process, which
5 transparently includes a broad input from all communities.
6 Thank you so much for your attention.

7 CHAIR NICHOLS: Thank you.

8 MR. LAGERCRANTZ: Madam Chair, the Board, thank
9 you so much for allowing me to come and talk to you. My
10 name is Jakob Lagercrantz. I'm the founder of the 2030
11 Secretariat from Sweden. I bring you greetings from
12 Sweden.

13 We are a organization committed to decarbonizing
14 the transport sector. We work with a multitude of fuels,
15 a multitude of power trains, and behavior, maybe the most
16 forgotten part of the change for meeting the 2030 targets.
17 I want to say how important it is what you're doing here
18 today. We are looking at you. You're a beacon of hope on
19 the other side of the Atlantic. We need large countries,
20 if I may call you. You're a state, but economy-wise,
21 you're a country.

22 (Laughter.)

23 MR. LAGERCRANTZ: We need large economic powers
24 actually pushing the 2030 agenda. So we need what you're
25 doing and we're looking at it very closely.

1 We represent large and small companies in Sweden.
2 We're not for profit representing the largest and some
3 start-ups, but some of the largest companies, all the fuel
4 companies in Sweden. They are committed to actually
5 meeting the 2030 target. In Sweden, the 2030 target is a
6 70 percent reduction in carbon dioxide in the transport
7 sector by 2030.

8 The fuel companies in Sweden are telling us push
9 harder. We are not sure that the politicians will
10 actually deliver. We want more. We want more action,
11 because then we have certainty how we can make money in
12 the long term and saving the climate. Of course, the fuel
13 companies they don't own any oil sources. They are
14 refineries. They could produce fuels from the forest,
15 from waste, from anything.

16 We've had a fantastic week here in California.
17 We've been to Tesla. We've been to the electric bus
18 company Proterra. We've been to CalStart. We've met so
19 many different innovative companies. We need that
20 strength with us in Sweden. We would like to see a much
21 stronger cooperation. We have our plan, our scoping plan.
22 Our politicians need to hear about the ZEV credits, the
23 Low Carbon Fuel Standard, your cap and trade. Maybe
24 there's something that we can share with you on labeling
25 of the fuels that will come on every pump from 2018.

1 There will be a climate label on all the fuel pumps in
2 Sweden. That's good stuff. It's good for the consumer.

3 So I just want to say it's a pleasure to be here.
4 I'm honored to speak to you. We are looking very closely
5 at what you're doing.

6 Thank you very much.

7 CHAIR NICHOLS: Thank you for being here.

8 Mr. Biering.

9 MR. BENGTSSON: Good morning, Chair Nichols and
10 members of the Board. I am not Mr. Biering. I am Nathan
11 Bengtsson. Pleased to follow a fellow Swede. I'm here
12 today to represent -- represent Pacific, Gas & Electric
13 Company. And that perspective is firmly rooted in the
14 interests of the millions of Californians who we provide
15 light and heat to.

16 Our customers are concerned about the well-being
17 of their communities like we've heard today from other
18 folks in this room. And one of the ways that we can
19 contribute to the health and well-being of Californians is
20 by providing affordable, safe, and reliable energy, both
21 on a strong and growing foundation of the renewable
22 resources that our State is famous for.

23 And I want to point out that last week we put
24 forth a \$250 million electric vehicle proposal, \$211
25 million of which is focused on electrifying heavy- and

1 medium-duty vehicles directly tackling some of the most
2 significant contributors to local criteria air pollution,
3 almost 50 percent of which comes from the transportation
4 sector.

5 So with all that said, my message today is
6 simple. And that's just that basically the scoping plan
7 options that include cap and trade are the best way for
8 our State to achieve our environmental goals.

9 As the magic 8-ball and preeminent and academic
10 advisors tell us, "Uncertainty is certain". California's
11 greenhouse gas reduction goals are ambitious and long
12 term, and myriad factor will influence whether and how
13 difficult it will be to achieve those goals.

14 So the all cap-and-trade and preferred scoping
15 plan options are the best options for ensuring that
16 greenhouse gases will be limited to a fixed cap, but in a
17 way that delivers emissions reductions cost effectively.

18 And additionally, if our direct -- if our direct
19 measures achieve more emissions reductions than expected,
20 cap and trade allows allowance prices to adjust, meaning
21 California can achieve its environmental goals without
22 being locked into arbitrary extra costs for households.

23 And I want to say that speaking of costs, UCLA's
24 Luskin Center for Innovation study actually found that low
25 income Californians are actually very well protected, in

1 that cap and trade may actually provide a financial
2 benefit.

3 Additionally, I have to point out that cap and
4 trade is beneficial, because it's the only option that
5 leaves the door open for others to follow behind us, like
6 our friends in Sweden here. We have to leave that door
7 open especially at a moment when the federal policy is so
8 uncertain. In comparison, a scoping plan composed
9 entirely of direct measures is inflexible, and it could
10 require new regulations that might not be adopted in time
11 to achieve emissions reduction.

12 Moreover, a carbon tax is essentially just a less
13 flexible and less certain version of cap and trade from an
14 environmental perspective. If our direct measures
15 underperform, cap and trade prices -- well, pardon me. If
16 the carbon tax amount isn't right in getting the
17 reductions we need, there could be a complicated political
18 process to change that price, including maybe even a
19 two-third's vote every time we want to adjust, and that
20 could be politically difficult. Cap and trade adjusts
21 automatically.

22 So I'll just end by saying that a scoping plan
23 that includes cap and trade is the best option to achieve
24 our environmental goals. California's State agencies and
25 top academics agree on this issue, and the data shows that

1 cap and trade is reducing emissions and protecting
2 customers, even as jobs and businesses continue to grow.

3 Thank you.

4 CHAIR NICHOLS: Okay. Are we going to return to
5 the order that we had before? I'm not clear if we've lost
6 a lot of people or what's going on here.

7 MR. BIERING: Hi, Chair Nichols. Sorry for the
8 confusion there. This is Brian Biering on behalf of
9 Turlock Irrigation District. Nathan and I traded places
10 with --

11 CHAIR NICHOLS: You just switched.

12 MR. BIERING: We switched.

13 CHAIR NICHOLS: You did a voluntary trading --
14 (Laughter.)

15 CHAIR NICHOLS: -- and you didn't have
16 pre-approval.

17 (Laughter.)

18 BOARD MEMBER GIOIA: But he was way further down
19 the list.

20 CHAIR NICHOLS: Got it. Oh, yes. All right.

21 MR. BIERING: So since my clock has started, I'll
22 go ahead.

23 CHAIR NICHOLS: Yeah, go ahead.

24 MR. BIERING: I'm here on behalf of Turlock
25 Irrigation District. TID was the first publicly-owned

1 utility formed in the State of California. I wanted to
2 highlight 2 unique aspects of TID that I think are germane
3 to your analysis of the various alternatives in the
4 scoping plan. The first is that the majority of the
5 consumers that we serve are in disadvantaged communities.
6 So we are particularly sensitive to the cost impacts on
7 those customers.

8 The second is, is that TID serves its own
9 balancing authority, which means that within our service
10 territory we have to balance our load and our generation.
11 And it limits our ability to specifically integrate
12 renewable resources right in our service territory.
13 Instead, we often purchase renewable resources outside of
14 our service territory, or outside of the State of
15 California.

16 Why that's important is, is that the cap and
17 traded is a cost-effective measure, in part because it
18 gives us the flexibility to manage our resources, and to
19 achieve GHG emission reductions where they are the most
20 cost effective.

21 We're also very sensitive to the cost impacts of
22 our disadvantaged -- on our disadvantaged communities.
23 And the reason that this is important to us is that unlike
24 some of the other utilities, where disadvantaged -- they
25 may serve disadvantaged communities, but they're a small

1 percentage of the overall customer base, most of our
2 customers are disadvantageded.

3 So any cost impacts that are borne by the cap and
4 trade or other GHG emission reduction measures will be
5 borne by all of our customers. We're not ratepayer -- we
6 are ratepayer owned, we're not investor owned, and our
7 ratepayers directly bear those costs.

8 We strongly support the continuation of a
9 well-designed Cap-and-Trade Program and look forward to
10 commenting on that when it become -- when it comes before
11 the Board.

12 Thank you.

13 CHAIR NICHOLS: Thank you very much.

14 Betty Chu?

15 Are you here?

16 Jamesine Rogers Gibson.

17 MS. ROGERS GIBSON: Good morning, Chair Nichols
18 and Board members. My name is Jamesine Rogers Gibson, and
19 I'm a senior analyst with the Union of Concerned
20 Scientists.

21 On behalf of our 80,000 supporters in California,
22 I thank you for your continued climate leadership and the
23 staff's work in developing this draft scoping plan update.

24 In order to meet the State's climate goals, UCS
25 supports strong sector-specific policies combined with a

1 well-designed carbon price, and done so in a way that
2 minimizes negative impacts on disadvantaged communities.

3 While we support the proposed strategies -- while
4 we support the proposed scenario's overall approach, we
5 recommend the Board strengthen the plan in several ways.
6 So my comments today will focus on the electricity and
7 transportation sectors. And we plan on submitting more
8 extensive comments on the plan at a later date.

9 Thanks to SB 350, half of our electricity will
10 come from renewables in 2030, but we may need even more
11 electricity generated by renewables as opposed to natural
12 gas, in order to reach our 2030 climate goal. Given the
13 falling prices of renewable energy, and the advances in
14 grid reliability and storage, UCS recommends California be
15 ready to deploy a more aggressive strategy for renewable
16 procurement than prescribed by the RPS or assumed to occur
17 under cap and trade.

18 In addition, UCS believes fuel switching from
19 natural gas to electricity to heat air and water in
20 buildings is a cost-effective, least regret strategy.
21 Natural gas use in buildings represents 7 percent of the
22 State's current carbon emissions, so we believe the
23 scoping plan should therefore recommend that the State
24 initiate action to reduce natural gas use beyond existing
25 energy efficiency programs, particularly through building

1 electrification.

2 Vehicle electrification is also crucial for
3 meeting our climate goals, and ARB has implemented
4 ambitious programs, like the ZEV Program, to advance
5 electrification. However, the recent mid-term review of
6 the ZEV Program shows that anticipated vehicle sales for
7 2025 will fall short of the original 15 percent target.

8 The final scoping plan should be updated to
9 reflect this analysis, and a strengthen and commitment to
10 additional measures needed to stay on track for 2025, and
11 the ultimate goal of 4 million EVs by 2030.

12 In addition, self-driving vehicles offer
13 significant promise, but also potential risk in achieving
14 our climate goals. A recent study found that they could
15 reduce vehicle emissions by up to 50 percent, or they
16 could double them.

17 So we strongly encourage ARB to include a
18 near-term action to evaluate self-driving car
19 technologies, their climate impacts, and policy options in
20 collaboration with DMV and CEC, and also to identify
21 strategies to pair self-driving car technologies with EVs
22 and ride-sharings, and policies and strategies to prevent
23 negative climate outcomes from potential increase to VMT
24 from self-driving cars.

25 Thank you again for your leadership on this

1 issue, and we look forward to working with you as you
2 refine the plan and put it into action.

3 CHAIR NICHOLS: Thank you.

4 MS. MMAGU: Good afternoon, Madam Chair, members
5 of the Board, Amy Mmagu on behalf the California Chamber
6 of Commerce. We've really enjoined the robust
7 conversation this morning surrounding the scoping plan.
8 In addition, we appreciate the recognition of the timeline
9 that we have right now, and the possibility of having
10 additional comment periods. One thing that we are looking
11 for is we'll be looking forward to the additional
12 information that comes out in the economic analyses, as
13 indicated in the appendix.

14 But we would also like the ability to be able to
15 review all of the analysis for the listed scenarios within
16 the scoping plan. We note that there's a couple of
17 scenarios where there is no analysis made, and we would
18 really like to see that to help better inform us. We look
19 forward to submitting comments and we thank you for your
20 time.

21 CHAIR NICHOLS: Thank you.

22 ALTERNATIVE STRATEGIES SECTION MANAGER SULLIVAN:

23 BOARD MEMBER GIOIA: Right as the speaker was up,
24 we appreciate, an email came through, "California's
25 economy has prospered due to the State's ambitious climate

1 efforts."

2 (Laughter.)

3 CHAIR NICHOLS: Great.

4 BOARD MEMBER GIOIA: So that was good timing.

5 CHAIR NICHOLS: And was that a Tweet or was
6 that --

7 BOARD MEMBER GIOIA: It's the California -- you
8 know, it's that California Energy News listserve had the
9 article, yes.

10 CHAIR NICHOLS: Oh, okay. Good. Good. Well, we
11 heard it here.

12 Hi.

13 MS. SULLIVAN: Hi. Good morning, Madam Chair and
14 Board members. My name is Shelly Sullivan. I'm here
15 representing the Climate Change Policy Coalition. My
16 comments today are going to be very brief, but we do look
17 forward to submitting further comments, more detailed
18 comments as we move forward.

19 One of the things we really want to say is that
20 we appreciate the Board and other chair member -- Board
21 members' recognition regarding the various requests to
22 delay the actual approval of the final 2030 scoping plan.
23 We echo those requests, because we think that the
24 information that we're waiting for is very valuable and is
25 going to be very needed as we go forward in making our

1 comments.

2 We acknowledge, as staff acknowledges, that there
3 are certainties -- uncertainties that remain in helping us
4 to better inform the final scoping plan. CCPC, as my
5 colleague with the Chamber also stated, is we're
6 specifically looking for the economic analyses for all the
7 policy scenarios. We think that that's going to be a
8 piece of information that will be very helpful as we look
9 forward in making our comments.

10 We believe that the best path forward is having
11 the stakeholders being able to look at all of that as we
12 make our comments and the development.

13 So thank you, and we'll look forward to working
14 with you.

15 CHAIR NICHOLS: Okay. Thank you.

16 Hi.

17 MR. PIMENTEL: All right. Chair Nichols, Board
18 members, Michael Pimentel with the California Transit
19 Association. I think many you know about my organization.
20 We represent more than 200 transit-affiliated entities
21 across the State of California, including transit
22 agencies, original equipment manufacturers, and part
23 suppliers. Taken together, my members provide the vast
24 majority of the 1.44 unlinked transit trips taken in
25 California annually, and drive innovation in the

1 heavy-duty vehicle sector that reduce greenhouse gases and
2 improve air quality.

3 I want to start my comments today by thanking ARB
4 staff for putting forward a proposed scoping plan, which
5 advances a bold vision for achieving greenhouse gas
6 emissions -- greenhouse gas emission reductions through
7 2030. The California Transit Association enthusiastically
8 supports key elements of the proposed plan, including the
9 recommended extension of the Cap-and-Trade Program beyond
10 2020, the maintenance of the Low Carbon Fuel Standard, and
11 of course, the proposed continued investment in public
12 transit.

13 The proposed plan is rightly bullish in its
14 support for public transit and recognizes very importantly
15 that transit is not just about mobility in the
16 environment, it's about public health, the economy, access
17 to opportunity, and making good on our commitments to
18 disadvantaged communities. Investment in transit is, as
19 the proposed plan would say, a win-win strategy.

20 In the coming months as you move to adopt this
21 document, I hope you will consider and share with your
22 partners in the State legislature and the Governor's
23 office a few key points.

24 Number one, the expansion needs of public transit
25 are significant and growing. Currently, they stand at

1 about \$25 billion over the next 10 years. And even under
2 the best case scenarios, existing State, local, and
3 federal funding will be insufficient for addressing these
4 needs.

5 We know that tackling this issue head on is not
6 merely an option, it's an absolute necessity, if you're to
7 believe the California Transportation Plan 2040, if we are
8 to meet our greenhouse gas targets for 2030 and beyond.

9 With that said, we support augmenting --
10 augmenting the Greenhouse Gas Reduction Fund's existing
11 transit supporting programs, like the TIRCP and the LCTOP,
12 which have reduced greenhouse gas emissions by 4.2 Million
13 metric tons, and driven more than \$650 million of
14 investment in disadvantaged communities. And these are in
15 the last 2 fiscal years alone.

16 And number 2, I want to emphasize that mode shift
17 isn't just about expansion or innovative technologies.
18 It's about reliability, safety, and on-time performance.
19 If we, as a State, don't get serious about stabilizing and
20 identifying new revenues for operations, maintenance, and
21 rehabilitation, much of the work that you are pursuing
22 will be for not.

23 For that reason, we urge you to discuss with the
24 State legislature and the Brown administration - I
25 understand that this is largely outside of your role, but

1 the -- I want to emphasize the importance of communicating
2 to them the criticality of investing new flexible revenues
3 beyond those in the GGRF in public transit.

4 I do want to take just a few seconds to say we do
5 continue to have some concerns with the inclusion of the
6 Advanced Clean Transit Regulation under the Mobile Source
7 Strategy, that is brought into this program, and we'll
8 continue to communicate with you on that.

9 Thank you.

10 CHAIR NICHOLS: Thanks. Ms. Immel. And after
11 you, we will take a lunch break.

12 MS. IMMEL: Okay. Melissa Immel. I'm with
13 Shaw/Yoder/Antwih here today on behalf of the legislative
14 task force of the California chapters of the Solid Waste
15 Association of North America. Thank you for the
16 opportunity to comment.

17 Director Oglesby mentioned earlier the CEC's 2017
18 Integrated Energy Policy Report, and the SWANA LTF
19 supports the scoping plan's recommendation that that
20 report include recommendations for the development and use
21 of renewable gas. We'd add that we'd like to see those
22 recommendations promote renewable gas as captured from
23 landfills and derived from waste that would otherwise be
24 disposed.

25 We'd also ask that the plan identify State

1 funding sources for the public and private infrastructure
2 that's needed to implement organics disposal reduction
3 goals. And on that note, we're a bit concerned that the
4 organics diversion timelines are unrealistic. Collection
5 and processing of organics is challenging and agencies
6 need time to build their programs and facilities.

7 And while the State acknowledges the need for
8 funding and facilities, the diversion is required to occur
9 before barriers are removed. The plan also suggests
10 expanding upon diversion mandates that have not been fully
11 implemented yet. And so the LTF would ask that the State
12 allow time for existing regulations to be implemented and
13 their success measured before expanding on them.

14 Lastly, we have some policy concerns with
15 disposal-based funding, but the tip fee increase
16 anticipated by the plan would still need to be adopted by
17 the legislature with a two-thirds majority.

18 So we'll submitting written comments as well.
19 Thank you again, and we look forward to continuing the
20 conversation.

21 CHAIR NICHOLS: Okay. Thank you. We'll take a
22 break. Do you think we could get back here in a half an
23 hour, and still have a lunch?

24 Yes. Nodding.

25 Okay. We'll be back at 1:30 then.

1 Thanks.

2 Oh, there's a closed session at lunch. I'm
3 sorry. Then -- no, it's 5 minutes -- 5 minutes of
4 executive session. Five minutes of closed session. So I
5 think we can do it in a half an hour. Thank you. But we
6 will be having a closed session.

7 Thank you.

8 12:59 p.m.

9 (Thereupon a lunch break was taken.)

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1 A F T E R N O O N S E S S I O N

2 (On record: 1:45 p.m.)

3 CHAIR NICHOLS: Okay. Can I get the sound back
4 here? Yes, thank you.

5 The Board members who are still in the back can
6 hear The proceedings. We have them piped into the back,
7 but they are making their way out, so I am going to ask
8 the next witness to come forward. We stopped right after
9 number 12. So next on the list was number 13. Shrayas
10 Jatkar from the Coalition for Clean Air.

11 That is not you.

12 MR. MAGAVERN: He had to leave, so as reflected,
13 on the list there, I'll be substituting for him.

14 CHAIR NICHOLS: Okay.

15 MR. MAGAVERN: Bill Magavern with Coalition for
16 Clean Air.

17 CHAIR NICHOLS: Okay. That's fine. I can't see
18 what's behind my head, so I'm working off the old sheet.
19 Sorry.

20 MR. MAGAVERN: You have a lot skills, but that
21 one you haven't developed yet.

22 CHAIR NICHOLS: You know, my mother was a junior
23 high school teacher and she was able to convince her
24 students that she did have eyes in the back of her head,
25 but I didn't -- didn't learn that.

1 Okay.

2 MR. MAGAVERN: Well, thanks. Madam Chair and
3 Board members, good afternoon. First, I'll say that we
4 very much support the move that this plan takes with the
5 other plans you're doing this year towards an integrated
6 approach, and we encourage, wherever possible, using this
7 scoping plan and the measures that do reduce greenhouse
8 gas emissions to also seek the maximum possible reductions
9 in criteria air pollutants and toxic air contaminants.

10 So we think you've done that in a number of ways,
11 and we urge looking for more ways to do that. And I think
12 that that really is a probably the major import of AB 197,
13 which we supported. And I think that the presence here of
14 your refinery emission reduction measure does show that
15 you are already seeking to implement AB 197, and we
16 definitely support that measure.

17 Looking to the transportation sector, we think
18 there are a number of measures that you had that could be
19 strengthened, and others that we'd suggest that you add,
20 both to this plan and to the Mobile Source Strategy.

21 We think that you should be phasing in zero
22 emission technologies wherever possible for trucks and
23 buses, and the offroad sector. So we think that the clean
24 transit rule and the clean truck rule, for example, could
25 be done on a quicker timetable and with more ambitious

1 targets. And we're submitting specific recommendations on
2 these.

3 We also suggest adding measures for cargo
4 handling equipment, and agricultural equipment, and also
5 for public fleets and other regulated fleets to turnover
6 more quickly to clean technologies.

7 We very much agree that the ZEV standard should
8 be ramped up aggressively post 2025, and we support the
9 addition of a replacement tire efficiency measure as you
10 heard testimony earlier on that.

11 In the fuels area, we support the low emission
12 diesel standard, and think that that could be put on a
13 quicker timeline, and support the increase in the Low
14 Carbon Fuel Standard.

15 And finally, when it comes to transportation
16 planning, we think that the SB 375 targets in this next
17 round should be much more ambitious than the last round
18 were, and that we need to get every last bit of emission
19 reduction out of those measures in terms expanding public
20 transit, and biking, and walking through better land-use
21 measures.

22 Thank you.

23 CHAIR NICHOLS: Thank you for substituting for
24 your colleague.

25 Okay. Mr. Smith, hi.

1 MR. SMITH: Hi. I'm -- there we go. Green. Hi.
2 Adam Smith with Southern California Edison. I'd like to
3 just touch upon 3 points briefly.

4 The first is our continued support for the
5 Cap-and-Trade Program, and specifically the proposed
6 scoping plan scenario as it was laid out in the draft
7 we've just seen. You know, we also applaud ARB's release
8 of the pathways modeling data, that allowed us to get a
9 chance to kind of look under the hood and tinker a little
10 bit ourselves. And it confirmed our kind of early
11 suspicions that the Cap-and-Trade Program mixed in with
12 some of the other measures that you guys had included in
13 the discussion draft was the best policy mix going
14 forward. It further confirmed that for us.

15 The second point I'd like to touch on is Southern
16 California Edison's continued support for widespread
17 electrification. We obviously applaud the efforts to kind
18 of incentivize zero emission vehicles, in both light-duty,
19 medium-duty, and heavy-duty sectors. Southern California
20 Edison has recently put forth an application to further
21 electrification and further zero emission vehicles in many
22 of those sectors as have our sister utilities.

23 I think there is a little bit more room -- more
24 room for improvement. The proposed scoping plan makes
25 mention of the -- you know, the ARB's interest in hearing

1 comment on the possibility of going towards something
2 like, you know, 100 percent zero emission vehicles in
3 specific sectors, dates aren't necessarily included, but
4 there's a pathway there.

5 While Southern California Edison doesn't have
6 firm answers right now, I think we applaud asking that
7 question. And we want to be partners in pursuing the
8 answers with you guys. Obviously, as a large
9 infrastructure provider, we feel like we have a lot to
10 offer as far as technical expertise and discussing the
11 kind of grid implications of that.

12 Third and finally, with just a minute to go, I
13 just want to touch upon the kind of delicate translation
14 that I think has to occur between the pathways modeling
15 efforts, which end up with sort of GHG outputs for the
16 electric sector, which will then be taken by the PUC and
17 the CEC and divided up to be become LSE specific, load
18 serving entity specific, GHG emission targets.

19 There's lots of nuances. We've submitted
20 comments on this. We've been chatting with your staff
21 here, as well as some of the other agencies. One of the
22 nuances we'd at least like to tee up right now, more in
23 probably comments later, is the fact that with increased
24 electrification -- I'm not -- I don't think I'm sharing
25 anything incredibly new here, but with increased

1 electrification, you may see the electric sector's
2 emission rise, while, from a societal perspective, you see
3 transportation emissions fall.

4 And without specific -- there's a few regulatory
5 barriers we see, some of them in the Cap-and-Trade Program
6 itself, through allowance allocation, and some of it in
7 determining these GHG IRP targets. We just want to ensure
8 that there's some guard rails on there that would
9 recognize the societal emission reductions that are
10 occurring.

11 With that, I'll stop. Thank you.

12 CHAIR NICHOLS: Thank you.

13 Gary Hughes.

14 MR. HUGHES: Honorable, Board Chair, and esteemed
15 members. Excuse me. My name is Gary Hughes and I'm the
16 senior advocacy campaigner in California for Friends of
17 the Earth. We 70,000 members here in the State, 500,000
18 members throughout the country.

19 And, you know, I've heard it said that you need
20 to say probably 7 positive things to get a person to hear
21 one piece of firm feedback. I'm only briefly going to say
22 that we do very much appreciate the fact that the State
23 has taken a very public role on recognizing climate change
24 as existential threat, and there's a lot of good things
25 happening.

1 An example of the good things is the
2 international cooperation. Yesterday's Climate Change
3 Symposium was an example of that. Nevertheless, we're
4 very concerned because the actual substance of that
5 international cooperation, for instance, the desire to
6 expand California's pollution trading schemes overseas is
7 of great concern.

8 And we want to look specifically at the
9 international sector-based offsets, the international
10 efforts as they're described in the scoping plan, and
11 there's talk about tropical deforestation. Unfortunately,
12 the way tropical deforestation is described in the scoping
13 plan is it demonstrates the lack of competency amongst the
14 ARB for addressing this issue. There are very severe
15 motors of destruction that are causing tropical
16 deforestation. This not something that's just happening
17 all of a sudden, and then trading some carbon credits is
18 going to resolve.

19 As an example, let's talk about the Western
20 Amazon and Amazon crude. Now, Colombia and Peru are both
21 nations that are mentioned in the international efforts
22 aspect, which means we understand that there's a high
23 possibility that eventually that even though the linkage
24 Acre is literally a footnote in the scoping plan, there is
25 the possibility of trading credits with Peru and Columbia.

1 Amazon Watch, an organization based here in
2 California, working for more than 20 years in the Amazon
3 has recently released their Well to Wheel Report, in which
4 it has documented that of all the crude oil being
5 exploited in the Amazon, 60 percent of it is coming to the
6 United States. And of that 60 percent, 75 percent of it
7 is coming to California.

8 On average, 180,000 barrels of Amazon crude are
9 being refined here in California every day. Most of that
10 is going through one facility in El Segundo that belongs
11 to Chevron. Chevron is the number one purchaser of
12 offsets. So we are looking now at this hypothetical, but
13 possible situation in the future, where people in the
14 Amazon will be subject to the double land grab, one of
15 losing their land to oil extraction and exploitation, and
16 2, losing their land to carbon credits projects.

17 This is defined as climate colonialism for
18 California to promote a scheme that will basically put the
19 responsibility of our making changes to respond to climate
20 change upon the poorest and most marginalized people on
21 the planet. So you need to drop the REDD offsets.

22 CHAIR NICHOLS: Have you submitted written
23 testimony or do you have written --

24 MR. HUGHES: We've submitted written testimony
25 many times. Since the scoping plan only came out last

1 Friday, of course, we haven't been able to provide --

2 CHAIR NICHOLS: Yeah. No, no. I see that you
3 have not, but you --

4 MR. HUGHES: But we -- I could provide --

5 CHAIR NICHOLS: -- you've attached of the --

6 MR. HUGHES: -- you all of the letters that we've
7 provided, and the --

8 CHAIR NICHOLS: You have repeatedly --

9 MR. HUGHES: -- academic material.

10 CHAIR NICHOLS: -- spoken on the subject of
11 offsets. I get it. I thought you might have something
12 new. Thank you.

13 MR. EDGAR: Madam Chair and Board members, my
14 name is Evan Edgar --

15 CHAIR NICHOLS: It's really quite okay. We get
16 it. Okay. Thank you.

17 MR. EDGAR: My name is Evan Edgar. I'm the
18 engineer for the California Compost Coalition. I have a
19 letter and filed that I submitted today. And we support
20 the vision of AB 30 scoping plan, and it's tied to the
21 short-lived climates plan. I think he did a great job of
22 linking organics to energy and compost.

23 We have 3 missing metrics today. I want to talk
24 about working lands. Today, as a baseline, compost is
25 used on a million acres of irrigated cropland, about 7

1 million tons a year. That's today's baseline, but it's
2 not a metric. So we want to baseline that.

3 Plus, we want to double down on compost. We
4 believe we can double that by 2030 by another million tons
5 of irrigated cropland with another 7 million tons of
6 compost that would only put 22 percent of irrigated
7 croplands on compost use, but that is a huge missing
8 metric as part of the working lands.

9 We've submitted comments and participated with
10 that model, and we can double down and the compost
11 industry can use agricultural as a huge carbon sink and
12 get organics out of the landfill.

13 The landfill folks are here earlier today and
14 they tried to call a landfill a carbon sink, but a
15 landfill is a carbon toilet. And we need a tax at 10
16 bucks a ton in order to fund the compost infrastructure.
17 The landfill tip fee has been raised since 1993. It was a
18 buck 40 a ton. This is the year we kick it to 10 bucks a
19 ton to fund the compost infrastructure. We can fund it.

20 Number 2, metrics in the model is that compost
21 anaerobic digestion is the most cost effective program.
22 On table 3.3 under the different measures, under the
23 short-lived climate pollutant, if we were to add compost
24 and anaerobic digestion, it's \$9 per ton.

25 The LAO office submitted a report last year that

1 is the most effective-cost program, and on that table,
2 that metric is missing. So to get organics out of the
3 landfill, we can use the money from, not only, cap and
4 trade, but the tip fee in order to have the most cost
5 effective program to make compost and biomethane for the
6 heavy-duty trucks.

7 And lastly, what's missing is a program from 2014
8 called Net Zero for the Waste Sector. It was a key point
9 that we supported and the waste industry can be net zero
10 by 2030. In fact, many people I represent, were net zero
11 now, with zero waste, and are running our fleets on a
12 carbon negative fuel by making biomethane out of food
13 waste that comes out of landfill.

14 So it's a great report. We highly support the
15 2017 plan, the linkage to the short-lived climate
16 pollutants. Let's get organics out of the landfill.
17 Let's use compost, double down, and make agriculture the
18 great carbon sink that it should be.

19 Thank you.

20 CHAIR NICHOLS: Thank you. Hi.

21 MR. FACCIOLA: Good afternoon. My name is Nick
22 Facciola with Origin Climate. I was the project developer
23 out of San Francisco. I'd like to share some stats with
24 you that I and the other members of the Ad Hoc Offsets
25 Group have compiled. They're kind of interesting. So

1 despite the 24 officially registered projects in the State
2 of California, we account for 54 projects that are
3 reducing emissions in California. That discrepancy is
4 largely due to refrigerants that are being pulled out of
5 California and destroyed somewhere else.

6 Out of the 54 million tons of registered emission
7 reductions to date, nearly 16 million of those are from
8 California. That's nearly one-third. Slightly different
9 from the 20 percent, 80 percent split we heard earlier.

10 And then this one is really interesting. There
11 are 20 projects that are in disadvantaged communities in
12 California. But we wanted to look outside of California,
13 so we used some EPA EJ mapping tools to find that there
14 are actually 46 projects that are serving disadvantaged
15 communities across the states. That equates to about 1
16 million metric tons of carbon dioxide equivalence, or
17 220,000 vehicles taken off the road for 1 year in
18 disadvantaged communities. I believe these numbers will
19 grow over time, especially with a thriving carbon market
20 and chance for ARB to develop new and additional
21 protocols.

22 Thank you for your time.

23 CHAIR NICHOLS: Thank you.

24 MR. CARR: Good afternoon. I'm Michael Carr from
25 Shell. I thank you for the opportunity to comment. My

1 first to the Board. Compliments to the staff for a lot of
2 hard work. I'm certain they have worked very long hours.

3 I want to keep it high level today. First and
4 foremost, Shell supports mitigating the effects of climate
5 change and supports the Paris Accord and taking steps to
6 get below 2 degree C net temperature increase.

7 We do advocate market-based mechanisms as the
8 most cost effective means to achieve these goals. And you
9 have gotten, and will continue to get, a variety of input
10 today, representing a broad spectrum of perspectives. I
11 would urge the respective members of the Board to consider
12 the comments through 2 critical lenses.

13 The first lens I would highlight is cost
14 containment. A cost effective program is vital for our
15 economy. As Chairman Nichols stated in her opening
16 remarks, people are watching us worldwide. If the State
17 damages its economy, it will not inspire those watching us
18 to follow our path.

19 I think it was an important reminder from the
20 Ministry of Ontario that a market-based Cap-and-Trade
21 Program has been demonstrated as the most cost effective
22 means to achieve these outcomes.

23 The second consideration would be that a cost
24 effective program is critical for California's citizens to
25 mitigate the impact of the climate agenda, because it

1 doesn't come without costs.

2 In the executive summary, it mentions that it's
3 only a half percent impact. Dr. Bushnell reminded us it
4 could be a lot more. A half percent impact potentially
5 equates to 100,000 jobs in the State of California, given
6 the size of our workforce. So even a half percent must be
7 considered and weighed -- weighed up in the ultimate plan
8 that we choose to move forward with.

9 The second item I would highlight is around
10 program feasibility. Aspirations are great, but until
11 they're demonstrated, they're dreams. You know, some
12 technologies will not play out as we would like them to.
13 We've got to keep all technical options open. We're
14 happily playing in discussions about electrification and
15 transport. Towards the aim of keeping options open, I
16 would remind the Board that CCS is among the most
17 important of the suite of technical options to address
18 climate change. The good news is that's not a dream, but
19 a reality.

20 I'm proud to say that Shell is successfully
21 operating a facility in Alberta. In the last year and a
22 half of operation, in fact, a little less than that, it's
23 already sequestered over one and a half million tons of
24 CO2, and safely kept it out of the atmosphere.

25 CHAIR NICHOLS: That's your time. Thank you.

1 MR. CARR: Thank you.

2 CHAIR NICHOLS: Mr. Blumberg.

3 MR. BLUMBERG: Thank you, Madam Chair and good
4 afternoon, members. My name is Louis Blumberg. I'm the
5 California climate change program director for The Nature
6 Conservancy.

7 Now, more than ever, the continuity, the success,
8 and the stability of California's Climate Change Program
9 is needed, not only for the reductions it's going to and
10 continue to produce in California, but also for those
11 reductions that can leverage globally and the signal it
12 sends to others around the world in other states and other
13 countries.

14 We applaud this effort today to move forward on
15 the process. You've spent a lot of time. We've had 10
16 years of work on this, 6 years of experience. Now is not
17 the time to disrupt the momentum with a major shift. We
18 appreciate the staff work and we support the proposed
19 scenario for those reasons.

20 A scenario with the suite program, a
21 comprehensive program that includes maintenance of the
22 Cap-and-Trade Program. Now, that said, we understand that
23 there could be some conversations about fine-tuning
24 specific design elements and to determine if there may be
25 areas for improvement. And if that's so, we urge you to

1 keep a role for offsets and for linkages.

2 You heard from Prime -- Minister Murray about the
3 linkage with Ontario. The linkage with Quebec is well
4 underway. And I'll also point out that the Native
5 American tribes in California, like the Yurok, are using
6 the Carbon Forest Offset Program to generate revenue and
7 they are now reassembling their ancestral lands with that
8 revenue, so building their -- rebuilding their cultural
9 heritage with proceeds from the AB 32 program.

10 That said, you know, the maintenance of the
11 greenhouse gas program is also able to achieve significant
12 co-benefits for vulnerable and overburdened communities.
13 And we applaud those efforts to do that, and they are not
14 mutually exclusive, and we urge you to continue that
15 effort.

16 And finally, we're very pleased to see the
17 attention given to the natural and working lands sector,
18 as noted is the 5th pillar of the Governor's strategy.
19 And in there it's important to get numbers quickly. You
20 know, a plan in 2018 may be too long, so we need to -- we
21 want to help you achieve those numbers, go through that
22 analysis more quickly. And we're happy to help in any
23 way.

24 And thank you for your attention.

25 CHAIR NICHOLS: Thank you.

1 Ms. Roberts.

2 MS. ROBERTS: Good afternoon, Madam Chair and
3 Board. My name is Tiffany Roberts from the Western States
4 Petroleum Association. And I thank you for having us here
5 today and allowing us to comment.

6 First, let me just say that on behalf of the
7 petroleum industry, we're very proud of what we do, what
8 we do day in, day out. And what that is, we help people
9 move around the world. We help moms and dads get their
10 kids to school. We help families get to work. We help
11 parents get their kids to soccer practice and piano
12 lessons. We help folks get their aging parents perhaps to
13 a doctor's appointment or to pick up their medicine. So
14 we are very proud of what we do, and we hope that we can
15 continue to do it, both here in the State of California
16 and around the world.

17 Because of that, we also think that it's very
18 important that as we move into this next stage of
19 developing the scoping plan, that there continues to be a
20 very, very good focus on cost effectiveness.

21 We were happy that the staff, as part of the
22 economic analysis, developed an Alternative 3 and an
23 Alternative 4 of that analysis, looking at an all
24 Cap-and-Trade Plan, as well as a cap and tax plan.

25 We do, however, want to point out that within the

1 economic analysis, unfortunately the results of
2 Alternative 3 and Alternative 4 were not released, so we
3 got the proposed plan. We got Alternative 1 and we got
4 Alternative 2, but we'd like to see the other results of
5 the studies. We think they're important.

6 As my colleague from Shell mentioned, Mr. Carr,
7 you know, it looks in these numbers to be kind of a
8 sterile statistic. But when you think about it, 100,000
9 jobs, if you're one of those people, that's very
10 important. Again, that means that you no longer have a
11 way to necessarily put food on your table.

12 And so to the extent that we're deliberating
13 about a post-2020 scenario, we want to make sure that all
14 of the information is on the table, so that you as
15 policymakers are able to deliberate and figure out
16 the best path forward.

17 So with that, thank you for the comments, and we
18 look forward to talking with you more in the future.

19 BOARD MEMBER GIOIA: Can I -- can I ask a
20 question?

21 MS. ROBERTS: Sure.

22 CHAIR NICHOLS: Yes.

23 BOARD MEMBER GIOIA: So would you like to sort of
24 explain further WSPA's thinking on extension of cap and
25 trade?

1 MS. ROBERTS: Yeah, I mean, you know, in the
2 State of California we certainly recognize that we're
3 going to have climate policy here. And so we support a
4 market mechanism. Obviously, in California we've got a
5 Cap-and-Trade Program.

6 And so to the extent that we can have a
7 consumer-friendly Cap-and-Trade Program post-2020 that
8 contains a number of different cost control mechanisms, we
9 definitely welcome that conversation. And so we'd love to
10 continue to have that conversation with you.

11 BOARD MEMBER GIOIA: Thank you.

12 VICE CHAIR BERG: Good afternoon, Scott.

13 MR. HEDDERICH: Good afternoon. My name is Scott
14 Hedderich. I work for a company called the Renewable
15 Energy Group. We are North America's largest biomass
16 based diesel manufacturer. We are third globally behind 2
17 companies. I can't even think of their names, based in
18 Europe.

19 (Laughter.)

20 MR. HEDDERICH: I want to comment on 3 things
21 real quickly.

22 First off -- and it's a little bit funny that
23 Chair Nichols has stepped out. So the discussion on the
24 comments that were made earlier this morning around
25 listening and around trying to find what it is that are

1 concerning to other stakeholders and other communities,
2 very powerful. And the fact I think everyone on the Board
3 is on the same page with respect to wanting to be in that
4 is a great thing. I think that -- and by that, I mean
5 listening -- is something that's not in every capital in
6 our country today.

7 But I'll segue from listening to talk about how I
8 think the staff has been done a wonderful job in listening
9 to stakeholders. This is a good document. Is it perfect?
10 No.

11 I think that the process that you laid out will
12 refine it to make it much better. But it's critical we
13 don't let the perfect be the enemy of the good and we move
14 forward.

15 And since I mentioned Washington D.C. and their
16 incapability of listening, I'm going to segue to
17 Washington D.C. and consistency. It's not there right
18 now. So it's very important that this document and what
19 the Board does with respect to climate change and the
20 programs that are within it, that there's a clear document
21 path forward. I mean, there's a great track record going
22 back almost 10 years. It's critical to stay on that, and
23 to be, as I think other folks said, a bit of a shining
24 light for others, whether it's our nation's capitol or
25 folks in Canada or where have you.

1 And lastly, I just -- I want to point out one
2 thing with respect to the biodiesel industry. We think
3 again it's a good document, but there's one area we think
4 that could be a little bit more aggressive within the LCFS
5 targets moving to 18 percent. We think that could go
6 higher, 20, 22 percent by 2030, especially given the
7 slow -- and I'll say it again slower, slow -- development
8 of electric vehicles in the heavy-transportation market.

9 There's an opportunity here in this document to
10 set out a good target. Our industry needs that landmark,
11 if we're going to deploy capital. We're certainly not
12 seeing any clear beacons out of Washington. So for that
13 to come out of California is helpful.

14 Thank you.

15 VICE CHAIR BERG: Thank you. Hi, Jon.

16 MR. COSTANTINO: Hello. Thank you for having me.
17 This is Jon Costantino. And today, I'm here on behalf of
18 the Offsets -- Ad Hoc Offset Group, a group of 13
19 developers responsible for over 50 million tons of real
20 and quantifiable reductions.

21 Today, we've heard short-lived climate pollutants
22 need to be controlled. We need real reductions. We need
23 cost effective reductions. We need working lands to be
24 addressed. We need methane to be addressed. We need
25 climate leadership. We need things that extend past our

1 borders. We need incentives for private capital.

2 And when you think about an offset, you go check,
3 check, check, check. All those things are true. And so I
4 just wanted to briefly note that we're pleased to see on
5 the staff's presentation that cap-and-trade with 8 percent
6 offset is what's being proposed. And we understand that
7 one of the options is to look at offsets and their value.

8 And we get that Chair Nichols in the beginning
9 said new science, new evaluations, and we're not against
10 that. We just want to make sure that it's not just a
11 one-way direction. I think the scoping plan said the only
12 option would be to reduce. And I think there's options to
13 think about how they could benefit local communities. It
14 depends how the program is written, but I just don't want
15 to focus on only a one-way direction on the evaluation. I
16 think if you're going to look at it, you should look at it
17 holistically.

18 But for all those reasons, you know, we're happy
19 to answer any questions. And I know there's going to be
20 some more discussion about offsets, and we look forward to
21 engaging in that dialogue.

22 Thank you.

23 VICE CHAIR BERG: Thank you.

24 MR. SHAW: Thank you, Chair Nichols and members
25 of the Board. Michael Shaw with the California

1 Manufacturers and Technology Association. We represent
2 the interests of roughly 30 plus thousand manufacturers in
3 the State of California who employ 1.2 million
4 Californians in the State.

5 One of the things that we know about
6 manufacturing is that we have seen a -- continue to see
7 some growth in the manufacturing sector in California, but
8 we know that there is a much slower rate of growth in
9 California than there is elsewhere. In fact, it's about
10 2.6 percent of manufacturing job growth from 2010 to 2015
11 has occurred in California, or that's been the rate of
12 growth here.

13 It's 7 percent on the national average. So we're
14 growing, but we're growing slower than other parts of the
15 country are, and so there's an opportunity for California
16 to grow at a faster rate, and to create a lot of good
17 paying jobs. In fact, the average manufacturing wage in
18 the State of California is \$83,000 per year.

19 But to specifically the scoping plan, the
20 discussion this morning, there were a lot of -- there was
21 a lot of discussion earlier in the day with about research
22 and the need for more research and data. And we would
23 agree that there's certainly always going to be more.
24 There's always going to be more opportunity for better
25 data, for more complete data to fill out holes that we see

1 in the data and the research that exists today.

2 And we can't wait necessarily for everything, but
3 I would encourage you strongly to wait for the information
4 that you have already promised the public and requested
5 yourselves from staff and from other researchers.

6 So whereas you can't get perfect, you can get
7 what you've asked for, and that is certainly something
8 that would help inform the decisions that you are about to
9 make that will significantly influence the California
10 economy.

11 Additionally, the data regarding the economic
12 analyses for Alternatives 3 and 4 in the scoping plan, we
13 would like to see those as well. And I actually had a
14 question that maybe you can answer now or at a later date,
15 but have the economic reviewers seen that economic data as
16 well, those analyses that were not released to the public?

17 Then the last piece regarding cap and trade
18 specifically, we believe that this is the most cost
19 effective way to reach that goal. The flexibility that
20 exists in the Cap-and-Trade Program provides the option
21 for California manufacturers to seek an affordable way to
22 reduce their emissions or to account for those emissions,
23 which is a part of a global challenge that we are facing,
24 not necessarily a specific California challenge.

25 As we've all heard many times before, we

1 represent a fraction of the global emissions, so we cannot
2 certainly fix the entire problem by ourselves, but if we
3 proceed in a way that provides both environmental
4 benefits, as well as economic success, we can be a leader
5 for public policy around the country and around the world.

6 Thank you.

7 VICE CHAIR BERG: Great. Thank you. I have one
8 question. What source do you cite for that \$83,000 a year
9 on average for manufacturing?

10 MR. SHAW: U.S. Department of Labor statistics.
11 And we can provide that to the Board members and to the
12 staff as well.

13 VICE CHAIR BERG: Thank you. I'd appreciate
14 that.

15 MR. SHAW: Will do. Thank you.

16 VICE CHAIR BERG: Thank you.

17 Good afternoon.

18 MR. GARDNER: Hi. My name is Ryan Gardner. I'm
19 with Rincon Consultants. And I'm going to kind of
20 represent myself as the climate action planning community.
21 The scoping plan is an important document for Climate
22 Action Planning. And strengthening the connection between
23 the scoping plan, local plans, and CEQA would help clear
24 up a lot of uncertainty surrounding the impacts of SB 32
25 on a local and project LEV.

1 And there are a few actions by which we think
2 that this could be addressed. First, a per capita goal of
3 6 metric tons by 2020 -- or 2030 and 2 metric tons by 2050
4 has been specified in the scoping plan. But then it's
5 suggested that a per service person threshold may also be
6 acceptable for local jurisdictions. However, no
7 quantitative thresholds were given for a per service
8 person emission threshold.

9 Climate action planning practitioners can
10 calculate this number on our own. But having it in the
11 document itself would be helpful for setting policy when
12 we're working on local plans.

13 Secondly, it appears that the scoping plan
14 actions will achieve a 40 percent reduction below 1990
15 levels per capita goals set for local districts -- or the
16 per capita goal for local districts will also achieve a 40
17 percent reduction. So it seems like there may be some --
18 at least some double counting between those two.

19 So a clarification on what the fair share of
20 local governments would be and what would actually make a
21 qualified -- a Climate Action Plan a qualified greenhouse
22 gas reduction goal. And this goes back to kind of
23 strengthening these linkages between the scoping plan and
24 CEQA.

25 And lastly, the greenhouse gas significance

1 analysis for CEQA has kind of been all over the Board.
2 And different jurisdictions have employed a vast variety
3 of quantitative thresholds. So setting a quantitative
4 project level threshold per different development sector
5 or land-use type would really help the State and all of
6 the CEQA planners, and practitioners, and these local
7 projects, or local programs, climate action plans
8 specifically set goals that are consistent with SB 32 and
9 take out a lot of the guesswork that we're currently
10 having to do.

11 Thank you.

12 VICE CHAIR BERG: Thank you very much.

13 MR. LEVINE: Thank you, Madam Vice Chair,
14 members, former colleagues. I am former Assembly Lloyd
15 Levine. I'm here today representing the California
16 Emerging Technology Fund.

17 I want to talk to you about something that
18 sometimes sounds a little bit like a Ginsu knife, but
19 that's broadband as a green strategy. And I will admit
20 myself I was a little bit of a skeptic of that as well
21 when that concept was first proposed to me, but have since
22 come to embrace it and understand how broadband technology
23 encompassed in the scoping plan can be part of
24 California's green strategy.

25 And I'll simply say this, as a former PUC

1 Commissioner put it to me recently, you can't have the
2 Internet of things without the Internet. We currently
3 have 30 percent of Californians without meaningful
4 broadband access. The mission of CETF is to bridge the
5 digital divide. One of the ways we do that is to leverage
6 existing entities and organizations to foster greater
7 deployment of broadband, recognizing that helps the state
8 and helps us achieve our mission.

9 Broadband, in and of itself, is not a solution,
10 but an enabling technology. What I'm talking about is the
11 old axiom of if you teach a person to -- if you give a
12 person a fish, they'll eat for a day. If you teach them
13 to fish, they'll eat for a lifetime. You can take
14 somebody to the library and let them use a computer. By
15 fostering greater broadband development, it allows
16 solutions to penetrate throughout California.

17 I'm talking about deployment into rural areas,
18 where currently less than 50 percent of rural communities
19 have access to the Internet. I'm talking about remote
20 control of water facilities, remote control of energy
21 facilities, real-time communication between facilities so
22 that we can manage our infrastructure and utilize our
23 resources in a greater way. I'm talking about the
24 transportation sector, where we are only just on the cusp
25 of realizing smart technology and smart cars.

1 But when we have a system of smart cars that talk
2 to each other, millions of cars on the road in California
3 that talk to each other, that talk to the road, that talk
4 to sensors under the road, that talk to our streetlights,
5 we're going to need bandwidth like we've never seen
6 before.

7 But we have the ability in doing that to
8 recognize an amazing amount of efficiency and greenhouse
9 gas savings through intercoordination between
10 transportation systems, between systems at our ports,
11 between systems at our utilities.

12 So I could go on, and I see my time is running
13 out. I have a number of different examples here. We've
14 submitted testimony via piece through Valley Vision that
15 we commissioned on various ways. We will submit
16 additional written testimony. But I encourage you, as you
17 review the scoping plan, and revise it, please consider
18 the fact that we need broadband to enable so many of these
19 solutions and technologies that we're talking about.

20 For example, if 10 years ago I had referred to
21 something as a nest, you would have thought I was talking
22 about what a bird sleeps in. Now, I'm talking about a
23 thermostat, but I'm talking about a thermostat that talks
24 to my cell phone, that I can control from somewhere else.

25 The types of technology that we're going to see

1 in the future are going to make the Nest thermostat look
2 like child's play. So I encourage you in the revision to
3 please incorporate broadband as a significant part of the
4 solution.

5 Thank you.

6 VICE CHAIR BERG: Thank you.

7 Good afternoon.

8 MR. FOSTER: Good afternoon, Board members, Chair
9 Nichols, in her absence, and staff. My name is Quentin
10 Foster. I am the director of climate and energy for
11 California for the Environmental Defense Fund, and
12 appreciate the opportunity to extend some comments.

13 First, I would like to extend an appreciation and
14 thanks to the staff for their very diligent work. It is a
15 complex task of incorporating a very diverse set of
16 perspectives into a proposal, but I think that they are
17 doing a very good job of being as inclusive as possible
18 under the leadership of Director Corey. So thank you.

19 I would also like to extend a thanks and
20 appreciation to the EJAC Committee for their presentation,
21 and providing a perspective that is critical and important
22 to ensure that we are looking at climate policies that
23 will benefit all Californians as we move forward. So
24 thank you to them, even in their absence.

25 EDF is here, however, to support staff's proposed

1 scoping plan scenario, which includes cap and trade and a
2 suite of additional measures that will improve
3 California's environment, reduce local climate pollution
4 impacts, all while recognizing and incentivizing job
5 growth from protecting the California economy is critical.
6 While there's always room for improvement, EDF believes
7 that cap and trade is an important part of California's
8 climate package.

9 I's like to underscore a point that Minister
10 Murray made earlier with reference to cap and trade as one
11 of the most effective ways for California to partner with
12 other like-minded, ambitious, climate-leading
13 jurisdictions, which I think we will all agree is more
14 important and critical for our efforts moving forward.

15 For many of those sectors, the Cap-and-Trade
16 Program represents the first time that their carbon
17 pollution has been regulated and has had a cost. The
18 benefit of creating that reduction incentive is an
19 important one, and so is providing some flexibility and a
20 cost effective way to achieve our climate goals. And,
21 yes, we need to consider all of the costs, including
22 health and social cost, when we think about what is cost
23 effective.

24 It is clear that too many communities in
25 California continue to face serious air quality problems.

1 And we know these impacts are disproportionately affecting
2 low-income communities, and communities of color.

3 I am confident, however, that your very capable
4 staff will be able to find not an "either/or" approach,
5 but an "and" solution, one that incorporates the benefits
6 of cap and trade, but also addresses the real need to
7 reduce local pollutants in communities.

8 We look forward to continuing to work with you,
9 the Board, the legislature, and engaging in a constructive
10 dialogue with our environmental justice colleagues and
11 those in this room who represent the range of stakeholder
12 perspectives on these issues.

13 Thank you for your time and look forward to the
14 continued conversation moving forward.

15 VICE CHAIR BERG: Thank you for your comments.

16 MS. VAZQUEZ: Good afternoon, Chair and Board
17 members.

18 VICE CHAIR BERG: Good afternoon.

19 MS. VAZQUEZ: My name is Diana Vazquez. I'm here
20 on behalf of -- representing California Environmental
21 Justice Alliance. And as we heard earlier from the
22 Environmental Justice Advisory Committee, there was a lot
23 of recommendations that were seeing said, and we fully
24 sport those recommendations. We also understand that your
25 staff and the Board has been really working hard on really

1 trying to really understand our concerns, and how we can
2 integrate them.

3 We have a couple issues that we still have
4 concerns with. The draft, specifically as most of you
5 know, that we at CEJA put out a report last fall,
6 specifically by Manuel Pastor. And we feel that a lot of
7 the -- at least ideas and some parts were not included in
8 the draft, specifically some of the parts of the scoping
9 plan, including the industrial section does not -- it
10 contradicts the preliminary findings that show a
11 connection between PM2.5 and greenhouse gases.

12 Second, there's no discussion of the significant
13 findings of concern regarding the overreliance of offsets
14 within the current system.

15 And then third, there's no discussion in the
16 document about corresponding to make air pollutant data
17 more available to the public as directed by Assembly Bill
18 197 that was passed last year.

19 Another issue that we have is really having a
20 robust sense of all the alternatives, specifically the
21 last alternative, the cap and tax. We just feel, as other
22 individuals have indicated, there's not really enough data
23 for us to really get a sense of all of the alternatives
24 and how do we weigh them with each other, given that some
25 alternatives have more data, more information than the

1 other alternatives.

2 So for us to really use those alternatives as a
3 way to actually get a sense of what's the mechanism we're
4 going to be moving forward, we need to get a more robust
5 sense of Alternative 3, and specifically Alternative 4.

6 And lastly, really including a little bit more
7 information on Assembly Bill 187. I know the bill just
8 passed last August, and it was just enacted this year.
9 But one of the things is we really want to get a sense of
10 really the language that indicates where can we see direct
11 and prioritizing emissions of really looking at direct
12 greenhouse gas reductions, and looking how is that going
13 to work, with including all stationary sources, not just
14 refinery, as the plan indicates, but also including mobile
15 sources.

16 And lastly, we really just want to say we look
17 forward to working, and honestly just the conversation of
18 how we can actually have a separate meeting of really
19 discussing some of these really critical issues that are
20 affecting our populations. We have seen this over and
21 over kind of being played out throughout the year, but
22 just getting a sense from the Board just with Chair
23 Nichols saying that you all want to have a meeting, a
24 separate meeting, to really just discuss these issues
25 gives a sense of really working collaboratively on this

1 approach, and really look forward on how do we actually
2 get to where we need to get to the final scoping plan.

3 So thank you.

4 VICE CHAIR BERG: Thank you.

5 MR. SKVARLA: Mikhael Skvarla on behalf of
6 California Council for Environmental and Economic Balance,
7 We're a business/labor coalition supporting a better
8 environment and strong economy.

9 Initially, I just wanted to express our support
10 for the market-based mechanism of cap and trade that's
11 included in this plan. While the scoping plan is not
12 perfect, we expect it to continue to work with the Board
13 and staff to hone in on something that gets California to
14 its 2030 goal, with that inclusion of a Cap-and-Trade
15 Program that has been supported by the legislature and
16 will continue to be supported by the administration, I
17 think, moving forward. And we'll see that debate play out
18 in the next few months and through the end of this
19 session.

20 We want to specifically kind of address some of
21 the things that have been brought up today in and around
22 some of the studies that have been cited and as well as
23 the 197 comments.

24 Specifically, the USC study that Kirchner -- that
25 was just mentioned a few moments ago and it was mentioned

1 earlier in today's testimony, I kind of wanted to indicate
2 that in the conclusion statement it does say further
3 research is needed before firm policy conclusions can be
4 drawn from this preliminary analysis. I just want to
5 highlight that. Until this study is complete, the Board
6 should probably reserve taking action on anything too
7 extreme.

8 Also, the CEC last year -- or in 2015 during the
9 IEPR discussions, there was a UCI study that indicates due
10 to California's rigorous local rules on criteria
11 pollutants and air toxics, there's not that one-to-one
12 correlation with greenhouse gas reductions, and sometimes
13 it's inverse.

14 So sometimes you could reduce NOx and increase
15 greenhouse gases. It's not as clean as we'd like it to
16 be, especially because of how strict California is,
17 especially in those heavily regulated basins, where most
18 of Californians are, South Coast, Bay Area, or San
19 Joaquin.

20 And so with that in mind, trying to get a
21 greenhouse gas policy, such -- you know, the scoping plan,
22 and specifically cap and trade, to do something that
23 they're not really designed to do is going to always kind
24 of run us into that problem, that we're not going to get
25 the results that we want. Because they're good at

1 reducing greenhouse gases, but they may not be great at
2 reducing criteria pollutants, which is why we have those
3 local rules at South Coast, and Bay Area, and San Joaquin
4 and all the air districts.

5 And I think, you know, Placer brought it up -- or
6 Placer APCO brought it up -- the APCO brought it up, black
7 carbon from forest fires is a huge health issue, and we
8 don't currently address that. And I think that's a place
9 for exploration and obviously staff has looked into it.

10 And as things move on, hopefully we can continue
11 to examine that as a piece of this puzzle, because that is
12 a place where we can truly make an impact, and it's kind
13 of outside of the scope of things that we currently do
14 that's not regulated at the local level or per se, other
15 than with the fireplace rules and things like that.

16 So appreciate your time. Thank you.

17 VICE CHAIR BERG: Thank you.

18 Hi, Brent.

19 MR. NEWELL: Good afternoon, Madam Vice Chair,
20 how are you?

21 VICE CHAIR BERG: Fine. Happy New Year.

22 MR. NEWELL: Thank you. You too.

23 It's great to be here today. And I was really
24 enjoying the tone and atmosphere from the Board and from
25 staff while the presentation was happening, while the EJAC

1 was giving its recommendations. It's so different than
2 what was happening 10 years ago when the Board first
3 started implementing AB 32.

4 Many of you on the Board weren't here. And there
5 was actual -- you know, the EJAC had such frustration in
6 their recommendations being ignored back then. They were
7 denied resources and data to do their job.

8 It's totally different this time around. You
9 know, the EJAC is getting resources. It's making these
10 recommendations, which we join. But I'm a little
11 discouraged at the actual policy in the draft plan that's
12 come out. That seems to not be very congruent with where
13 the EJAC is coming from. And it gives me a little
14 concern. It makes me wonder whether EJAC is at the table,
15 but still on the menu.

16 It's important that we do this meeting that
17 you're talking about, this kick-off-the-shoes meeting that
18 the Chair suggested, to take these recommendations to
19 heart, really, really do a good job in evaluating these
20 alternatives, because last time around there was no real
21 consideration of the alternative carbon tax policy.

22 This time around you should do it. You should do
23 a real, good faith, reasoned analysis of that strategy. A
24 carbon tax provides emissions certainty when combined with
25 a cap, and the AB 197 direct reductions that are required,

1 and the Board's duty to revisit how we're progressing
2 towards that 2030 target.

3 You're going to do another scoping plan in five
4 years. So all of that combined provides an excellent
5 regulatory system to ensure emissions certainty.

6 A carbon tax also provides price certainty and
7 revenue stability. Right now, you're 1250 a ton. Who
8 knows where you're going to be. That's not the price
9 that's needed to drive down reductions period. We all
10 know that.

11 There's also different revenue allocation
12 options, like the Just Transition Fund that Board member
13 Gioia mentioned. There's dividend to help low income
14 consumers adapt to reduced or increased costs.

15 I want to address Board Member Mitchell's comment
16 about anaerobic digesters in the valley. Those that
17 produce electricity are 20 times more pollutant intensive
18 than a natural gas fired power plant. That is not the
19 solution that valley communities need. Pasture based
20 dairy operations reduce methane, sequester carbon, like
21 the person from the Natural Resources Agency was talking
22 about with the Wildlands Program. It's important to get
23 solutions that work and not make things worse.

24 That's why a carbon tax is important. That's why
25 pasture based dairy operations are important. That's why

1 really listening to the EJAC is critical.

2 So I want to thank you. I look forward to
3 working with staff, and I hope that we're not on the menu
4 this time.

5 VICE CHAIR BERG: Thank you very much.

6 MR. NEWELL: Thank you.

7 MR. JACKSON: Good afternoon, Board. Alex
8 Jackson with NRDC. I'd like to echo the sentiment we heard
9 from Mr. Newell. No one should be on the menu in
10 California at this. If there was ever a cause for unity
11 in the face of more pernicious foes, I think we are in it.

12 I'd like to speak in support of the proposed
13 strategy today. And to do so, I'd like to just begin by
14 acknowledging the passing of a real legend this morning,
15 with the death of Art Rosenfeld, who was truly the
16 Godfather of energy efficiency.

17 And for an organization whose institutional
18 priority has been promoting and capturing all cost
19 effective energy efficiency I would be remiss not to. And
20 I want to just invoke a remark he made, that I think is as
21 timely and sage today as it was back then. After the
22 passage of AB 32, when he was a CEC Commissioner, he was
23 asked when should we expect reductions from this new law
24 to take effect? And he answered 1973, which is, of
25 course, when California began implementing the first

1 appliance energy efficiency standards, building efficiency
2 standards.

3 I think it just reminds us all that a lot of the
4 foundational policies that this State has pursued to
5 reduce emissions, carbon intensity of our economy date
6 back decades, and will continue to be the foundation of
7 our policy moving forward.

8 So as we debate our carbon pricing mechanism, I
9 just want to remind the Board that so much of our progress
10 has been the so-called complimentary policies are truly
11 our foundational policies, and that I think we should
12 check our expectations about how much we want to get out
13 of one policy that is designed really to just put a price
14 on the emissions We know we need to discourage.

15 But in that spirit, I would like to encourage the
16 Board and staff to not overly rely on that mechanism
17 moving forward to close the gap towards our 2030 target.
18 And specifically, I want to highlight the building sector,
19 which already is on par with in-state power generation, in
20 terms of its emissions, but lacks a comparison -- a
21 comparable policy framework to ensure that those emissions
22 fall over time.

23 And our concern is that a lot of the barriers
24 that that sector faces, as we heard from Dr. Bushnell, you
25 know, those are market barriers that aren't going to be

1 too responsive to a price signal alone. And I think to
2 inspire this sort of market transformation, we need to see
3 to stay within our long-term carbon budget in efficient
4 electric technologies, in sustainably sourced renewable
5 natural gas. We'd like to see the final revised draft
6 include more of an emphasis on those targeted reduction
7 strategies in the preferred scenario, and not simply in an
8 alternative.

9 But on that note, I thank the work of the Board
10 and staff, look forward to working together.

11 CHAIR NICHOLS: Thank you. Before the next
12 witness comes up, I just want to point out that we're
13 getting close to the end of our list. If anyone has not
14 signed up and is planning to speak, or thinking about
15 speaking, please sign up now or we're going to close the
16 hearing when we finish with number 40.

17 Okay.

18 MS. BUSSEY: Okay. Good afternoon, Madam
19 Chairwoman and Honorable Board members. My name is Julia
20 Bussey, and I work for Chevron Corporation. I have 3
21 points and requests that I'd like to share with you.

22 I'm going to short-circuit some of my testimony,
23 because it repeats what other people have said, and I
24 trust that you will believe that I have a rationale behind
25 what I'm asking for.

1 Okay. First, I'd like to thank staff for adding
2 some scenarios to the draft scoping plan, but I would like
3 to ask that we explore the economic impacts from those
4 scenarios. This is something other parties have asked
5 for, and I think it's very important that we all
6 understand economic impacts.

7 Secondly, I would like to talk a little bit about
8 cap and trade. The cap-and-trade measure requires direct
9 reductions for 92 percent of its emissions and up, and
10 can, in fact, include more. In this scoping plan, that
11 would be a 175.7 million metric tons. Cap and trade does
12 require direct reductions from sources. And we know that
13 it has to be from the larger sources, because even if you
14 added and eliminated all of the small sources, you could
15 never get 175.7 million metric tons from those sources.

16 So we're a little bit troubled by the fact that
17 in the scoping plan, it states that the refinery measure
18 is the measure that really addresses direct reductions.
19 And we believe that, and, in fact, ARB has stated that the
20 cap and trade requires direct reductions as well, and we
21 think is more effective.

22 We're also very concerned about that refinery
23 measures target, the 20 percent, because it's really not
24 founded on any specific data. It's not founded on any
25 background. And we understand that, you know, you've

1 stated that not everything that's happening today will
2 necessarily happen in the future, but we think that the
3 investment signal that you send to the investors does
4 matter, and we are concerned about the amount of
5 investment that's taking place in California.

6 The refinery sector is 50 percent -- is the
7 largest sector of manufacturing in California. So we
8 think that this is concerning.

9 And then lastly, although the scoping plan states
10 that it addresses leakage, we believe that the leakage
11 analysis, which allows for a 7 percent reduction in any
12 sector prior to industry assistance is really flawed.
13 Seven percent is equal to the Great Recession. California
14 lost a million jobs in the Great Recession. We do not
15 think that this kind of sacrifice is appropriate prior to
16 considering leakage treat -- you know, industry
17 assistance.

18 So that really concludes my comments, unless any
19 of you have any questions.

20 Thank you.

21 MS. HOLMES-GEN: Great. Madam Chair and members,
22 Bonnie Holmes-Gen with the American Lung Association in
23 California. And the American Lung Association proudly
24 supports our 2030 and 2050 greenhouse gas goals as
25 critical public health measures. And we're pleased to be

1 here once again to work with you in developing this
2 critical plan, which this plan builds on the history of
3 California's leadership and broad public health and
4 community support for fighting climate pollution.

5 And we strongly believe that California must
6 continues leading the way in transforming vehicles and
7 fuels and tackling both our climate pollution and criteria
8 pollution problems at the same time. And clearly,
9 improving public health has to be a key element of this
10 plan. We're pleased with the discussion today about
11 further analyzing the public health impacts from these
12 scoping plan measures, and making sure we're playing --
13 placing the highest priority on measures to -- that will
14 get highest community health benefits.

15 We -- we'll provide some more comprehensive
16 comments as we go forward, but I wanted to raise a couple
17 of key points. I'm not seeing my time here, so I just
18 wonder if the clock is on. I have two minutes.

19 CHAIR NICHOLS: Over there.

20 MS. HOLMES-GEN: Thank you. Okay. We're --
21 first of all, we're looking for strong -- stronger
22 correction in this plan on how to achieve deeper
23 reductions in the transportation sector. We, of course,
24 strongly support our core transportation and vehicle and
25 fuels programs, LCFS, ZEV, sustainable freight, and

1 others. And we appreciate the strengthen, but we would
2 like to see how we can go further and speed up the pace of
3 electrification, especially in the heavy-duty sector, look
4 at more robust LCFS targets behind the 18 percent, and
5 accelerate our measures at ports, railyard, and other hot
6 spots.

7 But I wanted to chat about sustainable
8 communities for a moment. Lots of discussion today. This
9 is a critical part of the scoping plan, a difficult and
10 challenging part. We recommend you take some time to
11 consider how to Step up the Board's work and focus in this
12 area, in collaboration with local governments, air
13 districts, and regional agencies.

14 So this involves careful consideration of how
15 we're going to achieve the 7 percent VMT reduction that
16 was discussed earlier that's embedded in the plan. It's
17 embedded in the 2030 targets, but we don't have a clear
18 path to get there.

19 Finalizing the regional targets is an important
20 piece of this in getting a clear read on how far the
21 targets can take us toward this goal, but there's some
22 other underlying issues that I think that you should
23 address. I encourage you to go deeper and look at some of
24 the obstacles that we face in California to achieving
25 these targets, specifically funding and lack of sufficient

1 State and local funding for building sustainable
2 communities with more transportation choices.

3 Take a look at more clearly, and maybe this can
4 be done in the kicking-off-the-shoes session. You know,
5 some of the road blocks to funding for local 375
6 strategies that have been faced by the regional MPOs.
7 Look at what actually is the amount that's needed, how
8 much funding is needed to support these local efforts, and
9 how could that funding be provided? Could this plan make
10 a stronger statement about the need to work more closely
11 with within the Governor's office, SGC and other entities
12 to realign existing state funds in identifying new --

13 CHAIR NICHOLS: Okay. Your time is up, Bonnie.

14 MS. HOLMES-GEN: I know. Thank you for the time.

15 CHAIR NICHOLS: If you don't take a breath, it
16 doesn't stop the clock.

17 (Laughter.)

18 CHAIR NICHOLS: It doesn't work. Thank you. We
19 appreciate your testimony.

20 Okay. Hi.

21 MR. WIRAATMADJA: Hello. Good afternoon, Madam
22 Chair and members of the Board. Vincent Wiraatmadja here
23 on behalf of BYD Motors. It's been a long day. I'll keep
24 my comments brief and follow up with written material.

25 BYD is supportive of the proposed scoping plan

1 and the existing commitments, especially with the cap and
2 trade scenario. We do want to highlight, however, our
3 support, especially for the actions focused on heavy-duty
4 vehicles, which represent 7 percent of the State's
5 greenhouse gas emissions, even though they are -- only
6 make up 7 percent of the State's vehicle population. They
7 also emit 33 percent of the State's NOx and 40 percent of
8 PM.

9 These strategic regulations focused on heavy-duty
10 vehicles will be critical to achieving the goals in the
11 scoping plan, especially hitting the 2030 targets,
12 providing air quality co-benefits as noted with the
13 emissions rates on PM and NOx, and direct reductions from
14 mobile source. It's important that these actions receive
15 the Board support. And it's also important that the Board
16 remember that in considering these proposed regulations,
17 that SB 350 and the advice letters coming out from the
18 IOUs take a critical piece, the infrastructure piece, and
19 make it more palatable.

20 So we hope you keep that in mind as we move
21 forward with the implementation of the scoping plan.

22 Thank you so much for your time.

23 CHAIR NICHOLS: Thank you.

24 MS. NAGRANI: Hello, all. I'm Urvi Nagrani from
25 Motiv Power Systems. And I just wanted to make a couple

1 quick points. One, timing is essential. You keep hearing
2 wait, wait, wait from people who are asking for more data
3 or let's look at the economic impacts. And the people who
4 are saying wait have the most to gain from the status quo.
5 They're the oil companies who have the most to gain, and
6 they're stakeholders who have had their voices left out
7 and need time to get established.

8 Both of them have different reasons for wanting
9 that. But when Chevron or Shell, who've before around for
10 over 130 years, say wait, it's enough time usually to kill
11 off smaller companies that are providing the sustainable
12 alternatives that will not exist in 5 years if you keep
13 waiting. So urgency is important.

14 The other thing is for stakeholders to actually
15 have a voice at the table. Their organizations need to be
16 respected, they need to know each other, they need to know
17 which organizations have efficacy in which areas, and that
18 does take time.

19 But we cannot wait to take action until everybody
20 is there. So we need to start taking action, and as we
21 build, keep bringing in more and more to the coalition.

22 I think this is essential both for environmental
23 justice as well as for environmental efficacy.
24 Specifically, there are things that we can do right now,
25 which will improve all of this plan. If we look into page

1 103 of your plan, we only get one sentence specifically
2 that is non-lightduty ZEV penetration. And we get to make
3 significant progress.

4 I have no clue what that means. I don't know if
5 significant progress is 3X the amount of vehicles, or if
6 that means we're going to have 5 percent market share, or
7 if that means we're on our way to 100 percent in 50 years.
8 All of those have different emission reductions. And as a
9 business person, I can't plan how do we manufacture or
10 create jobs to do that if I don't know those numbers.

11 There's another one line thing that could make
12 life a lot easier, streamline CEQA compliance. In 2014, I
13 came to a planning workshop here, which led to the
14 creation of a grant, which 6 months later I started
15 working on writing a grant. We got a coalition. We
16 applied for the grant. I submitted it 1 year ago today.
17 Three months later we were told, yes, we can go forwarded.
18 You are conditionally award.

19 Then the budget didn't come till August, your
20 Board approved it in October, today we still have not
21 started work on the vehicles that we started talking about
22 in 2014. That's a 3-year gap. And when I see a timeline
23 in here, and I see, okay, you've got 2020 for when we're
24 doing something. Does that mean 2020 we are starting the
25 plan? Does that mean 2020 it's your staff is evaluating?

1 Does that mean 2020 and award was announced; 2020, the
2 money is ready; or 2020 we started deploying vehicles?

3 I think that is essential. If 2020 is when we
4 deploy vehicles, that means today we are starting, and
5 then I'm very happy, because that means cleaner air.

6 The other thing that's very important is I'm a
7 millennial. Most of my friends, if you tell them 3 years
8 from now what are you doing, they could have started a
9 company, sold it, moved cities.

10 And if that's how long it takes me to get one
11 proposal through, how do I convince my friends that the
12 best way, and the most effective scalable way to have
13 impact is to come work with coalitions here?

14 (Laughter.)

15 CHAIR NICHOLS: Thank you.

16 (Laughter.)

17 CHAIR NICHOLS: Well done.

18 BOARD MEMBER SERNA: That is the most efficient
19 use of 3 minutes I've ever seen.

20 (Laughter.)

21 CHAIR NICHOLS: I think you made your points very
22 effectively.

23 Okay. Next.

24 MR. PATNEY: Hi there. Arjun -- is this on?

25 Arjun Patney, American Carbon Registry.

1 Thank you, Board, and as well as the EJAC
2 community that was hear earlier. Just a first point. I
3 just wanted to make sure there wasn't any misunderstanding
4 with Board Member Mitchell had mentioned that her
5 perception that there were more offsets from outside of
6 California due to, if I heard correctly, lesser
7 regulations outside of California.

8 And if that's the case, I just want to clarify
9 that offsets that cannot be issued in California due to
10 regulatory coverage, due to regulation cannot be issued
11 outside California either. So it's not a regulatory
12 disparity that drives that -- the difference in offsets,
13 having more offsets outside of California. And the staff
14 could certainly speak to that as well.

15 So, you know, I do appreciate that the scoping
16 plan recognizes the effectiveness of the existing
17 Cap-and-Trade Program, including offsets. We support the
18 position that the offsets limit of only 8 percent, as it
19 is now, should not be reduced further, and although we
20 believe that an increase would be good for both the planet
21 and the economy.

22 You know, to think that -- to think about taking
23 certain emission reductions off the table is to consider a
24 luxury that we cannot afford. We cannot afford it given
25 the climate crisis, and we likely cannot afford it -- we

1 likely cannot afford making greenhouse gas mitigation more
2 expensive in terms of the impact on our economy, and a
3 reduction in jobs potentially as well.

4 The American Carbon Registry has been an offset
5 project registry in the program since it began. And
6 working with ARB, we believe that every offset we have
7 issued is a real emission reduction that has helped
8 counter the potentially devastating effects of climate
9 change. Because climate change can be addressed with
10 emissions reductions anywhere, we have not been
11 particularly focused on where reductions the occur.

12 We do recognize, however, that others in this
13 room do care where those reductions occur. And if we're
14 hearing them correctly, they want the co-benefits of
15 cleaner air and jobs.

16 So we are beginning to look, at ACR, at how
17 opportunities for emissions reductions, based on our
18 existing methodologies, overlay with disadvantaged
19 communities, and the opportunities are there.

20 The next step would be to give thought to new
21 approaches to emissions reductions that are specifically
22 geared towards disadvantaged communities. We would hope
23 that ARB would look at that, and we will be looking at
24 that at ACR as well.

25 As we move forward, we'd be interested to work

1 with the EJ community and other interested stakeholders.

2 Thank you very much.

3 CHAIR NICHOLS: Thank you.

4 MR. BOCCADORO: Michael Boccadoro on behalf of
5 Dairy Cares. I appreciate the opportunity.

6 We do have some concerns with some of the costs
7 associated with the plan as it relates to the agricultural
8 community, but I'm going to leave those for another day.

9 I did want to briefly provide some comments on
10 the dialogue that occurred earlier today between Board
11 Member Mitchell and the environmental justice community.
12 It's really important that we foster some better
13 communication between the dairy industry, the agency here
14 and the environmental justice community, because we appear
15 to be talking past each other.

16 There's absolutely no question, and -- to the
17 fact that dairy digesters can provide substantial
18 greenhouse gas benefits in the State. There appears to be
19 a lack of understanding that these projects, if done
20 right, can also provide substantial criteria pollutant
21 reductions and benefits to disadvantaged communities.

22 We're trying to move these projects working with
23 your staff. There's a sustainable freight project that
24 ARB is sponsoring, along with State, down in Kern County,
25 on a large dairy cluster down there, two transportation

1 fuel projects.

2 If we can accomplish that, they have the
3 opportunity to provide substantial NOx benefits in the San
4 Joaquin Valley by converting diesel trucks to natural gas
5 trucks, and running them on dairy biomethane. So there's
6 a huge opportunity here. And I sent an email earlier
7 today to Mr. Corey and others. The air district down at
8 the San Joaquin Valley. Dr. Sherriffs has been working
9 with us to calculate what those NOx reduction potentials
10 are, and they're huge. They're in the tens of thousands
11 of pounds per project for some of the larger dairy
12 digester projects.

13 So we need to stay committed to that, working
14 towards that. It's not easy. We don't have one working
15 here in California today, but we're on the right path.

16 And just lastly, let me thank your staff. Most
17 of the folks sitting in front of me on your staff have
18 been out to view a dairy digester or more than one dairy
19 digester. Dr. Sherriffs, Mr. Eisenhut, Ms. Riordan have
20 also been out. We encourage others to take that trip and
21 see the good work that the industry is doing, and see the
22 potential.

23 There's a vision here. We want to maximize the
24 benefits of these projects and get the criteria pollutant
25 benefits in the disadvantaged communities.

1 And then lastly, let me just say, it's not all
2 about digesters. The industry is also looking at other
3 alternative manure management projects, along with ARB and
4 CDFA, solid separation, conversion to scrape where it
5 makes sense, and even pasture based dairy operations.

6 They don't work in the San Joaquin Valley very
7 well where we have irrigated pasture, but they do work on
8 the north coast. So we're open to all of those things,
9 and those projects can also have other benefits, including
10 water quality benefits.

11 And the dairy digester projects provide water
12 quality benefits. So we need to quit talking past each
13 other, foster some better communication, and we're going
14 to looking to your staff to help provide that opportunity.

15 Thank you.

16 CHAIR NICHOLS: Thank you.

17 Betty Chu.

18 MS. CHU: Good afternoon. My name is Betty Chu
19 and I'm with Calpine Corporation.

20 CHAIR NICHOLS: Could you speak a little closer
21 to the microphone, please? Thank you.

22 MS. CHU: My name is Betty Chu, and I'm with
23 Calpine Corporation. Calpine is the largest generator of
24 electricity from natural gas and geothermal resources in
25 the U.S. We're proud that out of the country's 10 largest

1 power generators, we have the lowest emissions of criteria
2 pollutants and greenhouse gases.

3 We've long supported California's groundbreaking
4 climate change program and have stood alongside ARB and
5 the State in defending EPA's efforts to reduce power
6 sector emissions. Calpine strongly supports staff's
7 proposed scoping plan scenario. Continuation of the
8 Cap-and-Trade Program will provide greater certainty that
9 the state will achieve its ambitious 2030 goal than the
10 other options considered. It also provides the
11 opportunity for linkage with other states and provinces.

12 Now, more than ever, it is critical for
13 California to play a strong leadership role in working
14 with other jurisdictions to combat climate change. And
15 continuation of the Cap-and-Trade Program is a key
16 component of that leadership.

17 We also believe that the proposed scoping plan
18 scenario strikes the right balance between the criteria
19 provided by AB 32, such as minimizing leakage and
20 maximizing benefits to the State, and AB 197's instruction
21 to prioritize measures resulting in direct reductions at
22 sources.

23 And the revenue generated by the auctions allows
24 for investments that can achieve targeted reductions and
25 promote equity throughout the State.

1 Thank you.

2 CHAIR NICHOLS: Thank you.

3 And, Paul Mason, you are the last on the list, I
4 believe.

5 MR. MASON: Well, thank you, Chairman. Paul
6 Mason with Pacific Forest Trust. And being the last, I
7 will try not to repeat anything else and be brief.

8 I wanted to thank the staff. Obviously, they've
9 done a tremendous amount of work here, but it's really
10 been, I think, a stretch and a stretch done pretty well by
11 the Air Resources Board to integrate the natural and
12 working lands sector into their thinking, because it is a
13 much more holistic way of approaching things than looking
14 at a tailpipe or a smokestack in bringing down the
15 emissions in that one area, because in natural systems
16 things are so interrelated. So I really appreciate the
17 staff really stretching to build that into the thinking in
18 the plan.

19 And as the Minister from Ontario noted earlier
20 today, as well as Natural Resources Agency, the natural
21 and working lands sector is just so tremendously
22 consequential. If we don't get a grip on reducing the
23 emissions that are starting to happen there from that
24 sector frankly coming unraveled in some places, and take
25 advantage of that sequestration, all of the rest of our

1 efforts are going to be for not, because they're just
2 going to be overwhelmed by the emissions coming from the
3 natural lands. So it's really something we need to
4 prioritize.

5 And that brings me to the action plan that's
6 proposed in this section, because frankly it is
7 complicated. We do have some uncertainty and I fully
8 understand that we're going to need to take some
9 additional time to develop some more specific plans for
10 different regions of the State to get down to, okay, what
11 specifically are we going to do?

12 But I look at the forest carbon plan. It was a
13 product of the last scoping plan that came out in May of
14 2014. And it was a, you know, 1 bullet point item there.
15 Two and a half years later, we finally see the first
16 substantive draft of that on Friday. And I want to make
17 sure that as we're embarking on another round of planning
18 processes, that we make sure that there are some good
19 benchmarks built into there, and sort of a scaffolding
20 within which to work, so that we don't end up with a
21 planning process that goes on and on without really
22 getting to those actions steps that are going to be
23 necessary in that sector.

24 So the draft plan does layout a lot of things
25 that should be addressed, and we'll include some

1 additional suggestions in our written comments for how to
2 make sure that we actually get there. But I think that it
3 is something we're going to need to pay attention to,
4 since it is such a major part of what we're looking at
5 here, that it doesn't become a soft target that slips out
6 until 2018, 2019, and, you know, never really gets down to
7 action steps.

8 Thank you very much

9 CHAIR NICHOLS: Thank you.

10 Okay. That is the end of our public testimony.
11 And therefore, I think we can close the record at this
12 point, is that right, we can close it for this proceeding
13 or how do we do this?

14 CHIEF COUNSEL PETER: We actually have the CEQA
15 comment periods open, so we can -- we're still receiving
16 comments on -- in the docket and it's open.

17 CHAIR NICHOLS: Okay.

18 CHIEF COUNSEL PETER: You can close the public
19 testimony as of today.

20 CHAIR NICHOLS: Yes, for the testimony we'll --
21 for today will certainly be closed. Okay. So at this
22 point, I think we need to have a brief discussion of what
23 happens next. And I believe Ms. Takvorian had some
24 comments.

25 BOARD MEMBER TAKVORIAN: I just have a couple

1 questions, then I have to run to catch a plane.

2 CHAIR NICHOLS: Yes. Okay. That's all right.
3 Great.

4 BOARD MEMBER TAKVORIAN: So actually it dovetails
5 with I think what you were asking, but I wanted to ask the
6 question, because I've been asked. Many people submitted
7 comments in response to the discussion draft, and I wanted
8 to clarify whether those could be responded to as part of
9 the CEQA process in the response to comments? I think
10 it's confusing for members of the public to think that
11 they've submitted comments and not to know that they might
12 need to submit them again.

13 CHIEF COUNSEL PETER: Let me address that. The
14 CEQA process has a beginning date and it's attached to a
15 particular document. So if somebody wants to comment on
16 that, they need to submit the comment for the -- during
17 the CEQA period.

18 There's been so many, you know, workshops and so
19 forth, that it would be unclear what's in and what's out.
20 And so that's why the statute provides a very specific
21 beginning end, and an ending end.

22 So the time is -- was triggered by the
23 announcement when it was released. It's currently set for
24 45 days. As the Chair indicated, it can continue onward.
25 Comments that are made at the hearing during the -- during

1 that period also will be addressed. But some of these
2 discussions have gone back, as you know, you know, months
3 in workshops and so forth. So we're in the comment period
4 right now.

5 BOARD MEMBER TAKVORIAN: Okay. Well, that's what
6 I was afraid of, because I think I understand CEQA pretty
7 well. So that's why I wanted to ask the question. I do
8 think that if staff could look at the discussion draft
9 comments and not ignore them, that -- I get it in terms of
10 the official responses, but I think a lot of people
11 responded to the discussion draft and I hate to lose
12 those, so --

13 CHIEF COUNSEL PETER: No, I totally agree there.

14 BOARD MEMBER TAKVORIAN: Okay.

15 CHIEF COUNSEL PETER: You can include other
16 information. Somebody could also resubmit it during the
17 period. That's the other thing they could do.

18 BOARD MEMBER TAKVORIAN: Right. I just wanted to
19 make sure everybody got that -- that word.

20 And then the other just couple things I wanted to
21 say were that I agree that the Board workshop would be
22 great. And I appreciate that comment.

23 And I also wanted to just say that I really
24 appreciate the integration of environmental justice and
25 health and air quality that seems to be running throughout

1 the plan. I think that's a huge change, and a real step
2 forward.

3 I'm saying this in shorthand, so please take lots
4 with it, but that I think it's inconsistent. There are
5 actually places in the plan where that is -- it actually
6 says the opposite, that it says that greenhouse gases and
7 direct air pollution reduction and criteria pollutants are
8 not consistent to be -- shouldn't be integrated. So I'm
9 concerned about that, and I think we need to clean that
10 up. So I'm hoping that we can do that.

11 And then the other thing about the environmental
12 justice analysis that has been raised is that that really
13 does need to be consistent across the Board, and that each
14 of the scenarios needs to be assessed against the
15 environmental justice analysis, as well as the measures, I
16 think.

17 And then I would just reiterate that I think the
18 measures and the benefits need to be articulated and
19 quantified.

20 In the industrial sector specifically, I don't
21 think that the scoping plan goes far enough, so I'm
22 looking for what else we can do beyond the cap-and-trade
23 scenario that's laid out. And I've already given my
24 comments about the VMT and transportation.

25 Thank you.

1 CHAIR NICHOLS: Yes. Thank you. Yeah. Just
2 with respect to the comments that we've heard coming
3 along, you know, through the discussion process, many of
4 those comments were really high level, "You should think
5 about this", "You should emphasize that", "You should
6 focus differently." And they were really good comments.
7 I mean, there was nothing -- you know, nothing wrong with
8 them as comments. They may not have been specifically
9 answered, but I would hope that we would go back and take
10 a look at them and see where there are ideas or themes
11 that we haven't incorporated or that we could do a better
12 job of calling out in the final document.

13 A lot of the comments are about things that are
14 written in a way that either might be slightly misleading
15 or not reflect everything that we think or that we've
16 done. And just going back and sort of thinking more about
17 how to -- how to document our thinking is going to be very
18 important as we go forward.

19 I do think that a number of the comments that we
20 heard reflect the fact that this scoping plan is a really
21 big deal, and people are hoping that it's going to guide
22 everything that happens, you know, from local land use
23 decisions, to investments by Caltrans, to -- you know, to
24 the future of the State's economy, and in a way, of
25 course, it will. It needs to, if we really are going to

1 be serious about making our State climate resilient and
2 incorporating climate thinking into everything we do.
3 It's a -- it is a thread that has to run through
4 everything that we do.

5 But that means that there are a lot of other
6 agencies and entities that have jurisdiction here that
7 also have to be involved, and have to find either
8 incentives or reasons why they need to be involved in
9 doing all the things that we think they should be doing.
10 The comment about 375 especially, you know, caused me to
11 smile a little bit, because we've gone so far beyond, you
12 though, where people thought that was going to take us in
13 terms of the thinking that's going on at the regional and
14 local level about carbon reduction, but it's still nowhere
15 close to what needs to be done.

16 So it's -- I guess, it's easy to just sort of
17 tick off the things that have already happened and focus
18 on what needs to happen going forward. And this is a
19 forward-facing plan.

20 Anyway, I'm pleased with the level of
21 participation, with the breadth and diversity of the
22 comments that we heard. I'm also pleased, in general,
23 with the level of interest on the part of all sectors of
24 the community, and being part of this effort, and helping
25 us do a better job with it. So I think we're -- I think

1 we're well begun, but we have, as we keep saying, a lot of
2 work to do. And part of that, of course, is going to be
3 to incorporate new studies and new ideas that come along.

4 With that, we don't take any action today, but if
5 there are Board members who have additional thoughts.

6 Dr. Sperling.

7 BOARD MEMBER SPERLING: Yes. I'd like to follow
8 up on your comment about SB 375, which I was going to say
9 anyway.

10 CHAIR NICHOLS: Oh, good.

11 BOARD MEMBER SPERLING: You know, I feel like
12 we've suffered through years with SB 375 with one key
13 aspect ignored over and over again. And I think this is
14 the time to really call attention. And so Bonnie
15 Holmes-Gen was starting to go there.

16 We need to get the California Transportation
17 Commission, California State Transportation Agency, and
18 the MPOs much more engaged on the funding of
19 transportation. And the scoping plan largely ignores it,
20 or is very passive on it, let's say. And I think that's,
21 of all the things I saw in the whole scoping plan, that's
22 the thing that stood out to me that really needs a lot
23 more attention and could be very influential going
24 forward, and should be.

25 CHAIR NICHOLS: I agree with you. Mr. Corey

1 actually went and spoke to the California Transportation
2 Commission not too long ago, a rather scary place to
3 appear if you're there.

4 BOARD MEMBER SPERLING: I'll tell you my anecdote
5 on that. After one of these meetings, previously, I did
6 this -- I went to CTC. I said, you know, we need to
7 figure this out. How do we get funding to follow the SB
8 375 SCSs, how do we start changing that, and can you give
9 me a tutorial on this?

10 So I sat down with them for 3 hours. They had
11 their top analysts. And after 3 hours, I was more
12 confused --

13 (Laughter.)

14 BOARD MEMBER SPERLING: -- Than when I walked in.
15 It's really complicated. And I don't know if people use
16 that intentionally or not, but stuff is not happening, you
17 know.

18

19 (Laughter.)

20 CHAIR NICHOLS: One might wonder if the process
21 was designed -- let's say it's the opposite of
22 user-friendly as your experience showed. So, I don't
23 know, Mr. Corey, if you have any additional thoughts about
24 your adventures with the CTC?

25 EXECUTIVE OFFICER COREY: I was advised not to

1 go -- but

2 (Laughter.)

3 EXECUTIVE OFFICER COREY: -- a large Commission
4 that is historic -- you know, several local
5 representatives. And part of the conversation -- the
6 objective of the presentation was to provide an overview
7 of the scoping plan, the target -- really, what we just
8 talked about here, but at a higher level.

9 The conversation got into VMT, and the
10 perspective by some. And I'd be the first to say pretty
11 diverse group. I mean, there are some folks that really
12 would share, I think, significantly the vision that you
13 can't get to our GHG target without a significant
14 transformation of the transportation sector. I don't
15 think that viewpoint is shared across necessarily all the
16 members.

17 And, to me, there is a lot of work to do with the
18 Commission, with the CalSTA, with Caltrans. We have
19 been -- I've personally taken on to meet with the
20 executive director every other week, because I think
21 forming that relationship of a group that we really
22 haven't had that history is going to be key to move
23 forward. But this is an area I'm actually looking for
24 some help, guidance, because I think that's what it's
25 going to take.

1 (Laughter.)

2 CHAIR NICHOLS: And that's just one aspect of
3 this program that we're dealing with here.

4 All right. Yes, Supervisor Serna.

5 BOARD MEMBER SERNA: Thank you, Chair Nichols. I
6 just want to say that I -- you know, this is -- if you
7 look at the executive summary of the draft, it explains,
8 about as simply as you can explain it, what this document
9 is intended to be, and that is a framework of action.

10 And while I totally agree with that. You could
11 judge by the thickness of it, that it's a pretty detailed
12 one. And it should be. I mean, there's been additive
13 legislation. Other laudable intent with a mid-term target
14 that now is incorporated into this.

15 And I just want to say having had discussions
16 with people that are much smarter than I am when it comes
17 to CEQA, and it's application in this State, there has
18 been quite a bit of concern for -- especially on the local
19 land use CEQA side of things that the scoping plan is
20 obviously going to help inform quite a bit, in terms of
21 impact analysis and appropriate mitigation when it comes
22 to land development especially in our cities and counties.

23 So I, for one, am actually very encouraged by the
24 level of detail in here, because I think that that's going
25 to be a very clear signal to that particular industry, and

1 certainly for us in local government, that we have
2 something we can rely on, and we won't have to go to court
3 every single time on projects, because there is something
4 that's nebulous or misunderstood.

5 So I think taking the time to do it right and
6 certainly with respect to the urgency of this has been
7 wed -- wed together appropriately so thus far. So again,
8 thanks to staff and certainly the Environmental Justice
9 Advisory Committee for all their continued hard work, and
10 everyone that spoke today. And I'm sure that we'll
11 continue to give us a piece of their mind in the future
12 about this very important document.

13 Thank you.

14 CHAIR NICHOLS: Ms. Mitchell.

15 BOARD MEMBER MITCHELL: First of all, thank you
16 staff for a very comprehensive document. And I think one
17 of the highlights of this scoping plan is the
18 collaboration that you have achieved with the other
19 agencies that are involved, because eventually all that
20 greenhouse gas reduction money goes to some of these
21 agencies, and we need to work with them to get the job
22 done. So I congratulate you on all that hard work.

23 The one thing in the plan that I am most excited
24 about, and also concerned about is the transportation
25 sector. One of our speakers highlighted page 103, and it

1 was the page that I had marked myself, because it does
2 call for accelerated use of clean vehicle equipment and
3 technologies in the freight operations.

4 And it also calls out, and much to my
5 gratification, the work that is being done on I-710, and
6 that you've noted that we can work with the Caltrans on
7 getting a zero emission -- near zero or zero emission
8 freight lanes on that road, which is something that that
9 community, which is an EJAC community, has been working
10 very hard on.

11 So -- and I think we have some more work to do on
12 the incentives. Obviously, we need incentives to
13 transform those fleets that are moving our freight. And
14 so, as you know, we're trying to work on that down in the
15 South Coast. And we appreciate your help on that as well.

16 So that's one of the things I'm most concerned
17 about as we move forward with our scoping plan.

18 Thank you.

19 CHAIR NICHOLS: Other comments?

20 Mr. De La Torre.

21 BOARD MEMBER DE LA TORRE: Thanks. Just 2
22 points. One is a point that I've made before about the
23 politics of cap and trade. I appreciate that staff is
24 looking at all of the different options and how they all
25 fit and what direction we might go, including dumping cap

1 and trade.

2 But it's always good to remind ourselves about
3 the political realities of the options in front of us. As
4 I've said to many of my former colleagues, staff,
5 advocates, there's 3 options on the table. There's cap,
6 no trade. We could just regulate it. And there's nuances
7 to these obviously, but the core of them are 3. Cap, no
8 trade, where we just regulate reductions. There is a
9 carbon tax, and there's cap and trade.

10 Of those 3, cap and trade is the most politically
11 acceptable for -- we wouldn't be able to do a carbon tax.
12 We, here. They, over there, would. And so that is a
13 reality that we have, not just in California, but in any
14 political environment. And so that also has to constantly
15 be brought you up. And I take it upon myself to do that,
16 as someone who used to be in that building.

17 It is very important that we always keep that in
18 mind, because we could come up with the best program that
19 makes the most sense in this room, and it wouldn't stand a
20 chance over there. And so we need to keep that in mind as
21 we go through this.

22 And then secondly on the EJAC recommendations, it
23 was very rich. There was a lot stuff in there, but there
24 were a lot of really good mitigation strategies, and
25 targeted, geographic improvements that could be made that

1 supplement cap and trade. And we've had this conversation
2 among ourselves individually. I don't know that I've ever
3 had the conversation here in the public.

4 But there are some really good ideas in there
5 that I think we need to cull and incorporate into our
6 thinking of -- on a going-forward basis, regardless of how
7 we move forward, that we incorporate some of those things,
8 because we've -- we need to do more in those areas.

9 Thank you.

10 CHAIR NICHOLS: Thank you.

11 Any other -- yes, Dr. Sherriffs.

12 BOARD MEMBER SHERRIFFS: Yeah, and I just have to
13 add coming from the valley to be certain that we are aware
14 as we do these of any adverse impacts that there may be on
15 air quality criteria pollutants, and that we recognize
16 those, and consider how they would be addressed.

17 Thanks

18 CHAIR NICHOLS: Yes.

19 Any other Board members want to be heard at this
20 time?

21 BOARD MEMBER RIORDAN: I just, Madam Chair, I
22 wondered about the workshop. Have you thought through
23 this or are you going to let us know what you might work
24 out? I think it's a -- I think it's an excellent idea.

25 CHAIR NICHOLS: I thought it was such a good

1 idea. I thought I should just let others implement it,
2 and --

3 (Laughter.)

4 CHAIR NICHOLS: Well, to the extent that I have
5 given it more thought, it was to hope that we could get it
6 done and get everybody there. And the easiest way to do
7 it is in connection with a Board meeting.

8 So if we can find a way around the February Board
9 meeting, either afternoon and evening before, or
10 something -- probably before is better, just because it
11 gives us an opportunity to reflect on what we've heard at
12 that workshop, and then organizing it in a way that it's
13 really productive, so that everybody can speak, and can
14 hear, and I think is going to be the key to it is having
15 the right agenda, and possibly a facilitated situation
16 just to make sure that we keep ourselves all moving
17 forward.

18 Yeah, I'm pretty excited about the idea actually.
19 So I hope we can work along those general -- those general
20 lines.

21 I can't resist sort of saying one more thing
22 about -- in response to -- really to Hector's comment.
23 There's no question that the Cap-and-Trade Program is the
24 thing that attracts the most attention about the scoping
25 plan. But we have to keep reminding ourselves that it

1 isn't the scoping plan. It is just one piece of the
2 scoping plan, and we could take it out of the scoping
3 plan.

4 By contrast, let's say, taking out our vehicle
5 emission standards would destroy the scoping plan, and the
6 threat that we face of that actually happening as a result
7 of congressional action is real. We don't want to
8 overplay it, and we certainly don't want to do anything to
9 encourage it. But on the other hand, we have to be
10 mindful of where the real bang for the buck is. And maybe
11 we haven't done a good enough job of sorting of
12 articulating that aspect of it. We've done it in kind of
13 a defensive way sometimes when we, you know, needed to,
14 you know, try to explain that we weren't just all cap and
15 trade all the time.

16 But I think maybe we need to have
17 another -- another way of kind of framing that discussion.
18 But the other thought that came to me as you were making
19 that comment was that this is not a body, which is well
20 suited to cutting a deal on what the legislation is going
21 to look like. We don't have the ability to -- for
22 starters to get into a back room, you know. And to the
23 extent we tried to do that, we would really undercut our
24 credibility and what we do bring to the table

25 So I want to make sure that we have the robust

1 discussion and do what we can to make sure that everybody
2 understands the facts -- the real facts, not the
3 preferred, or pretend, or alternative facts, or whatever.
4 But at the same time -- and that we can also spell out
5 where we think there's room for changes, for additions, or
6 as you were suggesting, things that come out of this
7 discussion that could make the program less burdensome,
8 more attractive to people who oppose it.

9 But I don't want to get into the position where
10 we're negotiating with ourselves or with other people
11 about what it's going to look like, because we can't do
12 that. That's not our job.

13 So I know you didn't mean that, but it was
14 just -- I wanted to make sure that we were all clear on
15 that fact, that we don't get to -- we don't get to do
16 that.

17 So with that, I think we will conclude this item,
18 and maybe just shift staff and take a stretch break, but
19 it's time for us to let Mr. Corey give us his plans for
20 the rest of the year.

21 Long vacations, lots of --

22 (Laughter.)

23 CHAIR NICHOLS: He turns red when he --

24 CHIEF COUNSEL PETER: He's got a camera on him
25 right now.

1 CHAIR NICHOLS: Okay. While we're getting
2 settled here, I do need to note, and I didn't, because we
3 launched right back into the discussion on the scoping
4 plan, I have to note for the record that we did hold a
5 closed session during our lunch break. That the Board was
6 briefed on litigation, but there was no action taken
7 during that closed session.

8 So that's for the record.

9 Okay. Are we ready for the Executive Officer's
10 report?

11 EXECUTIVE OFFICER COREY: We're ready.

12 CHAIR NICHOLS: We're going to hear about our
13 program priorities for 2017. And once again, we know that
14 2016 was a big year. And we made a lot of progress, but
15 we are going to be advancing a wide range of initiatives
16 in 2017. And so this report is intended to be an
17 overview, and some sense of the timing in which things
18 will be coming forward. It's just an information item.
19 So we will hear from the public, if anyone wants to
20 address it, but there's no formal record on this
21 proceeding.

22 (Thereupon an overhead presentation was
23 Presented as follows.)

24 CHAIR NICHOLS: Of courser, it does become part
25 of your job review, but you know --

1 (Laughter.)

2 EXECUTIVE OFFICER COREY: Of course.

3 CHAIR NICHOLS: Okay.

4 EXECUTIVE OFFICER COREY: Ready?

5 CHAIR NICHOLS: Yes, we're ready.

6 EXECUTIVE OFFICER COREY: All right. I'm pleased
7 to report the work we've been doing over the coming year.
8 I want to highlight some of the significant actions the
9 Board is going to be considering, but really to get to the
10 punch line. I believe that this is going to be the most
11 ambitious and important year for our agency in decades
12 presenting great opportunities to build on our successes.
13 And I will underscore, over the course of this
14 presentation, why that is.

15 --o0o--

16 EXECUTIVE OFFICER COREY: As you know, this year
17 is the 50th anniversary of the Air Resource Board.
18 Therefore, I think it's fitting to start my presentation
19 by highlighting some of the activities we'll be
20 undertaking to mark this occasion.

21 I also want to reflect on many of the major air
22 quality and climate accomplishments in 2016, and the work
23 that staff has done to position the agency for the
24 challenges ahead. There is a lot to be proud of. But as
25 noted, we also have a great deal more work to do here.

1 This year, more than ever before, presents a
2 tremendous opportunity to define the path to achieve our
3 air quality and climate goals.

4 --o0o--

5 EXECUTIVE OFFICER COREY: As you know, ARB was
6 established in 1967, and was the first air agency of its
7 kind. The Board's 5 decades of stewardship has led to
8 exceptional air quality progress, continuing technical
9 innovation, and environmental leadership, both nationally
10 and internationally.

11 To recognize this important milestone, we're
12 planning a number of activities over the next year. This
13 will include events highlighting the progress that has
14 been achieved, as well as the key actions and dedicated
15 staff that has been so fundamental to the success.

16 We'll also break ground for the new laboratory in
17 Riverside, which will have a state of the art vehicle
18 testing facility.

19 Finally, we'll be redesigning our website to
20 provide greater access -- accessibility to the public and
21 stakeholders.

22 --o0o--

23 EXECUTIVE OFFICER COREY: Let me start with some
24 of ARB's accomplishments over this past year.

25 --o0o--

1 EXECUTIVE OFFICER COREY: We continue to see air
2 quality improve throughout the State. Last year, EPA
3 determined the San Joaquin Valley, one of only 2 extreme
4 nonattainment areas in the nation, met the 1-hour ozone
5 standard. EPA also recently recognized the progress that
6 has been made in San Luis Obispo, and Mariposa counties,
7 with these regions now meeting the 8-hour ozone standard
8 of 75 parts per billion.

9 And Imperial County now meets the 24-hour PM2.5
10 standard improving the health of residents in a region
11 with one of the highest rates of childhood asthma in the
12 State.

13 Health risks from air toxics also continue to
14 decline. Diesel particulate matter, which accounts for
15 over two-thirds of the total known air toxics cancer risk
16 in the State has dropped nearly 70 percent -- 70 percent
17 since 1990.

18 But we know we need more -- we need to do more to
19 meet our air quality and risk reduction goals.
20 Approximately one-third of California's 38 million
21 residents still live in communities that exceed the
22 federal ozone and PM2.5 standards. And exposure to diesel
23 particles is too high, especially in Disadvantaged
24 communities near freight facilities such as ports, rail
25 yards, and distribution centers.

1 The efforts I'll describe later in my
2 presentation will be critical to achieving our public
3 health and risk reduction goals.

4 --o0o--

5 EXECUTIVE OFFICER COREY: On climate, our actions
6 are putting us on track to meet the 2020 greenhouse gas
7 reduction target mandated by AB 32. California's
8 greenhouse gas emissions have declined at the same time
9 the State's Gross State Product has continued to grow,
10 representing an ongoing transition to a thriving low
11 carbon economy.

12 In 2016, 100 percent of covered entities complied
13 with the cap-and-trade regulation's November compliance
14 event. Over \$3 billion was appropriated for climate
15 investments, ranging from cleaner technologies to more
16 sustainable communities.

17 --o0o--

18 EXECUTIVE OFFICER COREY: Meeting our air quality
19 and climate goals will require an ongoing transformation
20 to cleaner technologies and fuels. 2016 saw continuing
21 progress.

22 By the end of 2016, over 250,000 zero emission
23 and plug-in hybrid electric vehicles were operating on
24 California's roadways. By the end of 2016, there were 30
25 makes and models of electric vehicles, when just 6 years

1 ago there were only 5 available. Six of the models
2 available now, including the Chevy Volt, have more than
3 200 miles of zero emission range.

4 Thirteen thousand public and workplace electric
5 charging stations support this growing number of ZEVs.
6 The number of hydrogen fueling stations also doubled last
7 year, with 12 new stations that increased the total number
8 of retail stations to 25.

9 In the heavy-duty sector demonstration projects
10 of zero and near zero technologies are underway, and the
11 use of solar power also continues to grow. The Green Omni
12 Terminal Demonstration Project at the Port of Los Angeles
13 will be a solar-powered facility that uses zero and near
14 zero emissions cargo handling equipment to move goods.
15 And since 2013, overall solar power generation in
16 California has more than doubled as a result of policies,
17 such as the Renewables Portfolio Standard.

18 --o0o--

19 EXECUTIVE OFFICER COREY: 2016 was a major year
20 for climate actions. At the State level, the California
21 legislature passed a number of key bills called out here.

22 They were provided in a briefing that our
23 Legislative Director provided a few past, so I won't go
24 over each one. But they'll have a significant impact from
25 a climate policy standpoint.

1 And at the federal level, EPA finalized their
2 phase 2 GHG standards for heavy-duty trucks. The Kigali
3 Agreement signed in October 2016 phases down the
4 production of fluorinated gases. United States,
5 California and industry commitments to fund the research
6 necessary to assess the feasibility and safety of low-GWP
7 refrigerants is also underway.

8 Implementation of the International ZEV Alliance,
9 which is a collaboration of national and subnational
10 governments working together to accelerate the adoption of
11 ZEVs around the world also continues to expand, as does
12 the Under 2 MOU, which was discussed earlier today.

13 --o0o--

14 EXECUTIVE OFFICER COREY: 2016 also marked a
15 focus on public health protection, especially
16 disadvantaged communities. ARB staff continued to support
17 implementation of our programs through compliance outreach
18 and enforcement efforts, including focusing on large
19 freight hubs and disadvantaged communities.

20 Incentives continue to play a vital role in
21 promoting cleaner technologies. Last year, over \$700
22 million was invested through multiple programs. And
23 efforts to reduce NOx emissions from heavy-duty trucks are
24 also critical for meeting ozone and PM2.5 air quality
25 standards.

1 In response to work by ARB staff and petitions by
2 local air districts, headed up by the South Coast
3 District, in December of last year, EPA committed to the
4 development of new low-NOx engine standards as part of a
5 harmonized rulemaking with California. We plan to
6 continue to work with EPA to move expeditiously in
7 developing these requirements in recognition of the
8 critical public health benefits they'll provide.

9 --o0o--

10 EXECUTIVE OFFICER COREY: As I mentioned,
11 incentive programs have been essential in spurring the
12 deployment of cleaner technologies and air districts are
13 key partners in implementing these programs. This slide
14 highlights just a few of these local investments.

15 The Prop 1B program funded the purchase of 30
16 Tier 4 locomotive engines throughout the State. The Carl
17 Moyer program supported the purchase of 13 electric
18 transit buses in South Coast, and 86 units of electric
19 airport ground support equipment in the Bay Area. The San
20 Joaquin purchased 15 electric transit buses and the
21 Sacramento district 29 cleaner school buses using AQIP
22 funding. Funding for cleaner school buses is especially
23 important to reduce children's exposure to harmful diesel
24 particulate.

25 --o0o--

1 EXECUTIVE OFFICER COREY: Ensuring these new
2 technologies operated as expected in the real world is
3 also critical. As you know, VW installed defeat devices
4 on certain diesel models to cheat test cycles used for
5 assessing compliance with California's emission standards.

6 Last October, the federal court approved a
7 landmark 14.7 billion settlement for 2 liter diesel
8 engines - cash to individual owners or lessees and
9 mitigation and other payments to the states. The
10 settlement could not have happened without the
11 extraordinary work of ARB's technical and legal staff in
12 identifying the defeat devices, and in working with EPA to
13 negotiate the appropriate mitigation and penalties.

14 Expanded testing programs have also discovered
15 additional violations, with the recent announcement
16 regarding the certain Fiat Chrysler diesel vehicles.
17 These efforts underscore the need to continue to enhance
18 ARB's vehicle testing and enforcement programs.

19 The new state of the art laboratory in Riverside
20 is pivotal to that effort to ensure that the new vehicles
21 operate as certified under a full range of real-world
22 driving conditions.

23 --o0o--

24 EXECUTIVE OFFICER COREY: Significant progress
25 occurred in our efforts for the new Southern California

1 facility. Escrow closed on the Riverside site earlier
2 this week, and the Governor's proposed budget for fiscal
3 year to 2017-18 includes funding for the new facility.

4 The proposed funding is a major milestone for the
5 project, and, if approved, will pave the way for the final
6 design and construction of the facility by the end of
7 2021.

8 We're also working -- or early 2021. We're also
9 working on several efforts to support employees during the
10 transition. Our administrative staff have conducted 3
11 tours of the Riverside area for El Monte staff in
12 cooperation with the Mayor's office, other Riverside
13 representatives, and UCR. These tours will continue in
14 2017.

15 Finally, we've continued to work closely with the
16 Department of General Services, the master architect, and
17 various other contractors to complete the Draft
18 Environmental Impact Report, and develop the necessary
19 performance criteria for the new facilities.

20 --o0o--

21 EXECUTIVE OFFICER COREY: The accomplishments I
22 just highlighted are the foundation for our future
23 efforts. Before I walk through the specific items, I'd
24 like to briefly describe what I see as the priorities for
25 2017.

1 --o0o--

2 EXECUTIVE OFFICER COREY: This will be a critical
3 year, and one that is unprecedented in the number of
4 actions the Board will be taking to chart our course over
5 the coming years. One of our key priorities will be to
6 foster increased integration of strategies for meeting our
7 air quality, risk reduction, and climate goals to maximize
8 co-benefits.

9 These strategies will require comprehensive
10 actions to transform the technologies and fuels we use,
11 the design of our communities, and the way we move people
12 and freight through the State. And as they have in the
13 past, strong regulatory actions will drive development and
14 deployment of the cleanest near zero and zero emission
15 technologies, but strategic investments will also be
16 needed to facilitate this transition.

17 We'll also continue to strengthen our
18 environmental justice efforts and ensure that our programs
19 benefit disadvantaged communities and reduce exposure to
20 air pollutants that are still too high.

21 Finally, ARB will work with the new federal
22 administration to ensure California continues to move
23 ahead on implementing our programs.

24 My next series of slides will highlight a number
25 of challenges we'll need to address as we implement these

1 priorities.

2 --o0o--

3 EXECUTIVE OFFICER COREY: California has made
4 significant progress in improving air quality. But as
5 illustrated here, we have more work to do. Today, about a
6 third of the State's population lives in communities that
7 exceed the federal ozone and PM2.5 standards. The South
8 Coast and the San Joaquin had the 2 most critical air
9 quality challenges - meeting ozone standards in the South
10 Coast and PM2.5 standards in the San Joaquin Valley.

11 Meeting the ozone standard in the South Coast
12 will require an 80 percent reduction in NOx by 2031, 80
13 percent. ARB's draft SIP strategy released last year
14 outlines the actions necessary to achieve needed mobile
15 source reductions. These actions also support
16 California's efforts to reduce greenhouse gases, diesel
17 PM, and petroleum use in the same time frame.

18 We're also continuing to define the nature of the
19 control strategy for meeting PM2.5 standards in the San
20 Joaquin Valley. Reductions from both stationary and
21 mobile sources will be needed, given the diversity of
22 sources that contribute to PM throughout the year.

23 --o0o--

24 EXECUTIVE OFFICER COREY: Along with efforts to
25 meet air quality standards, we'll continue to implement

1 programs to reduce exposure to toxic air contaminants.
2 While emissions of air toxics have decreased
3 substantially, new health evidence shows that exposure to
4 current levels represent a greater risk than previously
5 estimated, especially for young children, we'll therefore
6 be enhancing our air toxics program to address the higher
7 risks and will provide recommendations on further actions
8 to the Board later this year.

9 And as discussed earlier, as part of AB 197 we'll
10 also be focusing on identifying opportunities for direct
11 emission reductions, particularly for addressing localized
12 risks around industrial facilities.

13 --o0o--

14 EXECUTIVE OFFICER COREY: As you heard in the
15 prior item, we released the State's proposed scoping plan
16 to reach the 2030 greenhouse gas reduction target. This
17 represents the most ambitious target in North America.
18 And finalizing that plan is critical in mapping out our
19 overall strategy.

20 The proposed plan includes actions that address
21 short-lived climate pollutants, cap and trade, and the Low
22 Carbon Fuel Standard.

23 We'll also work in partnership with the local air
24 districts, and we'll be looking for opportunities to
25 support more air quality co-benefits in its climate

1 actions going forward.

2 We also recognize the disproportionate impacts of
3 climate change on certain communities, and that equitable
4 climate action requires us to promote a low carbon economy
5 to reduce emissions and create a healthier environment for
6 California residents, especially those living in
7 disadvantaged and low income communities.

8 --o0o--

9 EXECUTIVE OFFICER COREY: Incentive programs have
10 been an important part of our portfolio to accelerate the
11 penetration to cleaner technologies across all our air
12 quality and climate initiatives. A substantial
13 enhancement in these programs will be essential going
14 forward to achieve the technology transformation needed.
15 This means that we'll need to look beyond traditional
16 State grants and subsidies and look to financing
17 California's low carbon, low NOx future in new ways that
18 take advantage of synergies between public and private
19 funding partnerships.

20 Defining the scope of funding needed and
21 assessing priorities for investments is a first step.
22 Staff will be presenting information to the Board on these
23 investments over the coming year as part of the State
24 Implementation Plans for the South Coast and San Joaquin
25 Valley, as well as in funding plans for the individual

1 incentive programs.

2 These efforts must also provide funding in low
3 income and disadvantaged communities following the
4 requirements of AB 1550, SB 350, and SB 535 to maximize
5 benefits for residents living in these communities.

6 --o0o--

7 EXECUTIVE OFFICER COREY: Our Commitment to
8 provide all Californians with healthy air and reduce
9 greenhouse gases as part of global action on climate will
10 remain our highest priority. This means continuing to
11 build our efforts on the highest technical and scientific
12 standards. We must also continue to evolve our program to
13 adopt and enforce strong emission standards, promote
14 advanced technology vehicles and equipment, and support
15 the transition to clean renewable sources of energy.

16 ARB leadership at both the national and
17 international level has advanced the science of air
18 pollution, grown the market for advanced technologies, and
19 led to countless innovations. This leadership will be
20 increasingly important. Our collaboration with EPA over
21 the last 8 years has been very productive. We look
22 forward to opportunities for continued partnership.

23 At the same time, we'll continue to use our
24 authority under the Clean Air Act and California law to
25 tackle the important work that remains, and set strong

1 emission standards that lead the nation.

2 --o0o--

3 EXECUTIVE OFFICER COREY: Now, I'll preview some
4 of the major items that will be coming the Board this
5 year.

6 --o0o--

7 EXECUTIVE OFFICER COREY: On air quality and
8 climate plans -- or rather our air quality and climate
9 plans lay out the roadmap for turning priorities into
10 action. During 2016, the Board heard updates on a number
11 of plans that highlighted the interconnected nature of our
12 public health and climate goals, and how strategies can
13 help meet multiple goals.

14 This year, the final version of these plans will
15 come to the Board for consideration. These plans will
16 provide the Board an opportunity to discuss activities
17 that will define the work of ARB for many years to come.
18 This will be especially important as we continue to
19 integrate and align strategies to maximize reductions
20 across pollutants.

21 Along with key plans, the Board will be
22 considering a number of significant regulatory actions and
23 incentive program investments.

24 And finally, the Board will hear updates on the
25 VW mitigation plans.

1 --o0o--

2 EXECUTIVE OFFICER COREY: Over the coming year,
3 the Board will consider 5 major air quality and climate
4 plans. Each of these plans draw from a climate -- a
5 common core of new strategies, along with additional
6 focused efforts to meet individual mandates.

7 Today's meeting was one of several discussions on
8 the proposed scoping plan for meeting the 2030 target. In
9 March, the Board will consider the proposed State
10 Implementation Plan, which provides the State's commitment
11 for reductions from mobile sources, fuels, and consumer
12 products to meet federal air quality standards in South
13 Coast and San Joaquin Valley. These measures will also
14 enhance air quality progress in the remaining areas of the
15 State.

16 And as required by SB 605, ARB is developing a
17 plan to reduce emissions of short-lived climate
18 pollutants. ARB released a draft plan in September of
19 2015, and the Board will consider the final plan in March.

20 And under the federal Clean Power Plan, States
21 must develop compliance plans to meet the CO2 limits. ARB
22 staff has already held several workshops and hearings on
23 the plan, and anticipates presenting a draft to the Board
24 in spring of 2017.

25 Lastly, staff will provide an informational item

1 on proposed updates to the per capita greenhouse gas
2 reduction targets under SB 375 in March with final
3 recommendations in the summer.

4 --o0o--

5 EXECUTIVE OFFICER COREY: The Board will also
6 consider 15 regional SIPs to meet federal ozone and PM2.5
7 air quality standards, 15. This map highlights the span
8 of those SIPs across the State. Two of the most
9 significant SIPs will be those of the South Coast and San
10 Joaquin that I mentioned. Now, as mentioned staff will be
11 bringing the South Coast SIP to the Board in March.

12 As directed by the Board, staff will also provide
13 updates on the status of the public outreach and
14 identification of near-term measures for meeting PM2.5
15 standards in San Joaquin Valley. An integrated SIP to
16 meet multiple PM2.5 standards will be presented to the
17 Board in fall of this year.

18 --o0o--

19 EXECUTIVE OFFICER COREY: A number of proposed
20 regulatory measures contained in this year's plans will be
21 coming to the Board initiating a substantial regulatory
22 development calendar over the next 4 years. Many of this
23 year's efforts will build on current technology and
24 efficiency standards.

25 The Board will consider the mid-term review for

1 the Advanced Clean Cars program in March. ARB's recently
2 released staff report confirms that the previously adopted
3 package of greenhouse gas standards, technology forcing
4 zero emission vehicle standards, and the most health
5 protective particulate matter standards in the world are
6 appropriate and should be maintained.

7 Staff recommendations align with EPA's final
8 determination signed on January 12. The mid-term review
9 also recommends that California's efforts now focus on
10 stronger regulations for greenhouse gas reduction beyond
11 model year 2025, and increased emphasis on a broad
12 framework to support zero emission vehicles as part of and
13 Advanced Clean Cars 2 program.

14 For heavy-duty vehicles, last October, EPA and
15 the National Highway and Transportation Safety
16 Administration released the final heavy-duty Phase 2 GHG
17 rule. Staff will bring a California Phase 2 regulation to
18 the Board this fall that harmonizes with the federal
19 program.

20 And over the course of last year, staff has been
21 working on proposed amendments to the Cap-and-Trade
22 Regulation as discussed earlier. Staff will be returning
23 to the Board in spring as well.

24 Ensuring in-use emissions performance as trucks
25 age is also critical to the control emissions -- to the

1 control of emissions from heavy-duty engines. Therefore,
2 ARB will bring enhanced warranty and opacity requirements
3 to the Board later year.

4 And lastly, because new technologies did not
5 develop as quickly as anticipated, staff will bring a set
6 of amendments for portable equipment ATCM and the PERP
7 regulation. Both amendments will contain new elements to
8 improve the enforceability of the regulatory requirements

9 --o0o--

10 EXECUTIVE OFFICER COREY: ARB staff will also be
11 setting the foundation for future regulatory actions that
12 will be coming to the Board in subsequent years. These
13 include the post-2025 requirements for advanced clean cars
14 that I mentioned that we'll be discussing more later this.

15 ARB staff has also begun work on development of a
16 mandatory low-NOx standard for heavy-duty trucks and will
17 continue to coordinate with EPA a national standard.
18 Consistent with the mobile source strategy, California
19 will develop and propose low-NOx engine standards alone if
20 the EPA does not move forward with national standards.

21 We're also developing a heavy-duty inspection and
22 maintenance program that takes advantage of the on-board
23 diagnostic systems on modern trucks.

24 Other efforts will focus on enhancing penetration
25 of zero emission technologies in the heavy-duty sector.

1 This will include last mile delivery operations and
2 approaches to achieve a comprehensive transformation of
3 California's transit systems.

4 --o0o--

5 EXECUTIVE OFFICER COREY: A strengthened focus on
6 environmental justice is an integral part of ARB's
7 activities. As discussed earlier, we are increasing our
8 outreach and enforcement efforts within environmental
9 justice communities.

10 This will include meetings with community groups,
11 and the EJAC to solicit input on our programs and how they
12 can most effectively serve the needs of disadvantaged
13 communities. We'll also be continuing to conduct targeted
14 enforcement efforts in these communities.

15 Besides outreach and enforcement, the Board will
16 hear a report on policy options for eliminating barriers
17 to zero and near zero emission transportation options in
18 low-income and disadvantaged communities.

19 And, investment plans presented to the Board this
20 year will address requirements under recent legislation to
21 dedicate higher percentages of cap-and-trade proceeds to
22 low-income and disadvantaged communities.

23 And finally, I'm pleased to report that after a
24 broad solicitation and interview process, I've appointed
25 Ms. Veronica Eady as our Assistant Executive Officer for

1 Environmental Justice. Ms Eady brings vast experience to
2 ARB. Most recently, she has been director of the
3 Conservation Law Foundation in the Massachusetts office.
4 She was associate general counsel and director of
5 environmental justice at New York Lawyers for Public
6 Interest, a nonprofit civil rights law firm in New York.

7 Veronica also served as director of the
8 Environmental Justice and Brownfields Program for
9 Massachusetts Executive Office of Environmental Affairs,
10 where she was the principal author of Massachusetts
11 environmental justice policy.

12 We're all looking very forward to have Veronica
13 join our team. She'll begin her work with us on March
14 1st.

15 --o0o--

16 EXECUTIVE OFFICER COREY: As we all know, last
17 October, the United States District Court approved a
18 partial consent decree between ARB, EPA, VW, and the
19 United States Department of Justice. The consent decree
20 partially resolves the Clean Air Act and California claims
21 against VW for equipping it's 2 liter diesel vehicles with
22 defeat devices.

23 This slide outlines the elements of that
24 agreement, the stats of both 2 and 3 liter. And
25 additional material is available on the website.

1 --o0o--

2 EXECUTIVE OFFICER COREY: Before I wrap-up, I'd
3 like to again emphasize the importance of partnerships at
4 all levels of government. The private sector and the NGO
5 community help us achieve our goals. These partnerships
6 have been a cornerstone of our success.

7 At the regional level, ARB staff has developed a
8 close relationship with the State's metropolitan planning
9 organizations. Staff continues to work closely with local
10 air districts and CAPCOA, and we've increased coordination
11 among State agencies, through our climate planning
12 efforts, the Sustainable Freight Action Plan, the ZEV
13 Action Plan, and the Clean Power Plan.

14 We plan on continued collaboration with EPA and
15 other federal agencies, and will continue to foster
16 domestic and international partnerships.

17 --o0o--

18 EXECUTIVE OFFICER COREY: I began my presentation
19 by recognizing the 50th anniversary of ARB. Because of
20 this Board's leadership, the number of premature deaths,
21 asthma cases, and lost work and school days due to poor
22 air quality continues to decline. We continue to reduce
23 emissions of toxic pollutants throughout the State, and in
24 our most vulnerable communities, as we also make progress
25 towards our climate goals.

1 This Board's efforts in 2017 will continue to
2 build on the success and set the stage for the next 50
3 years of progress.

4 This work will continue to demonstrate that clean
5 air, progress on climate, and a robust and growing economy
6 go hand in hand. And it's an honor to be part of the ARB
7 team and to work with such a committed visionary and
8 practical board.

9 And thank you. And the executive team, staff,
10 myself look forward to working with you over this coming
11 year.

12 CHAIR NICHOLS: It's a rather large and
13 comprehensive agenda. Sobering thought. A lot of work
14 obviously for the staff, but it's -- it is also well
15 organized -- the presentation was well organized to short
16 of show how things fit together, which I think is helpful.
17 It doesn't really account for all the things that come up
18 that aren't in your plan.

19 (Laughter.)

20 CHAIR NICHOLS: And they will, you can be sure of
21 that. But I think it is helpful to just know that that's
22 kind of sketched out there. So thank you for that.

23 It actually sort of flows well into the last item
24 on the item. There was no one who signed up to speak on
25 this item, which probably indicates that they're stunned.

1 (Laughter.)

2 CHAIR NICHOLS: They're stunned into silence.

3 EXECUTIVE OFFICER COREY: So well done. Nothing
4 to add.

5 (Laughter.)

6 CHAIR NICHOLS: We have a comment here from Vice
7 Chair Berg.

8 VICE CHAIR BERG: I do have a quick comment,
9 because I had the privilege of going to China just this
10 last 10 days, and attend the EV 100 conference. Alberto
11 is learning to delegate, I understand.

12 (Laughter.)

13 VICE CHAIR BERG: So he and I'll have a
14 conference later. But it was a wonderful opportunity.
15 And one of the things that was so striking, it was in
16 Beijing, we happened to land when it was beautiful blue
17 skies, and -- but every day, everybody gets up and they
18 look at the -- what the current reading for the PM is
19 going to be for that day.

20 And as the days marched on, they brought us 3M
21 masks in case the PM got worse. And we were advised day
22 by day what the air quality health levels were going to
23 be.

24 And we forget, as a young child who grew up here
25 in Southern California and used to play outside until our

1 lungs hurt, how much progress we have made. After
2 Beijing, I went to Shanghai where I did make a
3 presentation to my global industry, and I used one of
4 Richard's slides, which showed a picture of L.A. in 1947.
5 And I put that slide up at the beginning of my
6 presentation, which really was about innovation and
7 opportunity for industry.

8 And as I was talking about trends, at the end of
9 my presentation, I brought up the slide of Beijing -- I'm
10 sorry -- yeah, Beijing in 2013. And I did not put the
11 title right away. But as I brought up the title, and
12 although the air quality ozone for L.A. but PM for Beijing
13 were identical. Had you taken the titles away, you
14 wouldn't be able to tell the difference between the
15 photos, because at the end of the day, you could not see
16 the building across the street.

17 What I could tell the participants is that it
18 won't take them 50 years to clean up their air. They'll
19 be able to do it in a decade, rather than 5 decades. And
20 it really is because of the work that this fine agency and
21 our sister agencies have done. And that is a lot to be
22 proud of.

23 So congratulations, Mr. Corey. I've been through
24 13 -- I think this is my 13th state of what we're going to
25 be doing. And now I'm calming down a little bit. We have

1 a tremendous amount to do, but we're going to do it.

2 So thank you very much.

3 CHAIR NICHOLS: Thank you. I think it would be
4 great if we could also know give some attention to the
5 issue of inventories, because this is one of my -- I know,
6 it's my favorite topic.

7 (Laughter.)

8 CHAIR NICHOLS: It's -- but every thing that we
9 do depends on the quality of the information that we have.
10 And the basis of it all is the data that we collect about
11 air quality. And there's a lot of attention being focused
12 on that now, and rightly show. And one of the things that
13 one -- that AB 197 gives us an opportunity to do is to
14 think again and get others to work with us to find better
15 ways to not only collect and keep and display inventory
16 information, but also to make it available accessible to
17 the public, so that people can figure out what they're
18 actually being exposed to, which is a very important step
19 on the direction -- in the direction of empowerment of
20 people to do things about what they're -- what's affecting
21 them, so -- to take action.

22 So with that, I am going to turn this item over
23 to Mr. Corey to do a brief intro, and then we can hear the
24 staff presentation.

25 EXECUTIVE OFFICER COREY: Thanks Chair. And to

1 your point, emissions inventory is the foundation of our
2 programs here. ARB currently has 3 separate emission
3 inventory systems for smog-forming criteria pollutants,
4 toxic air contaminants, and greenhouse gases.

5 While each emissions inventory effectively
6 supports its receptive[sic] program goals, as we pursue
7 greater integration across program and pollutants in order
8 to maximize public health and climate benefits, a new
9 multi-pollutant inventory system is needed.

10 And that's what you're going to hear about. And
11 I'm going to skip down to introduce Beth Schwehr of the
12 Air Quality Planning and Science Division to give the
13 staff presentation.

14 Beth.

15 (Thereupon an overhead presentation was
16 presented as follows.)

17 STAFF AIR POLLUTION SPECIALIST SCHWEHR: Thank
18 you, Mr. Corey. Good afternoon Chair Nichols and members
19 of the Board.

20 --o0o--

21 STAFF AIR POLLUTION SPECIALIST SCHWEHR: In
22 today's presentation, I will highlight the critical role
23 that emission inventories play in all of ARB's programs.
24 As our programs increasingly take on a multi-pollutant
25 perspective, our inventories will need to evolve to meet

1 those demands. I'll therefore begin by highlighting the
2 key program needs that are driving the move towards
3 greater inventory integration, and some of the challenges
4 we'll need to address.

5 I'll then provide a closer look at current
6 inventory programs and discuss key differences between
7 various programs.

8 Finally, I'll close by describing our plans for
9 bridging those differences, and undertaking a fundamental
10 redesign of current systems into an integrated inventory
11 framework.

12 --o0o--

13 STAFF AIR POLLUTION SPECIALIST SCHWEHR: Emission
14 inventories are the foundation of all ARB programs. They
15 serve as a fundamental tool for understanding the sources
16 that contribute to our air quality and climate challenges,
17 and how those contributions change over time.

18 This information is necessary to support multiple
19 State and federal programs, including regional air quality
20 planning, toxics risk reduction, and strategies to reduce
21 greenhouse gases. They are also the starting point for
22 all regulatory development efforts.

23 Lastly, in addition to defining the focus of
24 current efforts, inventories allow us to track the
25 effectiveness of our programs and the progress that has

1 been achieved.

2 --o0o--

3 STAFF AIR POLLUTION SPECIALIST SCHWEHR: An
4 emission inventory is typically one of the first elements
5 to be developed when key mandates are established. This
6 graphic highlights the timeline of key mandates, and the
7 associated pollutants they address. As new mandates have
8 been added, we have developed and maintained emission
9 inventory systems to meet those needs.

10 Emission inventories for criteria, or
11 smog-forming, pollutants were first required with the
12 passage of the Air Pollution Control Act in 1956. And
13 over the next 3 decades, ARB's emission inventory
14 development efforts focused on these pollutants.

15 In 1983, the State legislature passed AB 1807,
16 which required ARB to identify and control toxic air
17 contaminants. Four years later, the Air Toxics Hot Pots
18 Act required us to develop an inventory for industrial and
19 commercial facilities that emit toxic substances.

20 In 2006, the California Global Warming Solutions
21 Act mandated the development of a greenhouse gas
22 inventory. An in 2008, ARB adopted the regulation for the
23 mandatory reporting of greenhouse gases, which requires
24 large greenhouse gas emitting facilities to report their
25 emissions annually.

1 Most recently, in 2016, the legislature enacted
2 AB 197 directing us to provide easy public access to
3 multi-pollutant data, and an assessment of the benefits of
4 programs across pollutants. As a result, while our
5 individual inventories for criteria pollutants, toxics,
6 and greenhouse gases have historically operated in
7 parallel, going forward they need -- must begin to work
8 together to meet new program needs.

9 --o0o--

10 STAFF AIR POLLUTION SPECIALIST SCHWEHR: One of
11 the most important aspects we need to enhance is providing
12 greater transparency about our programs, and supporting
13 communities' right to know through easier access to
14 emissions data.

15 As just mentioned, new legislative mandates under
16 AB 197 also provide a specific focus on enhancing the
17 public's ability to compare emissions of different
18 pollutants, especially from large industrial facilities in
19 their communities. An integrated inventory will also
20 better support broader efforts to understand the impacts
21 of our programs across pollutants, including adaptive
22 management assessments, and strengthen programs to
23 continue to reduce community and regional air pollution.

24 --o0o--

25 STAFF AIR POLLUTION SPECIALIST SCHWEHR: These

1 new program needs are leading to new questions about the
2 connections between pollutants. As we integrate our
3 inventories to better address these questions, we will
4 need to bridge key elements of the different systems.

5 For example, each inventory database has a unique
6 system for identifying large facilities. You have heard
7 about this challenge in recent Board discussion about work
8 done by Laura Cushing and her research partners to compare
9 greenhouse gases and criteria pollutant data at the these
10 facilities.

11 We have now found ways to better match this data
12 for the inventory visualization tool I'll be highlighting
13 in the presentation.

14 However, there are other integration aspects that
15 will require additional work to develop effective
16 solutions. Each inventory system has it own set of data
17 submittal requirements, emission methodologies, reporting
18 deadlines and frequency, and quality assurance/quality
19 control procedures developed to serve the needs of the
20 respective criteria pollutant, toxic, and greenhouse gas
21 programs.

22 The new system must be able to harmonize these
23 elements while still maintaining the ability to meet
24 individual program objectives. This greater level of
25 consistency will help us to better compare trends across

1 pollutants.

2 Improving our understanding of the causes of
3 pollutant trends and relationships between pollutants may
4 also require expanding the amount and type of information
5 we collect. Understanding how control technologies and
6 compliance options effect different pollutants will allow
7 us to better design our programs to maximize co-benefits
8 across pollutants, as well as detect and address any
9 potential localized impacts from cap and trade.

10 --o0o--

11 STAFF AIR POLLUTION SPECIALIST SCHWEHR: With
12 that as background, now let's look at the current
13 inventory programs in more detail, with a focus on key
14 differences and how that will influence our approach to
15 creating an integrated structure going forward.

16 --o0o--

17 STAFF AIR POLLUTION SPECIALIST SCHWEHR: I'll
18 start by going over the basics of emission inventories.
19 An inventory is a compilation of information regarding
20 various emission sources in a specific geographic region,
21 and the pollutants they emit over a period of time,
22 essentially it's the who, what, when, where, and how much
23 of emissions.

24 Inventory development responsibilities are shared
25 between ARB and the air districts with significant input

1 from facility operators, and several other local, State,
2 and federal agencies. Typically, an emission inventory is
3 a comprehensive accounting that includes individual large
4 facilities, on- and off-road mobile sources, area-wide
5 emissions, such as home heating and consumer products, and
6 natural sources including wildfires and biogenic emissions
7 from vegetation.

8 Inventories also reflect different points in
9 time. Current, inventories and those of prior years
10 include estimates of actual emissions. In contrast,
11 inventory forecasts represent our best estimates of how
12 emissions will change in the future, based on ongoing
13 implementation of control programs and economic and
14 demographic growth.

15 --o0o--

16 STAFF AIR POLLUTION SPECIALIST SCHWEHR: As
17 discussed earlier, each inventory was designed to meet
18 specific objectives. And the information collected under
19 each program reflects different levels of detail and
20 geographic scope based on those program objectives.

21 This slide illustrates those individual program
22 objectives. The criteria pollutant inventory covers 10
23 different pollutants, and was designed to support regional
24 air quality planning. Therefore, the data is primarily
25 collected and summarized at the regional level, but also

1 includes facility level data.

2 The toxics inventory contains data on over 200
3 air toxics. This data is summarized at the community
4 level, but includes facility-level reporting to support
5 localized risk assessments. These assessments often
6 require detailed information about individual emission
7 devices for hundreds of release points at the facility.

8 In contrast, the greenhouse gas inventory is
9 designed to meet State and global climate change
10 initiatives. It includes the major AB 32 pollutants,
11 along with short-lived climate pollutants. The overall
12 inventory is reported at the statewide level, but also
13 includes detailed reporting for large facilities to
14 support the Cap-and-Trade Program.

15 --o0o--

16 STAFF AIR POLLUTION SPECIALIST SCHWEHR: These
17 differing objectives have given rise to differing data
18 responsibilities. This simplified schematic illustrates
19 the data reporting relationships and inventory development
20 responsibilities between ARB, the air districts, and
21 facility operators.

22 Looking first at the left side of the graphic,
23 facility operators are required to report greenhouse gas
24 emissions directly to ARB, while criteria and toxic
25 pollutant emissions from these same facilities are

1 collected by air districts and then reported to ARB.

2 As shown in the middle of the slide, ARB is
3 responsible for developing criteria and toxic pollutant
4 emissions for most area-wide source categories, and for
5 mobile sources. ARB's EMFAC model, for example, is a
6 state-of-the-art system for estimating on-road emissions.
7 ARB staff also developed statewide estimates of greenhouse
8 gas emissions for all sources.

9 Data developed by each organization in each
10 sector are then combined to create the overall criteria
11 pollutant, toxics and greenhouse gas inventories as shown
12 on the right-hand side of the graphic.

13 --o0o--

14 STAFF AIR POLLUTION SPECIALIST SCHWEHR: The
15 objectives of each program have also led to different
16 reporting regulations and guidelines. The criteria
17 pollutant inventory was designed to address requirements
18 in the federal Clean Air Act as part of designing programs
19 to meet health based air quality standards. Specific
20 requirements are outlined in the National Emissions
21 Inventory guidelines that define the scope of emission
22 sources to be included, as well as reporting frequency.

23 Toxic air contaminant reporting is defined at
24 both State and federal level. This includes guidelines
25 developed to meet the requirements of AB 2588, as well as

1 rates.

2 In addition, air quality modeling and toxic risk
3 assessments require information about the location and
4 release characteristics of emissions from stacks, in order
5 to estimate downwind community impacts.

6 In contrast, greenhouse gas data are reported at
7 the overall facility level based on aggregate fuel use.
8 This level of reporting is consistent with facility level
9 compliance obligations under cap and trade.

10 The same concepts extend to the estimation of
11 mobile source emissions. Our estimates for criteria and
12 toxic emissions reflect emissions by individual vehicle
13 technology types, along with vehicle activity data
14 specific to each region of the State, while greenhouse gas
15 emissions are based on the statewide fuel use.

16 --o0o--

17 STAFF AIR POLLUTION SPECIALIST SCHWEHR: The
18 reporting frequency of emission data updates also varies
19 between the 3 programs. Criteria pollutants for large
20 facilities are updated annually, while smaller facilities
21 are generally updated triennially.

22 Other categories, such as area and mobile
23 sources, are updated periodically to support the
24 development of State Implementation Plans. These updates
25 are done to incorporate improved information on emission

1 estimation methodologies, the most recent activity data,
2 and the benefits of new control programs.

3 Toxic pollutant emissions for point sources are
4 typically updated every 4 years, although updates for
5 large facilities can occur more frequently. Other
6 categories are updated periodically to support individual
7 risk assessments.

8 The greenhouse gas inventory is updated annually
9 both for large facilities under mandatory reporting
10 regulation requirements and also at the statewide level.
11 This annual inventory is an important tool in tracking the
12 State's progress towards meeting targets established under
13 AB 32 and now SB 32.

14 --o0o--

15 STAFF AIR POLLUTION SPECIALIST SCHWEHR: The last
16 element I'd like to touch upon is QA/QC procedures for
17 facility emissions. Responsibility for review of facility
18 emissions data is split along the lines of program
19 reporting. For criteria and toxic emissions, air
20 districts have primary responsibility for ensuring data
21 quality prior to submittal to ARB with some additional
22 review conducted by ARB staff.

23 However, because greenhouse gas emissions for
24 large facilities are subject to the Cap-and-Trade Program,
25 these facilities must complete third-party verification as

1 required under the mandatory reporting regulation.

2 --o0o--

3 STAFF AIR POLLUTION SPECIALIST SCHWEHR: Each of
4 the existing inventory programs has successfully supported
5 their individual objectives. But as I discussed earlier,
6 we need to move beyond our parallel inventory processes
7 and towards an integrated system. This will represent a
8 significant change from current practices and will require
9 a substantial amount of work and resources for both ARB
10 and the air districts.

11 In the final set of slides, I'll go over the work
12 that is already underway, as well as our longer term plans
13 over the next 5 years.

14 --o0o--

15 STAFF AIR POLLUTION SPECIALIST SCHWEHR: Much of
16 our near-term work is focused on implementing the
17 requirements of AB 197. At the end of last year, we
18 released an initial version of the Integrated Emissions
19 Visualization Tool. The tool includes greenhouse gas and
20 criteria pollutant emissions for facilities reporting
21 under the mandatory reporting regulation.

22 We are now working to add toxics emission data by
23 the end of this year. One of the key challenges we will
24 need to address is how to effectively communicate the
25 different potencies of individual toxic compounds.

1 Other near-term efforts include expanding the
2 scope of the tool to include all other sectors, such as
3 mobile and area sources at the county and subcounty level
4 by the end of 2019. This task also includes assigning
5 greenhouse gas emissions to facilities that currently only
6 report criteria pollutants and toxics air contaminants.

7 We'll also continue to review emission trends in
8 support of adaptive management assessments, and improve
9 the data display and evaluation capabilities of the
10 Integrated Emissions Visualization Tool to support
11 community access and engagement.

12 --o0o--

13 STAFF AIR POLLUTION SPECIALIST SCHWEHR: We
14 provided a brief overview of the updated Integrated
15 Emissions Visualization Tool at last November's Board
16 meeting. The tool allows users to view data in a variety
17 of ways, including summaries by sector, region, and
18 community.

19 Data from the tool can also be downloaded to
20 support additional analyses. This is an initial version
21 of the integrated tool, and we are seeking input from
22 communities, facilities, and members of the public
23 regarding data displayed in the tool and ways to improve
24 accessibility.

25 --o0o--

1 STAFF AIR POLLUTION SPECIALIST SCHWEHR: The
2 visualization tool is an important first step. However,
3 in the longer term, we need to look towards redesigning
4 our current individual inventory systems into an
5 integrated database framework.

6 This new system will better connect emissions
7 data for different pollutants, thereby enhancing our
8 ability to compare trends and evaluate the impacts of our
9 programs from a multi-pollutant perspective. It will also
10 improve the efficiency of processing, reviewing, and
11 storing emissions data.

12 At the same time, we need to ensure that we
13 continue to maintain the diversity and specificity of data
14 collected to meet individual program requirements.

15 To begin the process, we will be initiating
16 efforts to evaluate how to address a number of design
17 challenges. This will include how to better harmonize the
18 timing and reporting frequency of data submittals for
19 different pollutants.

20 Reporting guidelines for criteria pollutants
21 allow for multiple methodologies for estimating emissions.
22 As a result, air districts across the State may use a
23 variety of methods for the same source category or type of
24 facility.

25 Therefore, we will be working with air districts

1 to review those methodologies and determine how we can
2 create greater consistency. We will also be enhancing the
3 review and validation of data and assessing the potential
4 for more consistent procedures and requirements.

5 Finally, we will be evaluating how best to convey
6 the relative health risk potency when displaying toxics
7 data, and how to meaningfully compare this data to
8 emissions of criteria pollutants and greenhouse gases.

9 --o0o--

10 STAFF AIR POLLUTION SPECIALIST SCHWEHR:

11 Achieving our goals for an integrated inventory
12 system will mean changes in data collection and reporting,
13 and an increased workload for air districts. Therefore,
14 we will need to work closely with districts to implement
15 this effort, while ensuring that the new system also
16 continues to support individual district program needs.

17 To improve reporting consistency, we will be
18 working with districts to update inventory guidelines, and
19 assess ways to achieve greater standardization of emission
20 estimation methodologies. This will help ensure that
21 differences or changes in methodologies don't mask overall
22 trends in the data.

23 And we'll be evaluating the need for reporting of
24 supplemental data to enhance our ability to understand the
25 causes of year-to-year changes in emissions, and better

1 connect how these factors influence different pollutants.

2 Finally, we will continue to update the user
3 interface and scope of data included in the Emissions
4 Visualization Tool. These updates will further enhance
5 data transparency and improve public engagement in
6 designing effective programs to reduce emissions in all of
7 our communities.

8 --o0o--

9 STAFF AIR POLLUTION SPECIALIST SCHWEHR: We are
10 beginning this longer-term effort in parallel with the
11 near-term efforts now underway focused on implementing the
12 requirements of AB 197.

13 As I mentioned, this long-term effort is a
14 substantial effort that will take place over the next 5
15 years. This year's focus will be on assessing user needs
16 and establishing the overall technical foundation, and
17 system requirements.

18 This will be followed by getting needed IT and
19 contracting support in place. Development of the database
20 system, along with continued coordination with air
21 districts will take place over the next 3 years with an
22 initial version of the integrated framework completed by
23 the end of 2021.

24 While this will be a large undertaking, the
25 investment will support a transition to a more

1 comprehensive, efficient, and accessible system to meet
2 our growing program needs.

3 This concludes my presentation, and we would be
4 happy to answer any questions you might have.

5 CHAIR NICHOLS: Questions. Yes.

6 BOARD MEMBER GIOIA: Thank you for the
7 presentation. I'm trying to understand the timeline of
8 when all of this will become available. It says that the
9 GHG and criteria data are -- have been released. So is
10 that data now available on the website, and where is that?
11 So in other words -- I'm familiar with the GHG inventory,
12 and you can click on a facility and get the GHG data.
13 Does that same site now have the criteria pollutant data?

14 AQPSD CHIEF MAGLIANO: That's correct. We
15 originally had a tool that just displayed the greenhouse
16 gas data for those large facilities. And at the end of
17 the year, we updated that tool and so it now displays both
18 criteria pollutant and greenhouse gas data to that same
19 general tool mechanism. And I believe actually if you go
20 to our home page, there is a link on the left side and you
21 can go directly to that.

22 BOARD MEMBER GIOIA: So I was going to ask, it is
23 accessible, because the last -- when I was trying to find
24 the GHG, it was sort of hard to find. So it is now
25 accessible on the home page.

1 AQPSD CHIEF MAGLIANO: Yes.

2 BOARD MEMBER GIOIA: On the left.

3 AQPSD CHIEF MAGLIANO: And so that is part of the
4 broader accessibility --

5 BOARD MEMBER GIOIA: Great.

6 AQPSD CHIEF MAGLIANO: -- is getting people to
7 the information they need more easily.

8 BOARD MEMBER GIOIA: Yes, I think that's
9 important. And so it has -- and it has all the updated
10 criteria data, which was really collected by the local air
11 districts, and then provided to ARB, and, of course, the
12 GHG data that we've collected. And then the toxics data
13 looks like will be at the end of this year.

14 AQPSD CHIEF MAGLIANO: That's right. So we'll be
15 working with the local air districts as part of adding
16 that. And as we mentioned during the presentation, one of
17 the key things will be -- you know, given that there are
18 hundreds of individual toxic air contaminants, how do we
19 sort of meaningfully display that data within this tool,
20 so that people can really use it to understand what's
21 going on in their community?

22 BOARD MEMBER GIOIA: So the -- and the criteria
23 date is collected how -- how frequently is this collected?
24 It's...

25 AQPSD CHIEF MAGLIANO: It varies on the source.

1 For the largest point facilities --

2 BOARD MEMBER GIOIA: Annual.

3 AQPSD CHIEF MAGLIANO: -- it is updated annually.
4 Smaller ones tend to be on every 3 year basis.

5 BOARD MEMBER GIOIA: So it -- just to understand,
6 it's the cumulative -- it's the cumulative number for a
7 facility, adding up all the pieces of equipment and all
8 the emission sources at that facility, correct?

9 AQPSD CHIEF MAGLIANO: That's correct.

10 BOARD MEMBER GIOIA: You know what would be
11 useful is also looking at how to link with some air
12 districts, like in the Bay Area we are ramping up
13 real-time data, air monitoring data, from stationery
14 sources. You would be -- it would be good if this could
15 link to those, so that there's one place people could go,
16 so there's not many places, is that possible?

17 AQPSD CHIEF MAGLIANO: That was actually
18 something we were just having a staff discussion about
19 this morning. In terms of, you know, a longer term time
20 frame as we're starting to make more and more
21 community-based information available, how do we link all
22 of that together? It's certainly something we need to
23 spend some time thinking about, but, you know, making all
24 of that data more successful -- accessible is a long-term
25 goal.

1 BOARD MEMBER GIOIA: Okay. And finally, it's
2 always useful to provide some interpretation or
3 explanation of what that data means. We've had this
4 discussion locally about real-time air monitoring data.
5 It's useful to put the raw data out there, but it's useful
6 also to have what the means from a public health
7 perspective, because I think we have to under -- you know,
8 try to provide the greatest useful information to
9 residents who would look this up. How would we consider
10 doing that?

11 AQPSD CHIEF MAGLIANO: We've started looking at
12 that in terms of including some additional notes fields
13 and documentation for the tool. But it's something we
14 want to continue to partner with the local air districts
15 on as you look at individual facilities, you know, how can
16 we talk about what some of the factors that are associated
17 with changes in emissions in that facility and how you
18 interpret that.

19 So I think you're right it's very important to
20 have that information alongside with just the individual
21 data points themselves.

22 BOARD MEMBER GIOIA: Okay. Thank you.

23 CHAIR NICHOLS: Yes. Ms. Mitchell.

24 BOARD MEMBER MITCHELL: Thank you for the report.
25 I thought I heard in your presentation that the emissions

1 inventory for air toxics is every 4 years. Was that
2 correct?

3 AQPSD CHIEF MAGLIANO: That's correct. Some of
4 the larger sources are updated more frequently than that,
5 but sort of the nominal update period is every 4 years.

6 BOARD MEMBER MITCHELL: I'm just wondering about
7 that, because air toxics are so toxic and we've had some
8 issues in my district on air toxics. So is it difficult
9 to release that more frequently or -- I'm just wondering.
10 Every 4 years seems a long time.

11 AQPSD CHIEF MAGLIANO: It does. And obviously,
12 because air toxics is also data that's collected at the
13 air district level, I think that's something that we want
14 to continue to work with on the air districts looking at
15 the resources and the workload associated with that on how
16 we can potentially look at having more frequent updating
17 across all 3 of the programs that we have.

18 DEPUTY EXECUTIVE OFFICER KARPEROS: If I may add.
19 Some of the districts, in the South Coast in particular,
20 because there are so many toxics and there is so much
21 inventory information, it reports a quarter of its
22 facilities every year. So every 4 years, a facility gets
23 revisited.

24 And that is one of the issues that we're talking
25 about in terms of the harmonization of the reporting

1 period. For both ourselves, but a member of the public
2 coming on and looking at the inventory data, they're
3 comparing a greenhouse gas data point that was refreshed
4 last year, and the toxics data may be 3, 4 years out of
5 date, as it were, or out of synch.

6 And so trying to understand the relationship
7 between those 2 without a lot of caveat pages, as Mr.
8 Gioia was referring to, is very difficult. So those are
9 the types of things we're trying to tackle here.

10 BOARD MEMBER MITCHELL: Okay. Thank you.

11 CHAIR NICHOLS: Yes. Ms. Berg

12 VICE CHAIR BERG: You know it occurred to me, as
13 I was listening to Ms. Mitchell, there is also an issue of
14 permits. And these facilities are given permits that
15 allow them to have a certain amount of emissions. So how
16 do we tie the expectation of what's being allowed versus
17 what's actual? You might have a facility that actually is
18 permitting half as much. Maybe, they've done some things
19 to bring their emissions down. You might have some
20 facilities that are bumping up and running at capacity,
21 because they're using their equipment to full capacity.

22 So as we're talking about how to present data
23 it's so important to remember expectation. Transparency
24 is critical, but if we're not educating and setting
25 expectation, you know, one metric of something might sound

1 too much versus, you know, 100.

2 So as you're looking at this, I do think that
3 expectation is really important, and to remember that
4 we're not looking to find villains. We are trying to look
5 at how to create the sense of getting people to reduce
6 their emissions.

7 And certainly, we're looking for the bad actors.
8 I know in your area not too far from my plant, there was
9 some very bad actors. But we still, given even all of our
10 measuring and all of our information, the bad actors seem
11 to be able to stay out there longer than they should.

12 So it will be interesting to see how this all
13 unfolds.

14 Thank you.

15 CHAIR NICHOLS: So I have dreams that go well
16 beyond even what's been discussed here about what could
17 come from this inventory project. And I realize that we
18 have -- what we've already bitten off is very ambitious
19 and it will be -- it will take time, and it will take
20 coordination, and it will take resources.

21 But, you know, we've heard -- I certainly have
22 been hearing since the moment I got to ARB in the 2007
23 incarnation about new ideas, about risk-based standard
24 setting, and new kinds of monitors that are available that
25 can do personal monitoring, or much more small scale and

1 less expensive air monitoring.

2 And I think we're not so far from a time when
3 we're going to be looking at different ways of actually
4 setting standards. And especially when we work
5 internationally, that the whole idea of, you know, setting
6 up the kind of very expensive, very equipment-based
7 monitoring system that we have built and relied on in this
8 country, which has served as very well isn't going to work
9 for other parts of the world, where they can't possibly
10 make those kinds of investments in the time frame that's
11 needed to actually get results.

12 So I'm thinking about having a -- you know, how
13 we can design a system that is compatible with citizen
14 monitoring, and still has enough quality assurance in it,
15 so that you don't just put up anything that anybody sends
16 you, but you now have the ability to actually check it
17 before it goes in there, and how you can find different
18 ways to look at the data, that -- at the moment, it seems
19 as though we're just focused on facilities, but there's
20 real a lot more questions that we're going to want to ask
21 about the information that we have in the future.

22 And so I am hoping that we can continue to sort
23 of keep our eyes open to some of those possibilities, as
24 we start to build this system as well. I know there are
25 some very smart people both at ARB and at the districts

1 who are thinking about those things. So it actually is an
2 exciting time to be thinking about data.

3 BOARD MEMBER MITCHELL: So one of the things
4 that's happening are there's now in development these low
5 cost monitors that an individual can purchase. And I
6 think the dilemma for air districts is the reliability of
7 those, and do they -- are they properly synchronized with
8 the data that we keep, and the data we analyze?

9 So our district is looking at that, but it's both
10 good and scary, I would say.

11 CHAIR NICHOLS: Yeah. Well, that's consistent
12 with everything else that's going on.

13 (Laughter.)

14 CHAIR NICHOLS: Why should this be different?

15 Okay. Probably enough speculating on that front.

16 We had one person who actually signed up to speak
17 on this topic. Fariya Ali from PG&E. Hi.

18 MS. ALI: Good afternoon.

19 CHAIR NICHOLS: No, I think it's just -- hold it
20 just a second.

21 MS. ALI: Thank you. Good afternoon. I'm Fariya
22 Ali with PG&E. And I am privileged to be the only speaker
23 on this item.

24 (Laughter.)

25 MS. ALI: I'll try to be quick. PG&E is

1 committed to providing safe, affordable, reliable energy
2 to our customers. And in the same vein as the IEVT, the
3 Integrated Emissions Visualization Tool, we work to
4 empower our customers with data tools that help them
5 understand and manage, in our case, their energy usage.

6 For the IEVT, we would just like to note and echo
7 some of the points that the Board members have actually
8 already made. And the first one is that we're aware that
9 some of the data for some of the facilities was actually
10 found to be inaccurate. And we're conducting a review of
11 the data affiliated with our facilities, and we'll make
12 sure to provide those findings to ARB, so that any
13 necessary updates for accuracy can be made.

14 And so far, staff has been very responsive and
15 cooperative in recognizing the obvious concerns around
16 accuracy and we really appreciate that.

17 One other important consideration for the IEVT is
18 the context in which emissions information is provided.
19 And right now, the tool does a good job of showing raw
20 numbers and trends. However, what it doesn't show is
21 whether the raw numbers are, for example, within the
22 permit limits established on a scientific basis for the
23 health of the community and the environment.

24 Additionally, there is no comparison to other
25 non-stationary source emissions, which could contribute

1 greatly to the State's local air pollutant emissions.
2 Energy sector facilities account for about 10 percent of
3 GHG emissions in the State, but a mere 0.3 percent of
4 criteria pollutant emissions.

5 And in many cases, for example, like a nearby
6 freeway would be responsible for a far greater amount of
7 criteria emissions than a power plant.

8 So when people see a number other than 0, they
9 should have some help understanding what it really means.
10 And the tool also does not speak to many legitimate
11 reasons why some categories of emissions at a facility
12 might go up for a year or 2, for example, when a natural
13 gas plant as to run more frequently to keep the lights on
14 when there is less water to generate hydro-energy because
15 of a drought.

16 I know that staff is aware of these issues. And
17 PG&E would like to work with ARB to ensure that community
18 members, who want to use this tool, have the context to be
19 able to appropriately interpret this data.

20 We're developing a few recommendations that we
21 think would be useful in informing the public, and we look
22 forward to sharing them with you soon.

23 Thank you very much.

24 CHAIR NICHOLS: Thanks. And thanks for your
25 participation, especially in thinking about how to display

1 some of these disparate kinds of data. So that's good.

2 All right. No additional comments on this one.

3 No public comment, in general --

4 BOARD MEMBER GIOIA: I have a couple comments.

5 CHAIR NICHOLS: -- then I think --

6 BOARD MEMBER GIOIA: I was going to make one
7 closing comment.

8 CHAIR NICHOLS: Okay.

9 BOARD MEMBER GIOIA: I don't want to embarrass
10 anybody --

11 CHAIR NICHOLS: No, please do.

12 BOARD MEMBER GIOIA: But I understand this is the
13 last meeting for our Legislative Director Jennifer Gress.
14 And so I wanted to acknowledge her. I mean for those of
15 us who also had Jen help coach us through the confirmation
16 process - and there's a few of us that fall in that
17 category - she's an amazing resource, and obviously been
18 part of the success of the agency and working with
19 legislators. And I just wanted to acknowledge that.

20 And, you know, after your years also of being
21 staff for the Senate Transportation Committee, you're now
22 going to city government. So you're going to take all
23 these State skills and make a difference here in
24 Sacramento with Mayor Steinberg. So I just wanted to
25 acknowledge I appreciate, you know, all of your resource

1 help over the last, almost, 4 years now.

2 CHAIR NICHOLS: Well, I think we could make that
3 unanimous. And you're so right, I, unfortunately, am
4 still in denial on this issue.

5 (Laughter.)

6 CHAIR NICHOLS: So -- but, you know, she -- Jen
7 is taking on a wonderful assignment for the City of
8 Sacramento working on transportation and housing issues,
9 which I know are very dear to her heart and an important
10 position with the new Mayor who knows a thing or two about
11 us, about air quality also.

12 BOARD MEMBER GIOIA: Yes.

13 CHAIR NICHOLS: So that will be good.

14 BOARD MEMBER SERNA: Chair Nichols, if I could?

15 (Applause.)

16 CHAIR NICHOLS: Yes, anybody else who wants to
17 pile it on and embarrass her, please feel free.

18 BOARD MEMBER SERNA: Yeah, I, too, wanted to make
19 some remarks about -- and applaud Jennifer her years of
20 service here, and the fact that I'm the person on this
21 Board that is probably going to intersect with her the
22 most in terms of her new -- her new role with local
23 government and the City of Sacramento.

24 But that doesn't mean I'm going to stop calling
25 you by your nickname. So as Supervisor Gioia mentioned,

1 she has helped many of us prepare for our Senate
2 confirmation hearings. So my nickname for Jen is Dr.
3 Prepper.

4 (Laughter.)

5 CHAIR NICHOLS: We may have to come up with
6 some way to memorialize that.

7 (Laughter.)

8 CHAIR NICHOLS: That's great. Very funny.
9 All right. I think -- yes. All right. Please.

10 BOARD MEMBER SHERRIFFS: Yeah, I have a different
11 landmark that I'd like to mention. Jen, thank you very
12 much. Dr. Prepper you were great. Really appreciate it.

13 (Laughter.)

14 CHAIR NICHOLS:

15 BOARD MEMBER SHERRIFFS: Dr. Overprepper, which
16 is the way to be. Thank you.

17 (Laughter.)

18 BOARD MEMBER SHERRIFFS: You know, I hope you're
19 not tired of hearing about my EV vehicle.

20 CHAIR NICHOLS: Oh, no. Let's hear more.

21 (Laughter.)

22 CHAIR NICHOLS: Please. How do you like your EV?

23 (Laughter.)

24 BOARD MEMBER SHERRIFFS: You know, I'm pleased
25 when I get to do errands, when I go to work, when I'm

1 doing recreation in my all-electric vehicle. No emissions
2 when I'm idling. I'm proud of all we've been able to do
3 to support that technology and advance it.

4 You know, this year, we've got, what, over 5
5 vehicles now over 200 miles, which is something of a game
6 changer. But a reminder, especially perhaps for you
7 testosterone-charged people, an electric vehicle just
8 completed the Dakar rally.

9 And there's some nods. So you know a little
10 about that. So the Dakar rally it's off road. It's
11 endurance. 5600 miles, an electric vehicle. And some are
12 short, but there -- there's I think a 500-mile leg of this
13 thing. Okay.

14 So magic how they do it, right? Well, they've
15 got 6 different batteries and they can charge them
16 separately. And it's amazing, but I think, you know, it's
17 another sign of how far we've come that indeed there is an
18 all-electric vehicle that has been able to complete --
19 compete successfully in such an event, and more in the
20 future.

21 Thank you.

22 CHAIR NICHOLS: Okay. Any other parting remarks?

23 Hearing none, we are adjourned.

24 See you all in February.

25 (Thereupon the Air Resources Board

adjourned at 4:38 p.m.)

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C E R T I F I C A T E O F R E P O R T E R

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

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

IN WITNESS WHEREOF, I have hereunto set my hand this 7th day of February, 2017.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
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