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BEFORE THE CALIFORNIA ENERGY COMMISSION

ADVISORY COMMITTEE MEETING

AND PUBLIC WORKSHOP

In the Matter of:) Docket No. 16-ALT-02
)
2017-2018 Investment Plan)
Update)

Meeting and Public Workshop re: Alternative and Renewable
Fuel and Vehicle Technology Program

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

FRESNO OFFICE

1990 GETTYSBURG AVENUE
FRESNO, CALIFORNIA

THURSDAY, FEBRUARY 16, 2017

10:00 A.M.

Reported by:
Martha Nelson

APPEARANCES

Advisory Committee Members

Janea Scott, Lead Commissioner
Joe Gershen, California Biodiesel Alliance
Bill Robertson, California Air Resources Board
Joy Alafia, Western Propane Gas Association
Eileen Tutt, California Electric Transportation Coalition
Shannon Baker-Branstetter, Consumers Union
Peter Cooper (via WebEx), California Employment Training
Panel
Brian Goldstein (via WebEx), Energy Independence Now
Ralph Knight (via WebEx), Napa Valley Unified School
District
Steve Kaffka (via WebEx), University of California, Davis
Justin Ward (via WebEx), California Fuel Cell Partnership
John Shears (via WebEx), Center for Energy Efficiency and
Renewable Technologies
Claire Jahns (via WebEx), California Natural Resources
Agency
Sekita Grant (via WebEx), Greenlining Institute
Tyson Eckerle (via WebEx), GoBiz
Thomas Lawson (via WebEx), California Natural Gas Vehicle
Coalition

Staff

John Kato, Fuels and Transportation Division Deputy
Director
Jacob Orenberg, Project Manager
John Butler, Office Manager
Justin Regnier

Public Adviser

Alana Matthews

Public Comment

John Boesel, CALSTART
Brenda Turner, Project Clean Air/San Joaquin Valley Clean
Cities Coalition
Mark Roest (via WebEx), SeaWave Battery, Inc.

APPEARANCES

Public Comment

John Schott, ChargePoint

Dante Sanson, San Joaquin Valley Air Pollution District

R. Bong Vergara (via WebEx), USC Suzanne Dworak-Peck

School of Social Work

John Petries (via WebEx), Odyne Systems

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P R O C E E D I N G S

FEBRUARY 16, 2017 10:01 A.M.

COMMITTEE MEMBER SCOTT: Welcome to our members of the public. We're glad to have you here. We don't have mikes. So if any of us start talking a little quietly, just let us know that we need to talk a little louder and we will be sure to do so.

Good morning, Eileen.

COMMITTEE MEMBER TUTT: Hi.

COMMITTEE MEMBER SCOTT: Please come join us.

COMMITTEE MEMBER TUTT: Anywhere or --

COMMITTEE MEMBER SCOTT: Sure, anywhere works. Actually, if you could come near one of the mikes, you and Joe, that would be fantastic, because this is how the people on the WebEx will hear us.

COMMITTEE MEMBER TUTT: I see.

COMMITTEE MEMBER SCOTT: So this is the second workshop on our ARFVTP, the Alternative and Renewable Fuels and Vehicle Technology Program Investment Plan. So we've gathered together our Advisory Committee, and we'll do introductions in just a moment.

1 I just want to say thank you so much to
2 the San Joaquin Valley Air Pollution Control
3 District for hosting us here today. We're really
4 excited to be here having our meeting.

5 So for the folks to the phone, this is
6 Commissioner Janea Scott. I'm the Lead
7 Commissioner on this transportation.

8 And so let us introduce to you the
9 Advisory Committee Members and the staff that we
10 have at the table, and then we'll turn to see
11 who's on the WebEx. And then I'll hand it over
12 to Jacob to kick off the meeting

13 So, Joe, you want to start?

14 COMMITTEE MEMBER GERSHEN: Joe Gershen
15 with the California Biodiesel Alliance.

16 COMMITTEE MEMBER ROBERTSON: I'm Bill
17 Robertson with California Air Resources Board.

18 COMMITTEE MEMBER ALAFIA: Joy Alafia with
19 the Western Propane Gas Association.

20 COMMITTEE MEMBER TUTT: And Eileen Tutt
21 with the California Electric Transportation
22 Coalition.

23 COMMITTEE MEMBER SCOTT: Good morning.
24 Welcome.

25 And then I have a list of people that I

1 think will be on the phone. So rather than have
2 you all speak at the same time and jump over each
3 other, I'll just kind of do a quick roll call.
4 So if you are there, please un-mute yourself so
5 that we can hear you.

6 Do I have Shannon Baker Shannon Baker-
7 Branstetter on the phone from the Consumers
8 Union? Are you here?

9 MR. REGNIER: Sorry. I think we've got
10 folks --

11 COMMITTEE MEMBER SCOTT: Oh, sorry.
12 We're un-muting folks still. Hold on just a
13 second.

14 MR. REGNIER: We are un-muted. Yeah,
15 we're un-muted.

16 (Colloquy)

17 COMMITTEE MEMBER SCOTT: Okay. Give us
18 just one more minute. We're un-muting folks on
19 the WebEx. Okay.

20 Shannon, if you are there, please speak
21 up?

22 MR. REGNIER: Sorry, we're still un-
23 muting.

24 COMMITTEE MEMBER SCOTT: Oh, I'm sorry,
25 we're still --

1 COMMITTEE MEMBER BAKER-BRANSTETTER: Hi,
2 this is Shannon. Can you hear me?

3 COMMITTEE MEMBER SCOTT: Yes, I can.
4 Good morning, Shannon.

5 COMMITTEE MEMBER BAKER-BRANSTETTER: Good
6 morning.

7 COMMITTEE MEMBER SCOTT: Sorry, still un-
8 muting.

9 MR. REGNIER: They should be.

10 COMMITTEE MEMBER SCOTT: Okay. Now
11 everyone should be un-muted.

12 Shannon, I heard you there.

13 Thomas Lawson, do we have you on the
14 WebEx? Okay. It sounds like he's not there yet.

15 Will Coleman, are you on the WebEx?

16 (Background WebEx conversation.)

17 And actually, if you are not one of the
18 Advisory Committee Members and you're
19 participating by WebEx and can mute yourself,
20 that would help us find our Advisory Committee
21 Members. Except they're all talking so they
22 probably couldn't hear me. All right.

23 Peter Cooper, do we have you on the
24 WebEx?

25 COMMITTEE MEMBER COOPER: Yes, I'm on the

1 WebEx. Yes.

2 COMMITTEE MEMBER SCOTT: Hi. Good
3 morning, Peter.

4 Tyson Eckerle, are you on the WebEx?

5 Do I have Brian Goldstein, are you on the
6 WebEx?

7 COMMITTEE MEMBER GOLDSTEIN: I'm on the
8 public call-in. The Advisory link won't work for
9 me.

10 COMMITTEE MEMBER SCOTT: Oh, okay. We
11 can maybe have some folks try to troubleshoot
12 that for you, but good morning, Brian.

13 Sekita, are you on the WebEx, Sekita
14 Grant?

15 (Background WebEx conversation.)

16 COMMITTEE MEMBER SCOTT: Someone's giving
17 us their whole -- so folks, if you're on the line
18 and have not had -- are not an Advisory Committee
19 Member, if you will please mute yourself, that
20 would be great. We are hearing your
21 conversations here in the room.

22 Claire Jahns, do I have you on the WebEx?
23 Not yet.

24 Steve Kaffka?

25 How about Ralph Knight?

1 Howard Levenson?

2 Maybe I should have started a couple
3 minute late.

4 Anne McMonigle?

5 Jananne Sharpless, do I have you on the
6 line?

7 John Shears, are you there?

8 Okay. And if there's any Advisory
9 Committee Member that I did not call but is on
10 the line, please speak up.

11 (Colloquy)

12 COMMITTEE MEMBER SCOTT: Okay. And so
13 what we'll try to do is leave the Advisory
14 Committee Members, if you can make sure that you
15 sign into the WebEx with your name so that we
16 know it's you, we will leave you un-muted so that
17 you can participate in the dialogue, and we'll
18 mute everyone else. And then we'll maybe go back
19 through after Jacob's presentation to see whether
20 we've had some other folks join us.

21 But now I'd like to turn this over to
22 Jacob Orenberg.

23 MR. ORENBURG: Thank you, Commissioner
24 Scott.

25 Good morning, everyone. My name I Jacob

1 Orenberg, and I'm the Project Manager for the
2 2017-2018 Investment Plan Update for the
3 Alternative and Renewable Fuel and Vehicle
4 Technology Program.

5 The purpose of today's workshop is to
6 discuss the recently released revised Staff
7 Report of the Investment Plan Update.

8 Before we begin, I do need to note that
9 this workshop is being recorded and a transcript
10 will be made available on the Energy Commission's
11 website.

12 To start, I'd like to thank all of our
13 ARFVTP Advisory Committee Members for their
14 dedication in helping us to develop the
15 Investment Plan and the program, and for
16 generously sharing their time and expertise with
17 us. Your participation in these workshops and
18 with the Investment Plan development process
19 provides us with invaluable knowledge and
20 perspective, so thank you very much.

21 At this point, I'll turn the meeting over
22 to the Energy Commission's Public Adviser Alana
23 Matthews, who would like to say a few words. And
24 she's just walking up to the podium right now.

25 So thank you, Alana.

1 MS. MATTHEWS: Good morning. I just have
2 a few housekeeping items that I wanted to share
3 with everyone.

4 First, the restrooms are out these two
5 doors and down the -- to the left, down the
6 hallway. You'll see signs. Emergency exits are
7 at the front and back of the room. And Staff
8 here will come direct us out in case there is an
9 emergency.

10 We do have public access Wi-Fi. You just
11 need to select sjvone, spelled out O-N-E.

12 For public comment, if you'd like to make
13 a comment, just fill out one of the blue cards.
14 We have some against the wall, as well as in the
15 back on the Public Adviser's table, and bring it
16 to me. We usually take public comment from those
17 who are in the room first, and then we'll switch
18 to those who are on the phone to provide comment.

19 We also have a survey. As you know, we
20 have a diversity initiative at the Energy
21 Commission where we're trying to make sure all
22 Californians can participate. So we appreciate
23 everyone who completes a survey today.

24 And then lastly, for those who are making
25 comment or speaking, as Jacob mentioned, this is

1 being recorded, as well as transcribed. So it's
2 very, very important that everyone who speaks,
3 introduce yourself so that we can have a good
4 record of who is speaking, even if you are
5 speaking, you know, multiple times. It may seem
6 kind of weird, but it certainly helps our court
7 reporter provide an accurate record when you
8 state your name.

9 And those who are the phone, I noticed
10 you were coming through a little soft. So please
11 speak up as loud as you can so that we can ensure
12 everyone on the room can hear you, as well as
13 those who are on WebEx.

14 Thank you.

15 MR. ORENBERG: Thank you, Alana.

16 COMMITTEE MEMBER TUTT: Just is there a
17 Wi-Fi in this room?

18 MS. MATTHEWS: Yes. It is sjvone.

19 COMMITTEE MEMBER TUTT: Okay. Thank you.

20 MR. ORENBERG: All right. Our meeting
21 today will follow the agenda on this slide.
22 Right now we'll start the presentation on the
23 development of the 2017-2018 Investment Plan
24 Update.

25 At about 10:30, we'll move on to the

1 Advisory Committee Member discussion on each
2 allocation. And after each discussion, we will
3 also take public comment. Since we have a lot to
4 cover today with many interested stakeholders, we
5 request that public comments are kept to three
6 minutes or less.

7 At noon, we're planning to break for
8 lunch and reconvene an hour later at 1:00 p.m.,
9 at which time we will continue the Advisory
10 Committee Member discussion.

11 Finally, we'll have another period for
12 public comment at the end of the workshop.

13 To provide some context for the ARFVTP,
14 this slide shows some key statistics for the
15 California transportation sector. Statewide, we
16 have over 28 million light-duty passenger cars
17 and trucks on the road, as well as about 1
18 million medium- and heavy-duty trucks.

19 In 2014, California generated over 440
20 million metric tons of carbon dioxide-equivalent
21 greenhouse gases, and 37 percent of this was from
22 the transportation sector. In addition, many
23 regions in California struggle with poor air
24 quality, most notably with the San Joaquin Valley
25 and the South Coast Air Basins being the only two

1 regions in the country that are in severe
2 nonattainment for Federal Ozone Standards. Also,
3 the California transportation sector consumed
4 14.5 billion gallons of gasoline and 3.6 billion
5 gallons of diesel fuel in 2015.

6 The ARFVTP was set up to help remedy
7 these problems, and specifically to develop and
8 deploy innovative technologies that transform
9 California's fuel and vehicle types to help
10 attain the state's climate change policies. In
11 addition, we also have the complementary goals of
12 improving air quality, increasing alternative
13 fuel use, reducing petroleum dependence, and
14 promoting economic development.

15 The ARFVTP was established California
16 Assembly Bill 118 back in 2007. The program is
17 funded through a small surcharge in California
18 vehicle registrations, which gives us a budget of
19 up to \$100 million per year, depending on how
20 much is collected from the surcharge. Originally
21 the program was scheduled to end in 2016.
22 However, California Assembly Bill 8 extended it
23 through January 1st, 2024.

24 The Annual Investment Plan Update serves
25 as the basis for all solicitations, agreements

1 and other funding opportunities for each fiscal
2 year. The document is vetted through a public
3 review process that involves four iterations of
4 the document and two meetings with our Advisory
5 Committee, the second of which we're holding
6 today.

7 The allocations described in the
8 Investment Plan are for general project
9 categories and provide an overview of the status
10 of the fuel or technology and its potential over
11 the coming fiscal year. These specific
12 requirements of what we ultimately fund are
13 determined by each funding solicitation and not
14 by the Investment Plan.

15 To date, the Energy Commission has
16 provided almost \$635 million in funding through
17 the ARFVTP. About 24 percent of this has gone to
18 biofuel production and distribution. Another
19 combined 35 percent has gone to electric vehicle
20 infrastructure, light-duty electric vehicle
21 incentives, medium- and heavy-duty electric
22 vehicle demonstrations, and electric vehicle and
23 component manufacturing; 18 percent of the
24 funding has gone to hydrogen refueling
25 infrastructure and vehicle demonstrations, 15

1 percent to natural gas fueling infrastructure and
2 vehicles, 1 percent to propane vehicles, and the
3 remaining 7 percent to projects that either
4 incorporate multiple fuel types or do not address
5 specific fuel types.

6 COMMITTEE MEMBER SCOTT: Jacob, can we
7 pause just for a minute. Some of the Advisory
8 Committee Members are having a hard time signing
9 in. And what they got says, "Your email address
10 does not match any of panelists email address
11 specified by event host. Please reenter or
12 contact event host." Does that help?

13 MR. ORENBERG: So they should probably
14 log in as a regular attendee.

15 MR. REGNIER: Yeah.

16 MR. ORENBERG: And then we can promote
17 them to a panelist once they're logged in. Just
18 please make sure, for all the Advisory Committee
19 Members, please make sure that you use your full
20 name so we can identify you. And we have a list
21 of the entire Committee.

22 COMMITTEE MEMBER SCOTT: Okay. Perfect.
23 So I don't know if they were on the line to hear
24 that, but we will try to get that message out to
25 the Advisory Committee Members. If you're on the

1 line, you heard what Jacob just said, please just
2 sign in as a regular member of the public but
3 make sure that you put your name on there so they
4 can un-mute you, so we can hear you as we have
5 our Advisory Committee discussion. And we
6 will -- just shoot an email or to John Kato or to
7 me, this is Commissioner Scott, and we'll keep
8 helping to troubleshoot and get you on the line.

9 MR. ORENBERG: To demonstrate its
10 commitment to diversity, the Energy Commission
11 adopted a resolution during the April 2015
12 business meeting to firmly commit to increasing
13 the following: The participation of women,
14 minority, disabled veteran and LGBT business
15 enterprises and program funding opportunities;
16 outreach and participation by disadvantaged
17 communities; diversity and participation at
18 Energy Commission proceedings; and diversity in
19 employment and promotional opportunities.

20 The Energy Commission is also committed
21 to taking steps toward broadening the pool of
22 applicants to our various programs, especially
23 underrepresented groups, disadvantaged
24 communities, and small businesses. Workshops
25 such as these are part of a continuing effort to

1 encourage diversity and participants for Energy
2 Commission programs which will help to ensure
3 equitable access to Energy Commission funding,
4 create jobs and provide economic stimulus in
5 under-represented and disadvantaged communities,
6 increase competition to ensure the best
7 opportunities are identified and funding, and
8 ensure that local needs are identified and
9 addressed.

10 The schedule we'll be following for the
11 2017-2018 Investment Plan Update is outlined on
12 this slide. We released the draft Staff Report
13 on October 17th, and held the first Advisory
14 Committee meeting on October 27th. We
15 subsequently released the revised Staff Report on
16 January 9th, after reviewing and incorporating
17 the public comments we received. And today we're
18 hosting the second Advisory Committee meeting.

19 Our next step will be to release the Lead
20 Commissioner Report in March, and then seek
21 business meeting approval for the final documents
22 at the April business meeting.

23 These are few key considerations worth
24 mentioning with have had a notable impact on this
25 Investment Plan Update. In June, ARB reached an

1 agreement with Volkswagen regarding the sale of
2 diesel vehicles that violated emissions tests.
3 The deal, totaling over \$1.2 billion, includes
4 \$800 million over a period of ten years that will
5 go towards zero-emission vehicle programs,
6 including electric vehicle charging stations, and
7 possibly even hydrogen refueling infrastructure.
8 We expect this to have an impact on our
9 infrastructure funding strategy, once VW's own
10 investment plan is finalized. And we expect this
11 to occur as early as March.

12 In addition, the legislature allocated
13 \$368 million in greenhouse gas reduction funds to
14 the Air Resources Board, and \$150 million of this
15 is earmarked for their Low Carbon Transportation
16 Investments Plan for Fiscal Year 2016-2017. Some
17 of the sectors funded with these investments
18 overlap with ARFVTP activities, which I'll
19 discuss later in this presentation.

20 In July, the California Sustainable
21 Freight Action Plan was published with the
22 intention of improving freight efficiency,
23 transitioning to zero-emission technologies, and
24 increasing the competitiveness of California's
25 freight system. The ARFVTP is taking a

1 significant role in carrying out the strategies
2 and actions assigned to the Energy Commission in
3 the plan.

4 Also in July, ARB released the 2016
5 Annual Evaluation Report for Hydrogen
6 Development. And in January of this year the
7 Energy Commission released the second Joint
8 Agency Staff Report on Assembly Bill 8. Both of
9 these reports provide guidance to the Energy
10 Commission for hydrogen refueling station
11 deployment.

12 For the revised Staff Report, we have not
13 made any changes to the proposed funding
14 allocations. However, other parts of the report
15 have been changed. This included updating all of
16 the program statistics, which are now accurate as
17 of December 15th, 2016.

18 We've also expanded the discussion on
19 program benchmarks in chapter two, which now
20 provides background information and explains how
21 we're planning to develop the benchmarks. We
22 don't anticipate including actual benchmarks in
23 the Investment Plan this cycle, but we will
24 likely include them in the 2018-2019 Investment
25 Plan after further discussion, and possibly a

1 workshop on the matter.

2 We've also added language excluding
3 landfill biogas projects from biofuel production
4 and supply funding. And I will discuss the
5 reasons behind this later in the presentation.

6 Finally, we've added a glossary to define
7 the more technical terms found in the report.

8 This slide shows the layout of the
9 Investment Plan, which is divided into chapters
10 based on the supply chain stage. The program
11 covers nearly the entire supply chain for
12 alternative fuels from production to distribution
13 infrastructure to vehicles. The remainder of
14 this presentation will follow this outline, as
15 well.

16 The first category in the Investment Plan
17 is biofuel production and supply. The graph on
18 this slide is useful to illustrate the progress
19 California has made in just four years which
20 shows the total volume of alternative fuel
21 reported under the Low Carbon Fuel Standard,
22 excluding gasoline and diesel. The total volume
23 has increased from nearly 1.6 billion gallons in
24 2011 to nearly 2 billion gallons in 2015, which
25 equates to a 25 percent increase. Biomethane,

1 biodiesel and renewable diesel have all seen
2 large increases in volume, on the order of tens
3 of millions of gallons or gallon equivalents.
4 And this is the kind of study progress that is
5 one of the goals for ARFVTP in this sector.

6 MR. BOESEL: Jacob, sorry. Is it
7 production and supply, or is it production in
8 California?

9 MR. ORENBERG: So, Jack, can we please
10 hold off on comments until after the
11 presentation? Thank you.

12 COMMITTEE MEMBER SCOTT: Okay. We'll
13 take questions after the presentation.

14 MR. BOESEL: I needed some clarifying.
15 Sorry.

16 MR. ORENBERG: But to address your
17 comment, I believe that's supply, so it includes
18 imports and domestic California production.

19 MR. KATO: That's John Boesel with
20 CALSTART.

21 COURT REPORTER: I'm sorry, John who?

22 MR. KATO: Boesel.

23 MR. ORENBERG: For the purposes of the
24 ARFVTP, biofuels are defined as non-petroleum
25 diesel and gasoline substitutes, as well as

1 biomethane. As in years past, this Investment
2 Plan Update leaves funds in this category open to
3 multiple fuel types and development stages,
4 including both pre-commercial and commercial-
5 scale projects. This category has two parallel
6 goals, one of which is to continue to drive
7 improvements and the cost effectiveness of the
8 projects. This ultimately will take the form of
9 low cost commercial-scale biofuel facilities.

10 The second goal is to encourage the use
11 of more advanced pathways and feedstocks for
12 biofuel production. Examples of such projects
13 might include pre-commercial renewable gasoline
14 production or projects that utilize woody biomass
15 as a feedstock. The program have a sizeable
16 allocation for biofuels because of their large
17 potential to reduce greenhouse gas emissions and
18 petroleum use, both in the present day and in the
19 future. For Fiscal Year 2017-2018, we are
20 proposing to maintain the biofuel production and
21 supply allocation at \$20 million.

22 Now as I previously mentioned, we're
23 proposing to exclude landfill biogas projects
24 from funding. And this is so the ARFVTP
25 maintains uniformity with other state goals. Two

1 pieces of legislation are particularly relevant
2 here, the first being Assembly Bill 341 of 2011
3 which set a goal to reduce, recycle or compost 75
4 percent of solid waste by 2020, and the second
5 being Senate Bill 1383 of 2016, which set goals
6 of reducing the statewide disposal of organic
7 waste by 50 by 2020 and 75 percent by 2025.

8 As a result of these laws, the state will
9 be diverting a substantial amount of organic
10 waste from landfill. And California will require
11 a new infrastructure to deal with this diverted
12 waste. One very beneficial use for the waste is
13 to serve as a feedstock for pre-landfill biofuel
14 production -- I'm sorry, biogas production
15 facilities.

16 Now also, as a side note, California has
17 had a regulation in effect since 2010 which
18 requires municipal solid waste landfills to use
19 landfill gas control systems. So the absence of
20 ARFVTP funding in this area should not result in
21 increased methane emissions from landfills.

22 Moving on, we have the ubiquitous monthly
23 sales chart for electric vehicles prepared by the
24 California Plug-In Electric Vehicle
25 Collaborative. This chart illustrates the

1 progress our state and our nation have made with
2 electric vehicle adoption. And as you can see in
3 December, we had quite a spike in sales,
4 exceeding the previous monthly sales record set
5 in August 2016 by almost 50 percent. Cumulative
6 California sales, shown with the green line, are
7 also steadily increasing and reached the 250,000
8 vehicle milestone in November.

9 We expect that continued statewide
10 investment in charging infrastructure will be
11 needed to keep pace with the increasing number of
12 EVs on the road, and also to meet the goals of
13 the ZEV Action Plan which seeks to have
14 sufficient infrastructure for 1.5 million zero-
15 emission vehicles by 2025.

16 In addition to the ARFVTP, several other
17 organizations will be providing significant
18 funding for EV charging infrastructure in the
19 coming year. Southern California Edison, San
20 Diego Gas and Electric and PG&E have all started
21 programs to install utility-owned charging
22 infrastructure within their respective service
23 territories and have been approved by the CPUC to
24 cumulatively spend nearly \$200 million on this.

25 In addition, as I previously mentioned,

1 Volkswagen has reached an agreement with ARB to
2 provide \$80 million a year for ten years to fund
3 zero-emission vehicle-related programs. Given
4 the scale and the scope of these other programs,
5 we are planning to make ARFVTP investments in
6 this area much more targeted and to focus on both
7 geographic areas and sectors that aren't covered
8 by these other programs.

9 Some examples of these investments
10 include projects that target smaller metropolitan
11 areas that lag behind early adopter communities
12 and charger deployment, or fund infrastructure
13 for new mobility services such as EV card and
14 ride-sharing projects.

15 For the coming fiscal year, we are
16 proposing a \$17 million allocation for the
17 electric charging infrastructure category.
18 Despite large investments from the utilities in
19 the Volkswagen settlement, we see a continued
20 need for funding, given the amount of
21 infrastructure required to meet the goals of the
22 ZEV action plan, and the need to support projects
23 not covered by large programs.

24 The graph on this slide, which was
25 prepared by ARB for their annual evaluation

1 report, provides context for a hydrogen refueling
2 station deployment efforts. In this graph the
3 green bar represents the station capacity of the
4 stations funded to date, measured in the number
5 of vehicles which can be supported. The dashed
6 red line represents the number of hydrogen fuel
7 cell vehicles projected to be on the road. And
8 the purple bar represents the projected station
9 capacity of stations funded by future
10 investments.

11 As you can see, the report is projecting
12 that the currently funded infrastructure will be
13 sufficient until about 2019. But even with the
14 projected infrastructure the state may experience
15 shortfalls in hydrogen refueling capacity as
16 early as 2021. For Fiscal Year 2017-2018, we're
17 proposing to continue with a \$20 million
18 allocation for hydrogen refueling infrastructure.
19 This is the maximum allowable under Assembly Bill
20 8 and is consistent with the recommendations in
21 the 2016 annual evaluation from ARB. Based on
22 past and projected station costs, this allocation
23 should be enough funding for eight or nine
24 stations, plus operations and maintenance
25 support.

1 We expect a continued need for O&M
2 funding to support the business case of station
3 developers since the deployment of hydrogen
4 vehicles is still in the early stages. This need
5 should dissipate as more hydrogen fuel cell
6 vehicles are on the road.

7 For natural gas fueling infrastructure,
8 private fleets are typically able to
9 independently finance their own natural gas
10 fueling stations. Given this, the ARFVTP natural
11 gas infrastructure funding will continue to be
12 prioritized for school districts and other
13 municipal public fleets which have restricted
14 access to capital. When provided to schools in
15 particular, this can have the added benefit of
16 reducing school children's exposure to toxic air
17 pollutants from older diesel buses. For the
18 coming fiscal year, Staff is providing a --
19 proposing a \$2.5 million allocation for this
20 category, which maintains the prior year's
21 funding levels.

22 Regarding natural gas fueling
23 infrastructure, though, there have been some
24 recent developments which may impact future
25 funding.

1 The first concern is GFO-16-602 which was
2 the most recent natural gas fuel and
3 infrastructure solicitation and had \$3.5 million
4 available for these projects. However, the
5 Energy Commission only received four proposals
6 totaling \$2 million, and only three of these
7 passed scoring, which left this solicitation
8 undersubscribed. Energy Commission staff are
9 investigating the reasons for this.

10 In addition, the Carl Moyer Program,
11 which has historically been limited to providing
12 funding for vehicles, is expected to begin
13 funding infrastructure, as well, and could make
14 this funding category somewhat redundant.

15 Since both of these developments bring
16 demand for this funding into question, we do want
17 to pose this question to our Advisory Committee
18 during the discussion: How should the ARFVTP
19 handle funding for a natural gas fueling
20 infrastructure in the future? For example, we'd
21 appreciate any input you may have as to the
22 continued need for funding in this category or
23 any suggestions you may have to make this
24 category more effective.

25 Moving on from infrastructure to natural

1 gas vehicles, we are seeing continued expressed
2 demand for incentive funding for a natural gas
3 vehicle incentive project. And the Energy
4 Commission recently added over \$11 million in
5 funding for additional incentives. However, the
6 economics of natural gas for transportation have
7 changed recently, primarily because of a
8 sustained drop in the price of diesel fuel. As a
9 result, the retail price of natural gas was
10 actually higher than diesel in 2016.

11 Fossil natural gas, however, still
12 provides a 15 percent reduction in carbon
13 intensity compared to diesel fuel, and biomethane
14 reduces carbon intensity by up to 50 to 125 below
15 that of diesel. Low-NOx natural-gas engines are
16 also now available, and these reduce nitrous
17 oxide emissions to 90 percent below that of an
18 equivalent diesel vehicle. Furthermore, when
19 biomethane fuel and low-NOx engines are combined
20 the lifecycle of vehicle emissions are near or
21 equal to those of an equivalent zero-emission
22 battery or fuel cell electric vehicle.

23 For these reasons, continued support for
24 natural gas vehicles is important in the coming
25 fiscal year. For Fiscal Year 2017-2018, we

1 propose maintaining the allocation for natural
2 gas vehicles at \$10 million. Going forward the
3 ARFVTP may consider limiting vehicle incentives
4 to low-NOx engines if an appropriate low-NOx
5 engine is available for the specific vehicle type
6 and weight class.

7 The chart on this slide illustrates the
8 amount of funding available for alternative fuel
9 medium- and heavy-duty vehicles from various
10 regional and state sources. The funding amounts
11 for this are for Fiscal Year 2016-2017 and have
12 already been approved, and don't cover the 2017-
13 2018 Investment Plan Update that we're discussing
14 today.

15 In the chart the Energy Commission's
16 funding is represented in blue. The Air Quality
17 Management District funding is represented in
18 green. And the ARB's funding is represented in
19 red. Substantial funding is available in this
20 sector, and ARB's portion is the biggest change
21 since in 2015-2016, they didn't receive any cap
22 and trade funding for these purposes. While most
23 of these sources of funding have at least some
24 similarity with each other, very few of them have
25 direct overlap.

1 For 2017-2018, we renamed and
2 reconfigured the former Medium- and Heavy-Duty
3 Vehicle Technology and Demonstration category.
4 This was done to better fit the needs and
5 opportunities in this sector, given the
6 substantial funding now available from ARB. The
7 category called Advanced Freight and Fleet
8 Technologies still focuses on on-road medium- and
9 heavy-duty vehicles which we define as Class 3
10 through 8 vehicles with a gross vehicle weight of
11 over 10,000 pounds.

12 In addition, this category also focuses
13 on non-road freight vehicles, for example, cargo
14 handlers, forklifts and drayage trucks which
15 aren't registered for road use but serve similar
16 purposes or support the medium- and heavy-duty
17 vehicles.

18 Also, we expect to continue with non-
19 propulsion projects, such as autonomous vehicles
20 and intelligent transportation systems for the
21 vehicle types I just mentioned.

22 Finally, fueling infrastructure projects
23 are expected to take a major role in this
24 category during the coming fiscal year. These
25 fueling projects will exclusively support the

1 types of freight and fleet vehicles funded under
2 this category. And similar to last year,
3 implementing the California Sustainable Freight
4 Action Plan and working with the California Ports
5 Collaborative is expected to be a primary focus
6 of this category.

7 Despite the large amounts of funding
8 available from other sources, we do expect to
9 continue to fund advanced technology freight and
10 fleet vehicle demonstrations, largely because the
11 ARFVTP has been a stable source of funding for
12 these types of projects since the inception of
13 the program.

14 For the coming fiscal year, we're
15 proposing an \$18 million allocation for the
16 Advanced Freight and Fleet Technologies category,
17 which is \$5 million less than last year's medium-
18 and heavy-duty category. This reduced funding
19 level will provide support to this sector and
20 assist in the implementation of the Sustainable
21 Freight Action Plan while taking into account the
22 substantial funding available from other sources.

23 For Fiscal Year 2017-2018, we're also
24 proposing to introduce the manufacturing
25 allocation. We haven't provided funding for a

1 dedicated manufacturing allocation since the
2 category was merged into the medium- and heavy-
3 duty scale of category in Fiscal Year 2015-2016.
4 The absence of a dedicated manufacturing
5 category, however, excluded projects for our
6 target of renewable light-duty vehicles, vehicle
7 components, supporting infrastructure and
8 standalone manufacturing projects. During last
9 year's Investment Plan development process,
10 several stakeholders and manufacturers requested
11 that we reintroduce funding to this category.

12 We found that there aren't any sources of
13 incentive funding for manufacturing in California
14 like this, so for the coming fiscal year we are
15 proposing a \$5 million allocation for this
16 category, which we expect we'll be able to fund
17 one or two projects. These projects will
18 indirectly support the other ARFVTP categories,
19 as well as the general goals of the program, and
20 are expected to create jobs and economic benefits
21 in the state.

22 Finally, I'm going to provide a summary
23 of the related needs and opportunities
24 categories. These allocations are meant to
25 support alternative fuels and advanced technology

1 vehicles beyond what is proposed in the previous
2 categories. The emerging opportunities
3 allocation is largely set aside for project types
4 that weren't anticipated during the Investment
5 Plan development process.

6 In the past, this category has also
7 targeted federal cost-sharing projects to bring
8 federal grant money to California. We're
9 proposing an allocation of \$4 million for this
10 category, and this is based on some anticipated
11 federal cost-share opportunities in the coming
12 fiscal year, as well as a possible renewable
13 hydrogen production demonstration project which
14 may be funded from this category.

15 Our workforce training and development
16 activities are continuing with interagency
17 agreements, which also support the California
18 Community College system. ARFVTP efforts in this
19 area may also expand to address career paths of
20 high school students and young adults. For
21 Fiscal Year 2017-2018, we're proposing a \$3.5
22 million allocation, based on the anticipated
23 needs of these agreements and activities.

24 Finally, we have a regional readiness
25 category which helps local agencies prepare for

1 and expedite the deployment of deployment of
2 alternative fuel vehicles. This category had
3 about \$4 million in reserve at the start of the
4 fiscal year, which should be sufficient to cover
5 demand for the current and upcoming fiscal years.
6 Because of this, we're not proposing funding for
7 this category in 2017-2018, but we will
8 reconsider in 2018-2019.

9 That's it for our funding allocations.
10 And this is a good opportunity to transition to
11 an overarching question that we would like to
12 address, also, during the discussion, which is:
13 How can the Energy Commission better ensure the
14 equitable distribution of environmental and
15 economic benefits from ARFVTP projects?

16 Currently, the primary way the program
17 ensure this is by providing scoring preference to
18 projects which are located in or provide benefits
19 to communities which are disproportionately
20 affected by pollution. And this is determined by
21 the CalEnviroScreen tool. So during the
22 discussion, we invite any suggestions for how we
23 can improve our environmental equity efforts
24 beyond what we already do.

25 We're still seeking feedback on these

1 allocations, the Investment Plan and the program
2 in general from all stakeholders. In order to
3 incorporate any comments into the Lead
4 Commissioner Report, we're asking to receive them
5 no later than this coming Monday, February 20th.
6 We prefer to receive the comments through the
7 Energy Commission's e-commenting system, and
8 there's a link to that on this slide and in the
9 workshop notice. We also accept comments via
10 email and regular mail, and instructions for
11 where to send these are also in the workshop
12 notice.

13 We expect to release the Lead
14 Commissioner Report of the Investment Plan in
15 March, and will likely be seeking approval for
16 the final Commission Report at the April business
17 meeting.

18 This slide shows a summary of all the
19 funding allocations we are proposing in the
20 revised Staff Report of the Investment Plan. The
21 Advisory Committee discussion will begin
22 momentarily, during which we hope to have an open
23 and frank discussion about these proposed funding
24 allocations and categories.

25 I can also answer any clarifying

1 questions about this presentation now. However,
2 we do ask that you hold off on any questions or
3 comments about specific fuel types, technologies
4 or allocations until the discussion or the public
5 comment period.

6 Thank you.

7 COMMITTEE MEMBER SCOTT: Thank you,
8 Jacob.

9 I just want to take a minute to run
10 through -- this is Commissioner Scott. We should
11 introduce ourselves so the folks on the WebEx
12 will know who's speaking. This is Commissioner
13 Scott.

14 In addition to Shannon, Peter and Brian,
15 we have now been joined by Tyson Eckerle from
16 GoBiz, by Sekita Grant from the Greenlining
17 Institute, by Claire Jahns from California
18 Natural Resources Agency, by Jack Michael from
19 the Recreational Boaters of California, and by
20 John Shears from the Center for Energy Efficiency
21 and Renewable Technologies, so welcome Advisory
22 Committee Members. We're glad to have you on our
23 WebEx.

24 Are there any other Advisory Committee
25 Members who have joined since Jacob started his

1 presentation?

2 COMMITTEE MEMBER KAFFKA: Hello, this is
3 Steve Kaffka.

4 MR. REGNIER: Everybody's un-muted.

5 COMMITTEE MEMBER SCOTT: Everyone is un-
6 muted. I heard two folks talking over one
7 another. Try again. I didn't catch either
8 voice.

9 MR. KATO: I didn't either.

10 COMMITTEE MEMBER KNIGHT: This is Ralph
11 Knight.

12 COMMITTEE MEMBER SCOTT: Oh, hello,
13 Ralph.

14 COMMITTEE MEMBER KNIGHT: And I was
15 finally was able to get through. Hi there. How
16 are you?

17 COMMITTEE MEMBER SCOTT: Good morning.
18 I'm doing great. Thank you for joining us.
19 Sorry you had trouble getting on there. We had a
20 little issue, but I'm glad you're there.

21 COMMITTEE MEMBER KNIGHT: Gotcha. We
22 finally made it.

23 COMMITTEE MEMBER SCOTT: Excellent.

24 Any other Advisory Committee Members?

25 COMMITTEE MEMBER KAFFKA: This is Steve

1 Kaffka. I don't know if you can hear me.

2 COMMITTEE MEMBER SCOTT: Hello, Steve.

3 Yes, I can hear you, too. Good morning.

4 COMMITTEE MEMBER KAFFKA: Okay. I had
5 the same kind of difficulty but figured it out.

6 COMMITTEE MEMBER SCOTT: We're sorry
7 about that. Thank you for persevering.

8 COMMITTEE MEMBER WARD: Okay. This is
9 Justin Ward.

10 COMMITTEE MEMBER SCOTT: Hi, Justin.
11 Good morning.

12 COMMITTEE MEMBER WARD: Good morning.

13 COMMITTEE MEMBER SCOTT: Thank you, also,
14 for persevering.

15 Any others? Okay. Terrific.

16 So if there are clarifying questions from
17 the Advisory Committee Members, why don't we
18 start in the room here. Please feel free to ask
19 Jacob. Okay.

20 Any clarifying questions on the
21 presentation for Jacob from Advisory Committee
22 Members on the WebEx?

23 COMMITTEE MEMBER KAFFKA: This is --

24 COMMITTEE MEMBER SCOTT: Oh.

25 COMMITTEE MEMBER KAFFKA: This is Steve

1 Kaffka.

2 COMMITTEE MEMBER SCOTT: Yes.

3 COMMITTEE MEMBER KAFFKA: To what degree
4 does the Hydrogen Infrastructure Program also
5 support the development of hydrogen fuels? I
6 guess I should know, but I would like some
7 clarification on that.

8 MR. ORENBERG: So our current allocation
9 of \$20 million is dedicated exclusively to
10 hydrogen refueling infrastructure. Now some of
11 those stations do, I believe, integrate onsite
12 production of renewable hydrogen. However, we
13 are planning or thinking about going forward with
14 another solicitation from our emerging
15 opportunities category which would fund a
16 standalone renewable hydrogen production plant.

17 COMMITTEE MEMBER KAFFKA: So when you say
18 renewable hydrogen, do you mean from sources
19 other than natural gas?

20 MR. ORENBERG: Yes. So some of the
21 sources -- some of the methods you can use to
22 develop -- produce renewable hydrogen include
23 electrolysis, and can also be reformed from
24 biogas.

25 COMMITTEE MEMBER KAFFKA: I understand

1 that. So are there actual stations in California
2 that do that?

3 MR. ORENBERG: I don't know if any of --
4 I believe some of our stations do incorporate
5 onsite electrolysis to produce renewable
6 hydrogen. I don't know if any of those are open
7 yet.

8 COMMITTEE MEMBER KAFFKA: Thank you.

9 COMMITTEE MEMBER SCOTT: This is
10 Commissioner Scott.

11 Any other questions from Advisory
12 Committee Members on the WebEx for Jacob? Okay.

13 I'm turning it back over to you.

14 MR. ORENBERG: Great. Thank you,
15 Commissioner Scott.

16 So unless there are any other issues to
17 discuss, we'll now begin with the Advisory
18 Committee --

19 Hello?

20 COMMITTEE MEMBER SCOTT: Oh, I'm sorry.
21 Go ahead.

22 COMMITTEE MEMBER GOLDSTEIN: Hi. This
23 is -- sorry. This is Brian Goldstein. Can you
24 hear me now?

25 COMMITTEE MEMBER SCOTT: Yes, we can.

1 Good morning, Brian.

2 COMMITTEE MEMBER GOLDSTEIN: Okay.

3 Great. Good morning. Good morning.

4 Hey, I just wanted to continue that same
5 line of questioning on the hydrogen stations, and
6 the renewable hydrogen specifically. I just
7 wanted to ask, the slide that you guys brought up
8 about biofuel production and supply that are now
9 being excluded from funding, would that also
10 include the use of landfill biogas to produce
11 hydrogen, or is that just for the end use of the
12 landfill gas going to CNG vehicles?

13 MR. ORENBERG: I don't -- so I believe
14 that would be determined at the solicitation
15 level. I don't believe any refunding from
16 biofuel production supply has been made available
17 for renewable hydrogen production yet.

18 COMMITTEE MEMBER GOLDSTEIN: Okay.

19 Thanks.

20 COMMITTEE MEMBER KAFFKA: This is Steve
21 Kaffka again. You know, I had trouble joining,
22 so I may have missed the slide the previous
23 questioner was referring to. Could you put that
24 up please?

25 MR. ORENBERG: Sure, Steve. Give me a

1 second please.

2 MR. KATO: Yeah. This is John Kato. I
3 want to just add, when it comes to landfills, we
4 are working closely with CalRecycle. So kind of
5 our policy direction and what we would consider,
6 we would always definitely take heed and consult
7 with CalRecycle so our policies are in line of
8 what California is going towards.

9 MR. ORENBERG: So, Steve, I believe this
10 was the slide that was referenced.

11 COMMITTEE MEMBER KAFFKA: Did I hear
12 correctly that you're not going to be funding any
13 of these kinds of projects or that the \$20
14 million would include them?

15 MR. ORENBERG: So this specific category,
16 Biofuel Production and Supply, this category for
17 2017-2018 will not be funding renewable hydrogen
18 production facilities.

19 COMMITTEE MEMBER KAFFKA: Okay.

20 MR. ORENBERG: However, we are
21 considering going forward with a demonstration-
22 scale renewable hydrogen production facility
23 funded from a different category, which is our
24 Emerging Opportunities category.

25 COMMITTEE MEMBER KAFFKA: Okay. I mean,

1 but there are still groups that can solicit for
2 support to develop supplies based on these types
3 of pathways, though; is that correct? So in
4 other words, the \$20 million allocation is more
5 or less consistent with the way it has been in
6 the past?

7 MR. ORENBERG: Steve, I'm not sure I
8 understand the question.

9 COMMITTEE MEMBER SCOTT: I think he's
10 asking about --

11 COMMITTEE MEMBER KAFFKA: Well, I was
12 confused by the previous question or answer. So
13 this is still a robust category for in-state
14 project development based on diverse feedstocks
15 that will produce liquid transportation fuels,
16 biomass; is that correct?

17 COMMITTEE MEMBER GOLDSTEIN: So just to
18 clarify, this is Brian Goldstein, I was talking
19 about -- I think it would probably be the next
20 slide with the sub-texting "Landfill biogas
21 projects now excluded from funding." There you
22 go.

23 COMMITTEE MEMBER KAFFKA: Oh, okay.

24 COMMITTEE MEMBER GOLDSTEIN: It was the
25 last one.

1 COMMITTEE MEMBER KAFFKA: Thank you. I
2 see.

3 COMMITTEE MEMBER GOLDSTEIN: That's the
4 one. Sorry guys.

5 COMMITTEE MEMBER KAFFKA: Okay. Sorry.

6 MR. ORENBERG: So that only relates to
7 landfill biogas. We are still -- biogas
8 production projects are still eligible under the
9 Biofuel Production and Supply category, but they
10 would have to utilize an anaerobic digestion
11 technology or some other technology, besides
12 landfill.

13 COMMITTEE MEMBER KAFFKA: Can you explain
14 why you've decided to exclude this particular
15 source? Is it because you think it's going to
16 develop on its own anyway?

17 MR. ORENBERG: Landfill biogas?

18 COMMITTEE MEMBER KAFFKA: Yeah.

19 MR. ORENBERG: So this is to bring our
20 program in consistency with other state goals,
21 and specifically the two laws which you can see
22 on the screen right now, AB 341 and AB 1383.
23 They will result in a significant diversion of
24 organic waste from landfills. That organic
25 waste, you could say, is the feedstock for

1 landfill biogas. The decomposition of that
2 organic waste results in the methane production,
3 which is then harvested from landfill biogas
4 projects.

5 So to maintain consistency of these goals
6 to divert organic waste from landfills, and also
7 to, so to speak, free up funding for non-landfill
8 biofuel projects, we are going to -- we're
9 planning to exclude landfill biogas from funding.

10 MR. KATO: And this is John.

11 COMMITTEE MEMBER KAFFKA: Okay. I get
12 it.

13 MR. KATO: Yeah. And this I John Kato.

14 Just to add to what Jacob said, this is
15 really -- I'm not saying there's not an
16 opportunity for landfills, but this is more in
17 line with the strategies that CalRecycle and us
18 have kind of discussed where CalRecycle have a
19 strategy in place for landfills. And with the,
20 again, the regulations with diversion, we want to
21 make sure we get ahead of the game and find
22 solutions for the, what we call emerging
23 opportunity for that.

24 COMMITTEE MEMBER KAFFKA: This is Steve
25 Kaffka again. I get that and I think this is a

1 reasonable way to think about it.

2 COMMITTEE MEMBER SCOTT: This is
3 Commissioner Scott.

4 Any other questions on the presentation
5 from our Advisory Committee Members?

6 COMMITTEE MEMBER SHEARS: Yeah. John
7 Shears with CEERT.

8 So just to clarify, so there's a
9 carryover for regional readiness, did I hear
10 correctly, of \$2.4 million?

11 MR. ORENBERG: So this is Jacob. I don't
12 know the exact carryover. At the beginning of
13 Fiscal Year 2017-2018, we had \$4 million in the
14 fund. I believe that we now have \$2 million
15 left, which should be sufficient for Fiscal Year
16 2017-2018.

17 COMMITTEE MEMBER SHEARS: Okay. Yeah. I
18 just wanted to clarify on that.

19 And then in terms of helping out, in
20 terms of the data strategy to use these programs
21 for economic development opportunity and capacity
22 building at the -- with disadvantaged and low-
23 income communities, I've already begun
24 discussions with current staff and, actually, as
25 part of their workgroups for low-carbon

1 transportation funding, (indiscernible) funding,
2 you know, it's been discussed in some of those
3 workgroups. I'm about to embark on discussions
4 around some ideas that we might what to work on,
5 together with, you know, Peter, our colleague,
6 fellow Advisory Committee Member Peter Cooper and
7 the agencies on ways to help get some of these
8 funds more down to the grass-roots levels.

9 So it's something, I think, that might
10 recommend a public workshop at some point, but
11 it's too extensive and expansive. We'd take a
12 good chunk of the rest of today's Committee time
13 to discuss it. So just to let you know that I am
14 embarking on discussions around that and will
15 follow up with Energy Commission stuff and other
16 stakeholders.

17 COMMITTEE MEMBER SCOTT: Thank you.

18 This is Commissioner Scott again.

19 Please feel free to just speak up.

20 Otherwise, we'll take the long pause of silence
21 to think that no one else has -- no one else on
22 the Advisory Committee has clarifying questions
23 for Jacob. If you do, please go ahead and ask.

24 COMMITTEE MEMBER SHEARS: Well, this is
25 John Shears again.

1 COMMITTEE MEMBER SCOTT: Uh-huh.

2 COMMITTEE MEMBER SHEARS: And basically,
3 I just want to, you know, thank the staff and the
4 Commissioners for all of their hard work, and
5 basically just cut and paste my comments from our
6 last Advisory Committee meeting in terms of any
7 advice I would like to give in terms of how we
8 all and how the Energy Commission staff should be
9 thinking about managing these funds going
10 forward, especially on the zero-emission vehicle
11 front and supporting infrastructure.

12 COMMITTEE MEMBER SCOTT: Great. Okay.

13 I will turn back to Jacob to start our
14 discussion the -- this is Commissioner Scott and
15 I will turn back to Jacob to start our discussion
16 with Advisory Committee Members on each of the
17 categories.

18 MR. ORENBERG: Great. Thank you.

19 So we will now begin the Advisory
20 Committee discussion on biofuels, after which we
21 will have a public comment period specifically to
22 discuss biofuel. If you would like to provide
23 public comment, we do ask that you fill out a
24 blue card and provide it to either Justin, who's
25 sitting here in the front, or Alana in the back.

1 And if you're participating via WebEx and
2 would like to comment, we do ask that you use the
3 raised hand feature. Justin will then make note
4 of your name and pass it on to Commissioner
5 Scott. And when we have an opportunity, we will
6 call your name and you can provide comment.

7 We do ask that all public comments are
8 kept to three minutes or less to ensure that we
9 can address all of the allocations, and that all
10 stakeholders have an opportunity to share.

11 Thank you.

12 So now I guess we'll just -- if there are
13 any Advisory Committee Members in the room?

14 COMMITTEE MEMBER SCOTT: Yes. And we are
15 starting with the biofuel; correct? Okay.

16 So this is Commissioner Scott.

17 On the biofuel area, we'll start with
18 members in the room with Joe Gershen.

19 COMMITTEE MEMBER GERSHEN: Hi. Joe
20 Gershen with CBA.

21 Like John, I want to thank you guys for
22 all the hard work. Obviously, you've been
23 spending tons of time on this and it's much
24 appreciated.

25 Also, like John, no big surprises with me

1 and my comments, similar to the last time. But
2 just to review, in chapter two, tables two and
3 three, given roughly 9-and-a-half percent of
4 program funding went to alternative diesel
5 projects, including renewable diesel and
6 biodiesel, we note that that alternative diesel
7 category has provided about 40 percent of all the
8 greenhouse gas reductions in the Low Carbon Fuel
9 Standard Program. So we think that these
10 benefits alone make a very strong case to
11 increase funding level for this category,
12 especially because the alternative diesel fuels
13 and other biofuels are expected to continue to
14 provide an overwhelming majority of the LCFS
15 benefits for years to come.

16 Also in chapter two, we're still kind of
17 asking why there's no funding from that
18 Volkswagen settlement for the biofuel sector. We
19 know that it is what it is, but just for the
20 record, we'd like to understand why.

21 We also expressed that funding for
22 storage and blending infrastructure for biodiesel
23 specifically has been missing from the Investment
24 Plan for several years. There's roughly 75 bulk
25 fuel terminals and racks in California, but fewer

1 than 25 percent of them are capable of blending
2 biodiesel today.

3 And then with respect to a comment in
4 chapter 3 on page 40 about the production
5 incentives, you know, CBA wants to point out that
6 in addition to significant economic development
7 benefits to be gained by new production capacity
8 made possible by an in-state production
9 incentive, this incentive is needed because
10 imported biodiesel and other biofuels from places
11 like Singapore, China, Korea, South America and
12 India actually undermines California in-state
13 production.

14 California biodiesel is more costly than
15 imported biodiesel because biodiesel produced
16 outside of California enjoys lower costs for
17 labor, energy, materials and regulatory
18 compliance, and also typically receives tax
19 and/or other incentives. Additionally, foreign
20 alternative diesel fuel producers are further
21 incentivized to send their product to California
22 where they enjoy RFS RINs -- RIN credits and LCFS
23 credits, as well as U.S. federal tax credits for
24 alternative diesel fuel blending.

25 In-state production incentives would

1 simply level the playing field and is supported
2 in the state legislature by increasing ARFVTP
3 funding for biofuels to more fairly reflect their
4 commensurate contribution to actual greenhouse
5 gas reductions. As evidenced in roughly 85 or 90
6 percent of all the LCFS credits generated thus
7 far, there would be enough resources to
8 adequately fund a state biofuels incentive. This
9 is especially true if it's combined with funding
10 from the California Air Resources Board for this
11 purpose.

12 And once again, we just want to point
13 out, with respect to the benefits section, the
14 Benefits and Evaluation section, I want to
15 continue to point out that expected benefits
16 should not be mistaken for actual benefits.

17 So that's it. Again, thanks so much for
18 all the work. Appreciate it.

19 COMMITTEE MEMBER KAFFKA: This is Steve
20 Kaffka. I'd like to add to Joe's comments.

21 COMMITTEE MEMBER SCOTT: Uh-huh.

22 COMMITTEE MEMBER KAFFKA: The Low Carbon
23 Fuel Standard and the Energy Commission's
24 programs are very important, not only statewide
25 but nationally and internationally, for helping

1 to create markets and projects that produce
2 innovative low-carbon fuels.

3 But Joe's point, I think, is a sound one
4 in that fuels that are generated from waste
5 resources in Asia and then shipped to California
6 at a high price, while it's valuable that they're
7 available to us, and a large number of the Low
8 Carbon Fuel Standard credits are coming from such
9 sources, there's no reason why those fuels aren't
10 also equally or more valuable in the locations
11 where they're produced. And the high price that
12 causes them to come to California is an economic
13 burden, certainly to people with lower incomes.

14 And so in-state production would be a
15 great boom, I think, both for the state's
16 economy, and also particularly for those
17 locations where production takes place in
18 biorefineries, with respect to local job
19 creation. That's perhaps the best way to transfer
20 benefits to people in rural areas, many of whom
21 are disadvantaged populations, from this program.

22 And then so I think it's important for
23 the state to kind of grapple with this. It's
24 nice that we get credits from importing waste
25 materials from abroad. But at the same time, to

1 the degree that we can be self-sufficient, or at
2 least increase our efficiency here, that would be
3 beneficial. And let me give you an example.

4 I think it's -- one of the things that I
5 work on is the idea of trying to use nonbearing
6 orchards, nut trees, fruit trees, whatsoever, as
7 places for double cropping oil seeds that might
8 be used for feedstocks or biodiesel. That would
9 enhance the productivity of the state's
10 agricultural and provide a number of, in my view,
11 agroecological benefits. But the price of those
12 oil seeds needs to be sufficient to make it
13 feasible for producers to do that.

14 And so those kinds of incentives might
15 bring about a number of secondary benefits to
16 rural communities, as well as the agricultural
17 industry as a whole, if they were available.

18 That's all.

19 COMMITTEE MEMBER SCOTT: Okay. Other
20 thoughts from Advisory Committee Members?

21 Joe, I had a follow-up question for you
22 in response to the expected benefits are not
23 actual benefits, which we do recognize. And
24 maybe it's as simple as writing a sentence to
25 that effect in the chapter. But if you had other

1 suggestions for how to kind of make that
2 differentiation, we'd more than welcome them.

3 COMMITTEE MEMBER GERSHEN: Okay.

4 COMMITTEE MEMBER SCOTT: Let me double
5 check. I think Thomas Lawson is trying to dial
6 in.

7 Thomas, if you are on the phone -- or the
8 WebEx, please speak up? Okay. We'll circle back
9 in just a minute.

10 Do we have any other comments from
11 Advisory Committee Members on the biofuels
12 allocation?

13 COMMITTEE MEMBER ROBERTSON: This is Bill
14 Robertson with the California Air Resources
15 Board.

16 We support this allocation. In our '16-
17 17 funding plan we had \$40 million for similar
18 sorts of efforts in developing in-state biofuels
19 that we didn't end up getting an allocation from
20 the legislature to support. But going into this
21 next funding plan, we're hoping to also support
22 some of these kinds of issues with projects from
23 our side, as well. So it's good to see similar
24 efforts at the CEC.

25 Thank you.

1 COMMITTEE MEMBER SCOTT: Anyone else on
2 biofuels? All right.

3 Let us -- let's turn to the public for
4 public comment on this. I see that John's ready.

5 Can you come close to the -- they have to
6 hear us through the speaker phone. So if you
7 come close to Joe, that would be perfect.

8 COURT REPORTER: If you want to pull up a
9 chair, you can do that.

10 COMMITTEE MEMBER SCOTT: Yeah, that's
11 true, too.

12 (Colloquy)

13 MR. BOESEL: John Boesel with CALSTART.

14 Commissioner Scott and Advisory Committee
15 Members, thank you very much for this opportunity
16 to share our views.

17 I want to commend, also, the staff on
18 very good work and the presentation of the plan.

19 I do think that the continued investment
20 in in-state biofuel production is very important.
21 I would maybe give some serious weighting perhaps
22 in the plan to the development of renewable
23 natural gas in particular. We have the passage
24 of SB 1383. We've got five pilot projects that
25 we need to execute and, as a state, to get them

1 off the ground.

2 I think there a huge opportunity right
3 here in the San Joaquin Valley to help the
4 dairies. They've got a big problem on their hands
5 there. And per SB 1383, they're going to be
6 coming under a lot of pressure to reduce their
7 greenhouse gas emissions. So I really think
8 there is a chance in the next two years to take
9 some targeted resources.

10 And we would be very interested in
11 working with the Energy Commission to help get
12 RNG production going into transportation. There
13 are some existing plants where dairies are
14 producing electricity. But even though that's a
15 nice source of energy for the electricity, they
16 are ultimately running a generator and they're
17 creating additional NOx. And, you know, less
18 than 75 feet away from us the San Joaquin Valley
19 Air Pollution Control District is having its
20 board meeting, and they're dealing with the very
21 issue of NOx. And they're under extreme pressure
22 to try to come up with a new plan to submit to
23 the EPA in August to come into attainment, to
24 really dramatically reduce NOx and PM 2.5.

25 So I think there's just a huge

1 opportunity there. I'll have some additional
2 comments on the natural gas infrastructure and
3 how that relates to that in that section later
4 on.

5 And I would just say, and maybe this is
6 an opportunity, to invitation to Steve Kaffka and
7 others, but right now, in the Air District's
8 board meeting, they're dealing -- I think the
9 agenda issue right now is ag burning and what are
10 the alternatives to all the biomass that's
11 generated here? And they're concerned right now.
12 They have the, you know, requirement to reduce or
13 eliminate ag burning, but they have this
14 increasing amount of biomass.

15 So I view that as an opportunity. And I
16 know Steve has done a lot of research on that.
17 But that's not necessarily dairy related but it's
18 additional biomass. So it's an opportunity.
19 It's a problem and an opportunity.

20 Thank you.

21 COMMITTEE MEMBER SCOTT: Thank you.

22 We just have about five people in the
23 room. So I'm just going to ask, if you have
24 something to say, please come on up. And Jacob
25 is going to set up the podium with the mike there

1 for you. And just feel free to come on up, and
2 then we'll go to the folks on the WebEx.

3 COMMITTEE MEMBER KAFFKA: Janea, this is
4 Steve Kaffka. Can I make a comment?

5 COMMITTEE MEMBER SCOTT: Yes, of course.
6 Please go ahead.

7 COMMITTEE MEMBER KAFFKA: Sorry to
8 interrupt the procession, but last week I had a
9 meeting in San Diego on woody biomass that became
10 evident that Southern California, at least, there
11 could be massive tree mortality from invasive
12 insect beetles that are likely to kill many of
13 the regions urban shade trees, as well as
14 horticultural crops. It's possible that that
15 same insect will invade the Central Valley. Now
16 perhaps it will not be Armageddon the way people
17 describe. But, in fact, the amount of woody
18 biomass without a home (phonetic), at least in
19 the Southern California region, it's increasing,
20 and it's likely to increase substantially.

21 So to the degree that those kinds of
22 materials could be converted to natural gas-type
23 fuels through biomass gasification and
24 methanation, or to other kinds of transportation
25 fuels, physhotropes (phonetic), diesel, or some

1 other materials, I think the fact is that the
2 woody biomass issue is a significant one that the
3 staff at the Energy Commission should consider in
4 thinking about projects. I'm not even mentioning
5 the tree mortality problem in the Sierra from
6 native pine beetle mortality. So it's a big
7 issue, and I want to support what John said.

8 COMMITTEE MEMBER SCOTT: Thank you.

9 We have one more member of the public in
10 the room, it looks like. Please go ahead.

11 MS. TURNER: Hi. My name is Brenda
12 Turner. I'm with Project Clean Air, as well as
13 the San Joaquin Valley Clean Cities Coalition.
14 We work very closely with --

15 COMMITTEE MEMBER SCOTT: Can they hear
16 her?

17 MS. TURNER: -- CALSTART on their --

18 COMMITTEE MEMBER SCOTT: Hold on just one
19 second.

20 MS. TURNER: Sure.

21 COMMITTEE MEMBER SCOTT: I think we need
22 to put the --

23 MS. TURNER: Mike?

24 COMMITTEE MEMBER SCOTT: -- phone mike
25 closer to you.

1 MR. REGNIER: Yeah. If you can speak --

2 COURT REPORTER: Actually, if we pulled
3 the podium a little closer this way --

4 MR. REGNIER: If we could pull the
5 podium, yeah, why don't we do that?

6 COURT REPORTER: -- because otherwise we
7 might lose that.

8 MR. REGNIER: That way we get the best of
9 both worlds.

10 COMMITTEE MEMBER SCOTT: Or we can just
11 put a chair next to that mike.

12 MS. TURNER: I think a chair is good
13 enough.

14 COMMITTEE MEMBER SCOTT: Yeah. Why don't
15 just put a chair right next to that?

16 MR. REGNIER: Certainly. We can do that.

17 COMMITTEE MEMBER SCOTT: And that way --

18 MR. REGNIER: We have confusion and
19 helpers. Fantastic. Fantastic.

20 MS. TURNER: All right. I'll restate all
21 that.

22 COMMITTEE MEMBER SCOTT: Yes. Please do.
23 Sorry to interrupt you.

24 MS. TURNER: I'm Brenda Turner with
25 Project Clean Air and the San Joaquin Valley

1 Clean Cities Coalition. We have worked closely
2 with CALSTART with the Clean Transportation
3 Center.

4 COMMITTEE MEMBER SCOTT: Uh-huh.

5 MS. TURNER: I was at the World Ag Expo
6 yesterday and had the opportunity to meet with
7 the head of business development for ampCNG, A-M-
8 P-C-N-G --

9 COMMITTEE MEMBER SCOTT: Uh-huh.

10 MS. TURNER: -- is how it's spelled.
11 They have a very interesting project with Fair
12 Oaks Farm in Indiana. You might have seen Fair
13 Oaks -- or Fair Life Milk at the stores. It's
14 sold even here locally. But they use anaerobic
15 digester to take the methane to convert it into
16 renewable CNG. They are interested in expanding
17 to California, would like to work with one or
18 more dairies. And I think they have a great
19 example of a very successful project that they've
20 done there in Indiana that could be replicated
21 here.

22 And Southern California Gas is working
23 with dairies. So I think that's a really great
24 place to put the funds. We would be very
25 supportive and be willing to do whatever to work

1 to get something done here in the valley.

2 COMMITTEE MEMBER SCOTT: Great. Thank
3 you.

4 I'm not seeing any of the other people in
5 the room approach the podium.

6 So I will turn to see whether we have
7 hand raisers on the WebEx to comment on the
8 Biofuel Production and Supply category?

9 MR. REGNIER: Yeah. We do have Mark
10 Roest. And I'll go ahead and un-mute him now.

11 COMMITTEE MEMBER SCOTT: Okay. Mark, did
12 you hear that you've just been un-muted? Please
13 go ahead with your comment, Mark Roest.

14 MR. ROEST: Thank you very much. This is
15 Mark Roest. And I have comments in both what was
16 just being discussed, well, both things that were
17 just being discussed.

18 First of all, I have a friend who works
19 with two brothers, professors at a university in
20 Utah that might be in Provo or another place that
21 I mentioned on the chat. But they had an
22 extremely advanced system for -- I mean, it was
23 20,000 gallons capacity, and 12 cylinders which
24 could be clustered. And they got -- they
25 blocked -- they didn't have sulfur issues. They

1 didn't have gravel issues, they solved all that,
2 and it was fully implemented.

3 And when I was looking at -- I was at a
4 startup that was looking at doing biodigesting.
5 We didn't have the funding to help them, and so
6 we didn't get anywhere with it. But they have
7 probably the best, by far, biodigester on the
8 planet. And I was looking at costs, you know, at
9 cost effectiveness in my analysis. Now, on a
10 later date, labs built in Berkeley, built a
11 (indiscernible) refinery on a pallet which can be
12 taken into the woods to process on site.

13 (Indiscernible) besides what the caller
14 before me just mentioned, there's also the
15 fact -- there's over, I think it was either 52
16 million or 152 million trees or 80 million trees
17 that are either dead or dying in forests in
18 California because of the bark beetle and/or pine
19 beetle. And also because they're competing
20 with -- for water in the drought, because 100
21 years of fire suppression allowed mass overgrowth
22 of trees, and some trees are close together.

23 The Indians, the indigenous peoples
24 managed California wildlife. There's a book
25 called Tending the Wild by Anderson, Native

1 American Knowledge and the Management of
2 California's Natural Resources. So they
3 maintained open park-type forest systems by
4 periodic burning in the winter when it wouldn't
5 get out of control. And so therefore, they didn't
6 have major fires, you had controlled fires. But
7 the fire still dumps everything in the
8 atmosphere. So if we use the electrolysis on a
9 pallet refinery system, and they also have a
10 container-sized version of it where you can take
11 it into the forest.

12 So and Indian tribe in Montana had done a
13 study of taking forest out to a processor
14 outside, and the truck costs of taking the trees
15 out there drove the project -- you know, made it
16 uneconomic. But if you bring the pallets, you
17 bring these refineries into the forest to process
18 onsite with planned thinning, selective thinning,
19 and have that be done by people trained in both
20 the traditional management and practices of the
21 tribe that used to occupy the given ecoregion and
22 the modern ecosystem management processes,
23 they're going to wind up with this system. I've
24 explored this at some length and have contacted
25 people who would -- and tribes, who would be

1 interested in pursuing it if funding were to be
2 made available.

3 And this can be used, not only for
4 the biofuels, but also can be used as feedstocks.
5 Because when we push fossil fuel production off
6 the map, that's also a source of most of the
7 chemical feedstock. Though now, in these trees,
8 we're looking at vast amounts of available
9 feedstocks for getting things made. And if we're
10 shifting to a sustainable economy, we will make
11 what we need and make it last and not have to
12 continually operate at the same volume of
13 chemical production.

14 Thank you.

15 COMMITTEE MEMBER SCOTT: Thank you.

16 Let me check to see -- this is
17 Commissioner Scott -- whether we have any other
18 hand raisers on this one?

19 MR. REGNIER: I don't see any.

20 COMMITTEE MEMBER SCOTT: Okay. While
21 Justin is checking, I will also recognize Thomas
22 Lawson from the California Natural Gas Vehicle
23 Coalition has also joined us.

24 Welcome, Thomas. Thank you for your
25 perseverance on signing into our WebEx.

1 If there are any other Members who have
2 joined -- Advisory Committee Members, who have
3 joined the WebEx, and would like to introduce
4 themselves, please let us know.

5 COMMITTEE MEMBER JAHNS: Commissioner
6 Scott, this is Claire Jahns at the Resources
7 Agency.

8 COMMITTEE MEMBER SCOTT: Hi. Good
9 morning, Claire.

10 COMMITTEE MEMBER JAHNS: Good morning.
11 I'd like to make a quick comment and bring some
12 additional information to the room, teeing off of
13 what some folks have said about both agricultural
14 and woody biomass waste.

15 So the draft Scoping Plan, the Climate
16 Change Scoping Plan, it had the 2030 emissions
17 targets which ARB released in January. One of
18 their recommendations in there is to establish an
19 interagency working group, I'll just read it,
20 "To develop a holistic plan to address excess
21 biomass generated by commercial, agricultural
22 and forestry operations in urban biomass
23 while minimizing greenhouse gas and black
24 carbon emissions through transitions and
25 technologies that can produce (indiscernible)

1 bio and other transportation fuels and other
2 commercial products and soil amendments. And
3 this working group will build upon a work
4 initiative by the 2012 Bioenergy Action
5 Plan.”

6 But I think the experience thus far of
7 the ARFVTP program will be really helpful in
8 helping us figure out what some of the kind of
9 utilization pathways might be after that supply
10 assessment. So I just wanted to kind of put that
11 on folks horizon. And I’m looking forward to
12 seeing what kind of solicitations we get on this,
13 this year, that might be illuminating for that
14 process.

15 COMMITTEE MEMBER SCOTT: Great. Thank
16 you. Okay.

17 It doesn’t look like we have any
18 additional public comments.

19 So I will suggest that we go now to the
20 Advisory Committee Member discussion of the
21 electric charging infrastructure.

22

23 MR. REGNIER: Oh, I’m sorry.

24 COMMITTEE MEMBER SCOTT: Okay.

25 MR. REGNIER: Sekita, I think, Sekita, if

1 you can hear us, you should be able to un-mute
2 and make a comment whenever.

3 COMMITTEE MEMBER SCOTT: Sekita, you are
4 un-muted on this end. If you can un-mute on your
5 end, and then feel free to jump in.

6 MR. REGNIER: Let me see, maybe if you
7 drop out and come back in.

8 COMMITTEE MEMBER SCOTT: Hold on just one
9 second.

10 MR. REGNIER: One sec. Okay. All right.
11 You should be good, Sekita.

12 COMMITTEE MEMBER GRANT: Hi. Can you
13 hear me?

14 COMMITTEE MEMBER SCOTT: Yes.

15 COMMITTEE MEMBER GRANT: Hello?

16 COMMITTEE MEMBER SCOTT: Yes. Hi,
17 Sekita.

18 COMMITTEE MEMBER GRANT: Yay. Hi
19 everyone.

20 COMMITTEE MEMBER SCOTT: Good morning.

21 COMMITTEE MEMBER GRANT: Thanks, Justin.
22 Good morning.

23 Yeah, thank you all for the work that's
24 gone into this and continues to go into this.

25 And I just wanted to make a couple comments on

1 this item on some of these upstream
2 considerations around biofuels and biogas and
3 using methane for transportation fuel.

4 One things I'd recommend is for Staff or
5 this Committee to consult more with environmental
6 justice communities, especially in the San
7 Joaquin Valley, that are working pretty closely
8 on -- so that the upstream impacts around
9 landfills, and particularly dairies, to get a
10 better understanding of what the local -- what
11 the local issues are with those industries and
12 how, if we're going to in some ways subsidize
13 them and really look to that market for our clean
14 fuels, to meet our clean fuel goals, making sure
15 we're doing it in a way that really ensures that
16 we're causing no harm, at the very minimum, but
17 ideally in a way that can benefit either
18 communities that are really close to a lot of
19 that waste.

20 So, yeah, (indiscernible) connect. But
21 ideally, if that hasn't already happened, really
22 connecting with local communities that are going
23 to be impacted by upstream biofuels and biogas
24 production.

25 And then I had a question, I guess, about

1 hydrogen. So I'm also on the Environmental
2 Justice Advisory Committee. And so one of -- in
3 looking at kind of stationary pollution sources,
4 I was surprised that hydrogen plants are a really
5 big emitter in disadvantaged communities.

6 And so this is along the same theme as
7 just kind of what's happening upstream. And this
8 is, you know, we know a little bit more about
9 natural gas being problematic from that
10 standpoint, but it looks like hydrogen, as well.
11 And I haven't really connected with CARB on this,
12 but I don't know if these plants are feeding into
13 fuels or into transportation fuels or to
14 stationary sources. I'm not sure how these
15 plants are operating. But it looks like they're
16 a pretty considerable source of pollution in both
17 GHGs and local criteria and toxic pollutants.

18 So a question in terms of how is the CEC
19 kind of looking into what some of those impacts
20 are upstream?

21 COMMITTEE MEMBER SCOTT: That is a
22 fantastic question that I don't have an immediate
23 answer to. We don't have our hydrogen team here.
24 So I've highlighted that in my notes as an
25 important follow-up.

1 COMMITTEE MEMBER GRANT: Great. Thank
2 you.

3 COMMITTEE MEMBER SCOTT: Any other
4 Advisory Committee Members on the biofuels,
5 before we change over to electric charging?

6 COMMITTEE MEMBER KAFFKA: This is Steve
7 Kaffka.

8 My understanding is that a lot of
9 hydrogen is generated out of the petroleum
10 industry.

11 COMMITTEE MEMBER SCOTT: Uh-huh.

12 COMMITTEE MEMBER KAFFKA: And it wouldn't
13 be surprising if the emissions of the refineries,
14 the oil -- petroleum refineries, aren't
15 attributed ---

16 COMMITTEE MEMBER SCOTT: Yeah.

17 COMMITTEE MEMBER KAFFKA: -- that the
18 hydrogen emissions aren't part and parcel of the
19 whole refinery process.

20 COMMITTEE MEMBER SCOTT: Uh-huh.

21 COMMITTEE MEMBER GRANT: Uh-huh. Okay.
22 That makes sense. Thank you.

23 COMMITTEE MEMBER GOLDSTEIN: Yeah. This
24 is Brian Goldstein with Energy Independence Now.

25 I actually, I've got a list of all

1 hydrogen production facilities on my desktop, on
2 the computer right now. The majority are right
3 now at refineries. They're using hydrogen to
4 lower the sulfur content of the fuel, which is,
5 you know, clearly preventing another type of
6 pollution.

7 But we've been doing a lot of work into
8 renewable hydrogen. Clearly, the CEC is looking
9 at a program to support some build-out of
10 renewable hydrogen production.

11 But, you know, I want to point out that
12 renewable hydrogen, even for refineries of
13 conventional fuels, has a potential to lower the
14 GHG refinery itself by 25 percent. That was a
15 recent DOE report that NREL presented in the
16 fall. And they said on top of that, if they were
17 willing to reuse the renewable hydrogen in their
18 furnaces to create heat, it could actually lower
19 the overall GHG impact of the refinery itself by
20 45 percent.

21 So whereas, you know, we're really
22 looking at ways to promote renewable hydrogen, I
23 think there is a lot of potential to have, you
24 know, even a positive impact on the conventional
25 fuel space. But it's really, you know, something

1 we're looking at right now and doing the analysis
2 (indiscernible).

3 COMMITTEE MEMBER GRANT: Thank you. I
4 think, yeah, the more of that we can integrate
5 and from this analysis, and also with the work
6 that you're doing, the more that that can get
7 connected with what's happening or the community-
8 based organizations working in some of those
9 hotspot communities, because some of them overall
10 are going up, it sounds like maybe they would be
11 going up -- emissions would be going up even more
12 if it wasn't for some of the technologies or
13 programs that you're introducing.

14 But just getting more clarity on kind of
15 how -- what we're supporting and, you know,
16 funding on the fuel side is impacting what's
17 going on in the same communities that we're
18 trying to kind of clear the air in and making
19 sure that one solution isn't actual a problem in
20 another way, and so it would be the full picture.

21 Thank you.

22 COMMITTEE MEMBER SCOTT: Any other
23 Advisory Committee thoughts on biofuels? Okay.

24 We will turn then to the electric
25 charging infrastructure.

1 And let's start with Advisory Committee
2 Members in the room.

3 Go ahead, Eileen.

4 COMMITTEE MEMBER TUTT: Hi. This is
5 Eileen Tutt with the California Electric
6 Transportation Coalition. I had a couple of
7 comments.

8 First, I just wanted to point out, for
9 the CEC staff presentation, when they talked
10 about EV charging infrastructure and the need to
11 perhaps relook at how investments are made as a
12 result of the VW and investor-owned utility
13 efforts -- and by the way, there's also
14 significant efforts on the side of the publicly-
15 owned utilities, too, installing infrastructure,
16 as well -- we have -- and I'll send it to you or
17 hopefully during this meeting, but we did an
18 analysis of given the states goals for electric
19 vehicles, looking at the VW settlement, the CEC
20 money, the IOU money, that we're still well below
21 the charging infrastructure needs.

22 So I would suggest that actually the only
23 thing that we know right now is that more funding
24 is needed. And so we are going to support the
25 \$17 million allocation because that, we believe,

1 is fair, given the amount of money you have
2 overall, but it's very insufficient. And the VW
3 money won't make up for the gap by a long shot,
4 and neither will all of the investment by the
5 utilities.

6 So I don't -- I wouldn't want to see that
7 number reduced or any suggestion that it might be
8 reduced, which I didn't really hear that. I
9 just -- what I heard was the CEC is going to be
10 evaluating that. And so I think this analysis
11 that we did could inform that. Then, oh, so,
12 yeah, because actually in the report it says that
13 these investor-owned utility investments are
14 expected to reduce the need for Energy Commission
15 funding, and that's actually not correct. And
16 then in the next paragraph it talks about the VW
17 funding.

18 So what I'll do is I'll send you the
19 analysis to show -- on pages 45 and 46, I would
20 like to see that discussion modified, because
21 certainly neither of those investments are doing
22 to reduce the need, unfortunately. We're still
23 going to be well fact, in fact, which I think is
24 a good thing because it provides opportunity for
25 a lot of private sector capital to be invested.

1 And hopefully, if we can get enough out there in
2 public funding, utility funding, VW funding, it
3 will spur investment from the private sector
4 beyond what we're currently seeing, which is
5 pretty anemic.

6 COMMITTEE MEMBER SCOTT: Great. Thank
7 you.

8 I'm glad you pointed that out on page 45
9 and 46, because I was going to make a
10 clarification that when we are thinking about the
11 VW investments, the IOU investments, the POU
12 investments, what we're really thinking is we
13 need to be flexible with where we make our
14 investments so that we're not being duplicative
15 of places where money is already going, to make
16 sure that we're expanding the pie as much as we
17 can. So we should make sure that the language
18 reflects that.

19 COMMITTEE MEMBER TUTT: And I want to
20 say, I really appreciate -- and I just think the
21 CEC staff is doing a fabulous job. So I
22 appreciate the fact that now we're giving you
23 more work and you're welcoming it. Because I
24 think it is going to be important to work
25 together. And I know that the utilities are

1 already working closely with VW, just to make
2 sure that we do have -- you know, we do get these
3 stations where they need to be and we aren't
4 overlapping or duplicative.

5 And just so you know, even in the areas
6 where there's high concentration of EV charging,
7 part of the reason for that is because almost all
8 of the charging is so oversubscribed. So we want
9 to get these charging stations in rural areas or
10 underserved areas, but we also recognize that
11 even in the urban core areas we just can't build
12 fast enough, which is not necessarily a bad
13 problem to have.

14 But thank you for offering to do even
15 more work than you're already doing.

16 COMMITTEE MEMBER SCOTT: Other
17 Advisory --

18 COMMITTEE MEMBER SHEARS: And this --

19 COMMITTEE MEMBER SCOTT: Go ahead.

20 COMMITTEE MEMBER SHEARS: This is John
21 Shears.

22 And I echo the sentiments just raised.
23 And, in fact, think we, Eileen and I and maybe a
24 couple other Advisory Committee Members had sort
25 of raised this same issue at the last Advisory

1 Committee meeting, which is with all the activity
2 that's going on, what it requires is not
3 necessarily less funding but, indeed, more and
4 better coordination between all of the activities
5 to make sure that any gaps are filled.

6 And, you know, as Eileen mentioned, the
7 need in certain areas where you already have a
8 lot of infrastructure is you still have the
9 problem, you know, where even Tesla, where it has
10 its charging depots, the demand could be so high
11 that, you know, even other Tesla owners have to
12 wait awhile in order to charge their vehicles.
13 And, you know, we're going to be seeing that
14 happening more and more on the SAE compliance
15 charging infrastructure going forward.

16 So it's still early days in terms of
17 figuring out where everybody is going to want to
18 be, you know, deploying their projects, and that
19 also include NRG, which is still carrying out
20 some deployments, and how to coordinate and avoid
21 duplication while maximizing synergy.

22 So I also echo the notion of better
23 coordination but not less funding.

24 COMMITTEE MEMBER KAFFKA: This is Steve
25 Kaffka.

1 I think that the electric vehicles are a
2 very exciting technology, and they are wonderful
3 vehicles. But is the fueling station model
4 really viable for electric vehicles? I mean,
5 maybe some -- maybe the Energy Commission ought
6 to be thinking kind of long term about some other
7 way of charging vehicles. Any of us who have had
8 the pleasure of being in rush hour traffic in
9 Southern California or the Bay Area know what a
10 stalled, you know, vehicle can do in terms of
11 making roads parking lots.

12 And so I just I guess this is an open
13 question, since I'm not much involved in that
14 issue. I'm just wondering if there may not be
15 some more radical ways of thinking about charging
16 vehicles while they're in use, or some faster way
17 to charge them? People will run out of charge.

18 COMMITTEE MEMBER SCOTT: So that's
19 another one that we could talk about.

20 Maybe, Eileen, if you want to --

21 COMMITTEE MEMBER TUTT: Just a quick
22 response. This is Eileen at Cal ETC again.

23 So I think that that's a really excellent
24 c one-mile buffer. I would suggest that, in
25 fact, especially with the VW money and with all

1 the investments, most of the VW money is focused
2 on things like really even faster charging than
3 fast charging networks. Certainly the utilities
4 are looking into that. The report references the
5 current approved applications, but there are 21
6 new applications in front of the PUC for the
7 investor-owned utilities, and the public-owned
8 utilities are already investing, they don't have
9 to go through the PUC. But for -- some of them
10 include fast charging.

11 I would also say that beyond the light-
12 duty vehicle market, these applications are
13 focused on the medium- and heavy-duty truck and
14 bus market, which we're also really looking to
15 electrify. And we believe that this investment
16 from the CEC will be needed to support and
17 leverage, again, the private sector funding and
18 the utility funding for electrification in the
19 medium- and heavy-duty truck and bus sectors.

20 So I know that's later on in the project,
21 but I'll just say that I think that, in any case,
22 the industry is evolving very quickly, not just
23 on the vehicle side but on the charging side, and
24 I think this is a response to what consumers
25 want.

1 I'll also mention, I have not heard of
2 any problem with EVs, you know, being -- you
3 know, blocking traffic or anything. That's not
4 something I think is -- there's certainly not
5 even anecdotal evidence of that, I believe.

6 COMMITTEE MEMBER SCOTT: I think he meant
7 if it was sitting in traffic, could it be
8 charging while sitting there.

9 COMMITTEE MEMBER TUTT: Oh. That's a
10 very -- yeah, that's an interesting idea,
11 electrify the roadways.

12 COMMITTEE MEMBER SCOTT: Right.

13 COMMITTEE MEMBER TUTT: Yeah.

14 COMMITTEE MEMBER SCOTT: Other Advisory
15 Committee Members?

16 COMMITTEE MEMBER SHEARS: Yeah. This is
17 John Shears again.

18 And I again just reprise that Simon and
19 I, on the last Advisory Committee meeting, sort
20 of mentioned that, you know, it's important to
21 track what's going on with charger technology.
22 But just because you have a charger with a
23 certain capability doesn't necessarily mean the
24 car will charge any faster if the car is not
25 designed to take full advantage of a higher

1 charging capacity from the charging equipment.

2 So there's been an evolution, you know,
3 in terms of how fast you can charge cars. First
4 generation Leafs, for example, can't charge
5 nearly as fast as the second generation LEAFs.
6 Even if the charger can push the power, it's not
7 going to -- the car can't accept it.

8 So there are two sides to what's going
9 on, and that's what the vehicle manufacturers are
10 designing in terms of the capacity of the vehicle
11 to accept a charge, and then what will be
12 happening on the ground in terms of the charging
13 equipment that's installed to be able to match
14 that capacity or anticipate what might be coming
15 in the next generation of vehicles that might be
16 able to accept a higher capacity. And then
17 there's also the -- you know, whether induced
18 charging, you know, from the ground, from a mat
19 on the -- charging mat on the ground, whether
20 that market will take off or not or whether it
21 will stick with the more familiar plug-and-play
22 style charging.

23 COMMITTEE MEMBER GRANT: Hi. This is
24 Sekita. Can you all hear me?

25 COMMITTEE MEMBER SCOTT: Yes.

1 COMMITTEE MEMBER GRANT: Okay. Cool. So
2 thank you for this part and for the comments that
3 have been made. Just a couple of things to add.

4 I really appreciate the focus on
5 financing and how we can really put it
6 effectively into bringing in private capital into
7 this. And I think there's some initiatives
8 through the Treasurer's Office. And even, you
9 know, private sector folks and kind of, yeah, the
10 banking industry is starting to be interested in
11 financing different components of the electric
12 vehicle sector, including heavy-duty vehicles and
13 passenger vehicles. I'm not sure quite sure, you
14 know, what exactly is moving with the charging
15 stations. So that's going to be something that I
16 can learn from you all. So happy to see that
17 moving along.

18 And then, of course, really looking for
19 how we can effectively target disadvantaged
20 communities and low-income communities with this
21 funding. I think this is kind of -- Greenlining
22 is involved with VW, as well as to keep this
23 moving at the CPUC and the IOUs. And that's kind
24 of a lot of conversations around that and hoping
25 that we can really have some champions with that.

1 Because I don't think that, you know, kind of the
2 apprehension that we've seen and kind of comments
3 around stranded assets and that type of thing are
4 really a good -- are really productive for what's
5 happening from what the state or the federal
6 government, how they're funding this industry.

7 That is the purpose of public funds, is
8 to really make sure that we're not relying on
9 trickle-down economics and we're starting with
10 those communities that are most polluted. And if
11 we really want to reach these goals, there should
12 be no stranded access at some point because, you
13 know, we want this technology to be ubiquitous.

14 So we'll probably flush that out if I can
15 get, you know, time to get some written comments
16 together. But happy to continue having
17 conversations with Staff on that.

18 And then the last thing is I think you
19 all already are doing this, which is, you know,
20 reminding to really be actively connected with
21 CARB on what's happening on the -- or, yeah, CARB
22 and -- I guess it's mostly CARB, yeah -- what's
23 happening on incentivizing the vehicles so that
24 we're really targeted in when and where we're
25 bringing in the charging station and what's

1 rolling out with, you know, some of the
2 carpooling programs, car sharing, vanpooling for
3 farmworkers, (indiscernible) is doing really
4 well. How are we, you know, ensuring that what's
5 moving forward by way of incentives on the
6 charging station side is kind of complimenting
7 that in an effective way?

8 Yeah, so those were my points. Thank
9 you.

10 COMMITTEE MEMBER SCOTT: Sekita, this is
11 Janea Scott. I wanted to mention two things
12 based on your comments.

13 One if that we are also focused on the
14 financing. We put together a Loan Loss Reserve
15 Program for small businesses to be able to get,
16 you know, like one or two chargers in place. And
17 we're excited to announce --

18 COMMITTEE MEMBER GRANT: Great.

19 COMMITTEE MEMBER SCOTT: -- that the
20 first one is together, and it's the Anza Electric
21 Corporation in Anza, California. And they're
22 just going one, but we're really excited about
23 that because it's kind of kicking that off. It's
24 a different type of model to get chargers out in
25 places. And they're going to be ribbon cutting

1 that one tomorrow in Anza, so that's pretty --
2 which is actually not that far from here.

3 And then you mentioned how to effectively
4 --

5 COMMITTEE MEMBER GRANT: That's great.

6 COMMITTEE MEMBER SCOTT: -- oh, thanks --
7 how to effectively target the low-income
8 communities. And of the things that we're
9 thinking about for our regional readiness funds
10 is putting together something similar, I don't
11 know if you follow our EPIC Program, but putting
12 together something similar to the EPIC challenge.

13 And basically what -- in the EPIC
14 challenge, they're looking at zero-net energy
15 communities. And in this one we would be looking
16 at electrically-charged communities. I don't
17 know what we're going to call it quite yet. But
18 the idea is that local communities can say, hey,
19 you know what, I'm going to work with my library,
20 the two mom-and-pop businesses, the school, a
21 multifamily building and draft up a plan for how
22 they would want to implement charging
23 infrastructure in their community. And those
24 will get to compete against each other for the
25 regional readiness funding. And then whoever we

1 pick would then in the next round of funding, we
2 would have the, you know, let's say -- on the
3 EPIC one, there were 13 winners. So for the
4 second round, those 13 winners get to compete for
5 implementation funds.

6 But the idea is --

7 COMMITTEE MEMBER GRANT: That's great.

8 COMMITTEE MEMBER SCOTT: -- if you put
9 together a fantastic enough proposal, even if you
10 don't get Energy Commission funds, maybe you get
11 San Joaquin Valley Air Pollution Control District
12 funds, you get DOE funds, you get EPA funds.
13 You're able to, because you've got such a great
14 plan in place, you may be able to get plan funds
15 from another place.

16 This is all sort of my idea right now.
17 The staff is working on putting that together.
18 John Kato tells me that we may do a workshop on
19 that. So when we put that together, we would
20 love to have your thoughts and anyone else who's
21 interested in how we can shape and design
22 something like that. And this is -- we're trying
23 to kind of come at regional readiness from a
24 different angle in terms of kind of getting that
25 infrastructure out there.

1 So that's -- we don't have --

2 COMMITTEE MEMBER KAFFKA: That's
3 sounds --

4 COMMITTEE MEMBER SCOTT: -- a date for
5 that --

6 COMMITTEE MEMBER GRANT: Yeah.

7 COMMITTEE MEMBER SCOTT: -- but stay
8 tuned.

9 COMMITTEE MEMBER GRANT: Yes. I look
10 forward to that. That's a fantastic idea. And I
11 appreciate you all taking that initiative because
12 it really allows for moving forward with plans
13 that are not kind of top-down but ideas and
14 strategies and business models that come from the
15 community, which I think will really help in
16 terms of the sustainability and use of these
17 charging stations.

18 Yeah, I would love to be plugged in as
19 you all move forward. The legislature is
20 supporting transformative climate communities
21 bill and concept which is providing targeted
22 funding for communities to kind of -- yeah, for
23 kind of the intense greening initiatives and
24 programs. And so this type of program that you
25 all are doing could help them build up the

1 transportation electrification funding strategy.
2 So I think there's opportunity to kind of
3 coordinate with what's happening there, as well.

4 COMMITTEE MEMBER SCOTT: Great. Yeah.
5 That's exciting. I hadn't heard about that
6 legislation.

7 And I should take it back, it wasn't my
8 idea. It was -- the EPIC team came up with this
9 idea, which is another funding program at the
10 Commission. And we thought it was awesome, so we
11 want to bring it into the transportation world.
12 So let me give credit --

13 COMMITTEE MEMBER GRANT: Great.

14 COMMITTEE MEMBER SCOTT: -- where credit
15 is due.

16 Yes, go ahead, Joe.

17 COMMITTEE MEMBER GERSHEN: Does it make
18 sense -- I'm just learning more about CCAs,
19 community choice aggregators, and I wonder if
20 there's some way to integrate with. I know Santa
21 Monica, the city I live in, is talking about
22 doing that in the next year. And it seems like
23 it might be an interesting way of moving forward
24 in that sort of a plan.

25 COMMITTEE MEMBER SCOTT: Uh-huh. That's

1 a great suggestion. I don't have any answers
2 yet. We haven't designed it, but --

3 COMMITTEE MEMBER GERSHEN: Yeah. Yeah.
4 I'm curious to learn more.

5 COMMITTEE MEMBER SCOTT: Yeah. Other
6 Advisory Committee Members on our topic of
7 electric charging infrastructure?

8 MR. ECKERLE: Yeah. This is Tyson
9 Eckerle with GoBiz.

10 COMMITTEE MEMBER SCOTT: Hi, Tyson.

11 MR. ECKERLE: Can you hear me?

12 COMMITTEE MEMBER SCOTT: YES.

13 MR. ECKERLE: Oh, good. Just on that
14 point, that last point on the community choice
15 aggregator, I think Sonoma Clean Power is doing a
16 lot of interesting stuff that Staff might want to
17 look into that, if you haven't already.

18 But then on the topic of the \$17 million,
19 I think I just wanted to echo, you know, what
20 Eileen had said, how important that is. But I
21 think the point that I wanted to add is that the
22 impact that the Energy Commission funding has is
23 really through the nimbleness and flexibility of
24 the program in being able to fund projects
25 throughout different utility districts. And so I

1 think that -- and I think where we're going with
2 the block grant type thing makes a lot of sense.
3 So I'm excited to see up ahead.

4 But I think the focus, again, on that
5 ability to fill gaps and be flexible is
6 paramount. And I commend the Energy Commission
7 for moving that direction.

8 COMMITTEE MEMBER SCOTT: Great. Thank
9 you.

10 And any other comments from Advisory
11 Committee Member on electric charging
12 infrastructure? Okay.

13 Hearing none, let me turn to public
14 comment in the room. Again, we just have five
15 folks who are here with us, so please feel free
16 to come on up to the corner of the table here.
17 And if you'd like to say something, introduce
18 yourself so the court reporter gets your name,
19 and go ahead and comment.

20 MR. BOESEL: John Boesel with CALSTART.
21 Thank you very much for the opportunity to
22 comment.

23 Just a word on the VW investment
24 settlement. That whole topic does feel a little
25 bit like it's the elephant in the room in so many

1 different rooms that I'm in these days. I would
2 offer that I think that the Energy Commission
3 have, in their recent solicitation, that in full
4 disclosure, we responded to and our proposal is
5 pending, that you created really a good mechanism
6 to distribute EV infrastructure funds. It
7 doesn't favor any one supplier, manufacturer.
8 It's competitive. It's open. It's transparent.
9 And I hope whoever wins has a really good
10 proposal.

11 But I will just say that, you know, I
12 hope that at the highest levels the Energy
13 Commission is urging, in the negotiations with
14 VW, that they consider directing their investment
15 toward this Energy Commission program. It would
16 be so much more beneficial for the state if that
17 funding went into that program versus into their
18 own company to set up their own competing company
19 to compete and possible even, you know, unfairly
20 with our existing companies in this space here
21 that have been toiling to make a profit for many
22 years. So I just think it is a really good
23 opportunity.

24 I will just -- I want to say that,
25 particularly relative to DACs, with the Energy

1 Commission funding to CALSTART for our San
2 Joaquin Valley Center, I just want to highlight a
3 project that we were able to put together with
4 local funds. It's in Fresno County and could
5 serve as a model.

6 We ended up -- Joseph, who had to go make
7 a presentation and will be back later, our
8 Regional Director here, worked to get local
9 funding from the Air District and from the Fresno
10 COG to put in a solar EV charger in each of the
11 small rural -- small towns in Fresno County, 13
12 towns. They each got a solar charger built by a
13 firm here in California, Envision Solar. And 12
14 of those 13 towns are in disadvantaged
15 communities. So they now have free charging,
16 powered by the sun. So that's one county here in
17 the San Joaquin Valley.

18 You know, it just might be interesting to
19 think about the CEC providing matching funds for
20 other local counties and air districts to match
21 that to help -- not only help put money into
22 DACs, but also provide charging into rural areas,
23 because this got funding into rural areas, the
24 charging into rural areas, which is also great.

25 So I just wanted to put that out as yet

1 another model where (indiscernible) CEC
2 (indiscernible) monies serve as a challenge grant
3 to help leverage others.

4 COMMITTEE MEMBER SCOTT: Great.

5 Any of our other four, would you like to
6 say something on electric charging? Come on up.

7 MR. SCHOTT: Good morning.

8 COMMITTEE MEMBER SCOTT: Good morning.

9 MR. SCHOTT: John Schott with
10 ChargePoint.

11 Thanks for the opportunity to be here
12 today to participate in this process and to make
13 these public comments. As always, we'll follow
14 up with these in writing.

15 But ChargePoint submitted our written
16 comments to the Investment Plan Update in
17 October. So just to reiterate some of those
18 things, we're very supportive of the overall
19 plan. We feel that the \$17 million allocated to
20 EV charging infrastructure is appropriate at this
21 time.

22 We're also very thrilled and supportive
23 of the \$5 million that's allocated in there for
24 manufacturing, specifically for light-duty
25 vehicle components, very exciting for

1 ChargePoint. And ChargePoint has some exciting
2 projects going on we're considering in looking at
3 that funding that could be very helpful for us.

4 We, however, do want to stress the
5 importance of the fact that we don't currently
6 have a goal for the number of chargers that we
7 need in the state, or at least an agreed upon
8 goal, you know, similar to the goal for vehicles.
9 There's definitely disagreement among
10 stakeholders in the industry as to how many
11 charging stations we need throughout the state
12 and different regions, both, you know, workplace,
13 multifamily charging, home charging, corridor or
14 destination fast charging, Level 2 charging. So
15 we think that we really need to have a goal there
16 and attach rate to be able to measure our
17 progress to know where we are toward meeting our
18 goal and supporting the number of vehicles, ZEVs
19 on the road that we intend to get to.

20 And finally, just also want to say that
21 we're very supportive of the GFO, the grant
22 funding opportunity, a block grant for EV
23 charging projects. ChargePoint sees that as a
24 great step forward and what the market could need
25 now in terms of getting funding out into the

1 market and deploying charging projects more
2 quickly, with less administration and overhead.
3 And also will provide -- could provide, if done
4 correctly, greater flexibility to adapt to
5 markets as they, you know, need -- their needs
6 change over time.

7 As somebody mentioned earlier, the
8 technology, specifically for vehicles, is moving
9 at a lightning speed. And while, you know, we
10 have vehicles today that have 90 to 100 miles
11 worth of range, you know, we're getting into the
12 200-250 range, so we'll need faster and faster
13 charging to support the needs of those vehicles.

14 So thank you.

15 COMMITTEE MEMBER SCOTT: Great. Thank
16 you.

17 We have one more public comment from the
18 room.

19 And Advisory Committee Members, we have
20 un-muted on this end. If you want to mute
21 yourselves on your end until you're speaking,
22 that might help with the background noise. And
23 if not, that's okay, too.

24 MR. SANSON: Perfect. Hello everybody.
25 My name is Dante Sanson with the Valley Air

1 District. I also want to thank everybody for
2 allowing me the opportunity to add a few public
3 comments here.

4 I know there was some earlier discussions
5 about maybe electrifying the roadways. If there
6 was any possibilities in the future, I would love
7 to maybe learn a little bit more about that, if
8 there are there a little more (indiscernible).

9 We do offer our program here at the
10 Valley Air District known as our Charge Up
11 Program. I have seen a few barriers that we're
12 trying to overcome. I know that we do offer both
13 Level 2 and Level 3 DCC fast chargers. As we all
14 know, there a lot of barriers for the DC fast
15 chargers, especially focusing on peak hours. And
16 I just wanted to see if maybe we could get some
17 more focus on maybe combating the peak hours, the
18 cost of electricity for that.

19 Another item that we have seen is that as
20 far as cost-wise goes, the wild card that we've
21 seen is installation. Now an older
22 infrastructure, of course, we all know can cost a
23 lot more. We have added new equipment last year
24 in January for solar EV chargers. We are working
25 with the Fresno County Rural Transportation

1 Agency on solar EV chargers. I know John
2 mentioned a little bit about that, for 13 sites.
3 What's really nice about these EV chargers is
4 that, of course, it's off grid. You know, again,
5 older communities can cost a lot more for the
6 underground infrastructure. But going around
7 this, you can kind of go around that and maybe do
8 a price comparison. And sometimes, especially in
9 the rural communities and disadvantaged
10 communities, it can be a little more affordable
11 in comparison to updating the underground
12 infrastructure. So I want to see if maybe you
13 could support a little more on the technology of
14 solar EV chargers.

15 And that was really about it, so thank
16 you.

17 COMMITTEE MEMBER SCOTT: Okay. Thank
18 you.

19 Anybody else? Okay.

20 Let me turn to Justin to see if we have
21 hand raisers on the WebEx to discuss the -- not
22 discuss but provide comments on the electric
23 charging infrastructure?

24 MR. REGNIER: So we have R. Bong
25 Vergara. Let me go ahead and un-mute him. We've

1 also got Mark Roest again.

2 MR. VERGARA: Hi. Good morning. Thank
3 you for the opportunity to give comment remotely.
4 My name is R. Bong Vergara. I'm Adjunct
5 Assistant Professor at USC Suzanne Dworak-Peck
6 School of Social Work. I'm in the Community
7 Organization and Business Innovation Department.
8 I'm also the founder for a site for -- we're a
9 nonprofit, focused on building a pipeline of
10 grassroots clean tech innovators.

11 I wanted to echo some of the remarks on
12 making -- creating opportunities for grassroots
13 communities. And would like to comment on our
14 view of how to reduce access to -- how to reduce
15 access barriers to green technology as something
16 that isn't just should be seen as not only
17 reducing consumption barriers, but reducing
18 barriers to coproduction, and by coproduction
19 barriers, I'm talking about barriers that stand
20 in the way for grassroots early stage innovators.

21 And I'm hoping that in the spirit of you
22 wanting to more meaningfully engage grassroots
23 communities, especially emerging communities,
24 that you consider not only making and opening up
25 eligibility requirements for grassroots

1 applicants and nonprofits, but more importantly
2 and perhaps more profoundly, thinking of ways to
3 work meaningfully with nonprofits and grassroots
4 early stage innovators to reduce these barriers
5 that are standing in their way, introduce
6 electric energy solutions to the market.

7 COMMITTEE MEMBER SCOTT: Thank you.

8 I think we had one more hand raiser.

9 MR. REGNIER: Okay, Mark, you should be
10 clear to speak, if you'd like.

11 MR. ROEST: Hello. This is Mark Roest.
12 Can you hear me?

13 COMMITTEE MEMBER SCOTT: Yes.

14 MR. ROEST: Yeah? Was that a yes?

15 COMMITTEE MEMBER SCOTT: Yes.

16 MR. REGNIER: Yes.

17 MR. ROEST: Okay. Thank you. So I'm in
18 Green Fleet Group as a result of being in a
19 battery startup. And Green Fleet Group is a one-
20 stop shopping service for electrification and
21 transportation at the fleet level. We include
22 service switching which uses one primary circuit
23 to charge four cars or trucks on rotation,
24 controlling capacity charges and impacts on
25 utilities, and cutting the typical cost of an

1 installation by 50 to 85 percent, depending on
2 how many primary circuits would need to be
3 installed to support single-port charging
4 stations on a given project.

5 We also include solar battery conversion
6 of diesel and gasoline engine drive train to full
7 battery electric, fleet financing and off-road
8 electric vehicles. So we, during the CEC
9 solicitation that we missed, we partnered with
10 Breathe California which developed processes in a
11 very successful anti-tobacco campaign awhile
12 back. And we want to partner with local
13 community development and environmental justice
14 groups for outreach and education, blending
15 Breathe California's methodology with the
16 processes that these groups already use. And we
17 have a plan for how to maximize the uptake of
18 charging stations by employers and of electric
19 vehicles by workers, which we'd like to discuss
20 privately.

21 My company, SeaWave Battery, needs small-
22 scale funding, under \$100,000, to get to do
23 testing and validation of the technology we've
24 already done. And in order to do that, we also
25 need to do patent filing to protect our RP. And

1 then we will -- then about 6 months later or 12
2 months later, we should have a highly disruptive
3 product in manufacturing cost structure and
4 performance for batteries and solar and be ready
5 to build a pilot plan.

6 So I need some help finding the small-
7 scale funding to get access to the venture
8 funding, which is significant on offer if I can
9 provide the validation of the product.

10 COMMITTEE MEMBER SCOTT: Okay. Great.
11 We will have our appropriate staff person follow
12 up with you offline on that topic.

13 Do we have any other --

14 MR. ROEST: Thank you very much.

15 COMMITTEE MEMBER SCOTT: You're welcome.
16 Okay.

17 I'd like to do one more, maybe, before we
18 break for lunch, either that, or finish out our
19 fuel infrastructure. Are people hungry or can we
20 get another 15, 20 minutes here?

21 MR. REGNIER: I just got something from
22 Lisa McGhee.

23 COMMITTEE MEMBER SCOTT: I'm sorry. We
24 have one more hand raiser on electric charging
25 from Lisa McGhee.

1 MR. REGNIER: You should be --

2 COMMITTEE MEMBER SCOTT: You've been un-
3 muted. Please go ahead.

4 MS. MCGHEE: Hi. Yes. Can you hear me?

5 COMMITTEE MEMBER SCOTT: Yes.

6 MS. MCGHEE: Hello?

7 COMMITTEE MEMBER SCOTT: Yes, we can hear
8 you. Please go ahead. Oh, okay. Perfect. All
9 right. Thank you. I wasn't sure of that. Yes,
10 please. Thank you for this opportunity to
11 comment.

12 And my comments have to do with
13 opportunities in heavy-duty vehicles that,
14 obviously, we've been speaking about here today.
15 It certainly needs more support because the
16 technology is moving so fast. I am in support of
17 the funding. And my comments have to do with the
18 Class 2-B vehicle, which I didn't see in
19 particular funding. And my comments have to do
20 with that 50 percent of all commercial vehicles
21 come from the Class 2-B group. So if we're
22 really going to expand that pie and really have
23 the best opportunities, I would consider some
24 opportunities there. And just because
25 specifically today there is only one electric 2-B

1 vehicle available, which is from Zenith Motors.
2 And I would just look at that as one opportunity
3 that could possibly be in this as we try to move
4 to accelerated option by high utilized vehicle
5 miles traveled of different various locations,
6 such as off-airport parking, hotel, car rental,
7 so there are so many, universities, service
8 delivery vans. And when I look at the charging,
9 we certainly do have MUD (phonetic) and workplace
10 and other types of fleets that will be affecting
11 the load on the grid.

12 So you know, I would like to see that
13 we're also not only looking at just grid-charged
14 solutions for electric vehicles, but also with
15 renewables, which is a more advanced technology
16 that is available today and something that would
17 be beneficial as it relates to grid load. And
18 when multiple vehicles start utilizing more
19 charging, this is one way for us to, I think,
20 support the goals, as well as renewable
21 determent.

22 And my comments directly relate, also, to
23 the fact that we really, really, really need more
24 data. We just don't have enough data, with
25 technology moving as fast as it is. I would like

1 to make sure that whatever we do with this
2 funding, that we procure or at least have funding
3 specifically for more demonstration, and
4 especially when it comes to the medium-duty. And
5 I say that with medium-duty because, obviously,
6 light-duty has been around and it's got its own
7 silo. Heavy-duty is mostly funded by FTA
8 funding. And you've got the Class 2-b, 3, 4
9 vehicles that are private vehicles and is your
10 highest volume of vehicles.

11 And my last comment has to do with how
12 technology is moving so fast, we have got
13 basically just the first generation of technology
14 out there, which doesn't include fast charging.
15 And we do still need more data in order to
16 understand more about that type of vehicle mile
17 that was traveled and more about the vehicles
18 themselves when they are charging.

19 And when it comes to EVs, if we're going
20 to be comparing apples to apples when we're
21 trying to displace other types of fuels, I do
22 have a concern as it relates to there is no
23 standard for efficiency of EV vehicles. So we
24 really aren't clear on the number of miles per
25 kilowatts or the number of kilowatt hours per

1 mile. And this could be an issue when you're
2 really trying to compare apples to apples without
3 a standard.

4 Thank you.

5 COMMITTEE MEMBER SCOTT: Thank you.

6 Okay.

7 We will now turn to the hydrogen
8 refueling infrastructure discussion. And let me
9 first start with our Advisory Committee Members
10 here in the room.

11 (Colloquy)

12 COMMITTEE MEMBER TUTT: Eileen Tutt with
13 Cal ETC. I actually have just one clarification
14 question, which I should have probably asked when
15 that was happening.

16 So on slide 19, I'm just wondering where
17 the vehicle projections come from. I think going
18 from 300 vehicles to 6,000 in one year between
19 '16 and '17 seems a little ambitious. And then
20 it does look like in most years, the sales
21 doubled, which I think is not necessarily -- it
22 wouldn't surprise me, necessarily. But I'm just
23 wondering where those -- I mean, I think doubling
24 per year is actually possible. But I think a
25 100-time increase or whatever, but going from 300

1 to 6,000 seems a little bit ambitious. And I'm
2 just wondering where the numbers came from?

3 COMMITTEE MEMBER SCOTT: So my
4 understanding -- this is Janea Scott -- is when
5 we -- Air Resources Board did a survey and
6 reached out to the OEMs and asked them how many
7 vehicles, and then they added that together and
8 that's the number.

9 COMMITTEE MEMBER TUTT: Okay.

10 COMMITTEE MEMBER SCOTT: There's -- if
11 you -- we have to ask the ARB person to get the
12 exact details, but that's my --

13 COMMITTEE MEMBER TUTT: Okay.

14 COMMITTEE MEMBER SCOTT: I'm not sure if
15 you're the person who helped with the hydrogen
16 report, so I don't want to put you on the spot,
17 but --

18 COMMITTEE MEMBER ROBERTSON: I wasn't
19 deployment in it, but my understanding is
20 consistent with yours.

21 COMMITTEE MEMBER SCOTT: Okay.

22 MR. ECKERLE: And, Commissioner Scott, I
23 can weigh in, too. This is Tyson with GoBiz.

24 COMMITTEE MEMBER SCOTT: Oh, yes, of
25 course. Go ahead, Tyson.

1 MR. ECKERLE: So just as an example,
2 Eileen, the report has predicted 331 in 2016 and
3 we ended up with 1,100 on the road at the end of
4 2016, so that's pretty good. But what happened,
5 ARB goes out with a survey, and it's kind of a
6 blind survey that only ARB sees the results. And
7 they aggregate it and crunch some things. But
8 it's basically based on what the automakers have
9 projected, you know, based on the projections of
10 station availability. And so when there's delays
11 in the cars coming out, it's often because the
12 stations have been delayed. But last year, like
13 I said, they exceeded what was expected.

14 COMMITTEE MEMBER TUTT: Okay. Thank you,
15 Tyson. That's really helpful. I just wanted
16 to -- I wanted to understand where the numbers
17 came from.

18 MR. ECKERLE: And we can connect you,
19 too, with the ARB staff who does that. You know,
20 they can't share particulars for each automaker,
21 but at least on the survey process, if you want.

22 COMMITTEE MEMBER ROBERTSON: Part of it
23 is a number of available models are just now
24 coming available, so they couldn't sell them last
25 year and (indiscernible) numbers.

1 COMMITTEE MEMBER TUTT: Okay

2 COMMITTEE MEMBER SCOTT: And other
3 Advisory Committee from here in the room?

4 Well, let me check with Advisory
5 Committee Members on the phone. Comments on
6 hydrogen refueling infrastructure allocation?

7 COMMITTEE MEMBER WARD: Hi. This is
8 Justin Ward. I just wanted to maybe say thank you
9 to everyone for the continued commitment to grow
10 the hydrogen infrastructure. I think the plan
11 looks good.

12 I think one thing, maybe moving forward
13 we should maybe think about it more explicitly, I
14 think it's kind of implied in the Investment Plan
15 itself, but is to think a little bit more
16 explicitly about redundancy in some of the sites.
17 I think just feedback we're getting from
18 customers directly these days are showing how
19 important redundancy is in key locations where
20 there may be an isolated station. So just
21 something to think about as we continue to march
22 forward towards getting these hydrogen stations
23 across the state.

24 COMMITTEE MEMBER SCOTT: Great.

25 COMMITTEE MEMBER GOLDSTEIN: Hi. This is

1 Brian Goldstein. I'd like to thank the
2 Commission, as well. I think the program is
3 moving along nicely. Last year was a real banner
4 year. I mean, even in talking about the numbers
5 of vehicles on the road going from, you know,
6 basically a handful to well over 1,000 within one
7 year, you know, over 20 stations opening up
8 within one year, it's really, excuse me, a good
9 time in that space. And it's exciting to see the
10 years of work kind of culminate in all these
11 station openings.

12 I'd echo Justin's comments. I am also
13 hearing kind of the need for redundancy in
14 specific markets. And also hearing grumblings
15 about increased capacity already. I think that
16 last year's rollout was so successful, I think
17 stations are a lot busier than they were
18 expecting already. So I think that in future
19 plans -- and I think that, actually, the team is
20 probably already looking at capacity issues. I
21 just wanted to bring that up, just to make sure
22 it's on the record that I think we're going to
23 need some bigger stations moving forward.

24 But thanks again for allowing EIN to
25 participate. And thanks for all of your work on

1 the hydrogen plan here.

2 COMMITTEE MEMBER LAWSON: Hi. This is
3 Thomas. I had a couple of comments.

4 COMMITTEE MEMBER SCOTT: Go ahead.

5 COMMITTEE MEMBER LAWSON: Oh, I'm sorry.
6 My first comment was how does this relate to
7 different pots of money for specific alternative
8 fuels? I saw a couple articles awhile back that
9 talked about some folks are using a multiple
10 fueling station. And I don't think there's any
11 in California, and I could be mistaken. But how
12 would that work if, you know, next year, 2018,
13 2019, or even at the end of this year folks are
14 looking to combine two or more fuels on a fueling
15 station, how would that -- how would the money be
16 allocated that way?

17 MR. KATO: So this is John Kato.

18 Just to add to that, that's actually
19 already occurring. I think one of the
20 interesting and important aspects of the hydrogen
21 station rollout is the ability for them to
22 actually exist on the same footprint of your
23 traditional gasoline station. And we have a few
24 stations throughout California that actually have
25 multi-fuel stations that actually have the

1 traditional gasoline, natural gas and hydrogen in
2 one service area. So I think that could be a
3 growing trend and opportunity for it being a
4 diverse station, to service multiple fuels and
5 customers. And I think just the market will play
6 out where there's more needs, and that will
7 probably dictate how the stations become
8 configured.

9 COMMITTEE MEMBER LAWSON: Oh, perfect.
10 That's great. That's good to hear.

11 My second comment and my last comment
12 before -- not to keep anyone from lunch, is, you
13 know, when I'm looking at where we are in
14 (indiscernible) and where we need to be in the
15 future, 2020, 2030, and for those of us that are
16 still going to be active and involved, you know,
17 2050, I think that there has to be a full
18 acceptance of trying to commercialize alternative
19 fuel vehicle infrastructure if we want to get to
20 these goals, these lofty goals that we have,
21 which are 100 percent supportive, you know, at
22 some point we are going to have to change the
23 consumers mind and habits, as well as their
24 desire to be green. That has to go along with
25 it. And if you have to pass 15 gas stations

1 before you get to an alternative fuel vehicle
2 fueling station, it's just not going to work.

3 And I know that the federal government,
4 you know, under Obama in 2014, I think, signed
5 the FAST Act, and it had some corridors. And I
6 believe there's some funding trying to, you know,
7 bolster those corridors. That's something that
8 we should really, I think, take a look at. And
9 those corridors are not necessarily -- they don't
10 pick technology. There's electric vehicle
11 charging corridors. There's a hydrogen car
12 corridor, as well as a natural gas refueling
13 corridor designations.

14 And so what I want to do and what I want
15 to focus on, I think the money is great and I
16 think what we're doing is right on the money, but
17 I want to figure out is how do we grow and
18 commercialize alternative fuels in this
19 particular state so that it becomes more a part
20 of what people are doing in their everyday kind
21 of vehicle transportation lives?

22 So I just wanted to put that on the
23 table. It's a constant theme that I'm constantly
24 trying to think about. And I would appreciate
25 everyone else beginning to have that conversation

1 so that we can kind of put our heads together and
2 solve that particular hurdle.

3 COMMITTEE MEMBER SCOTT: Great. Thank
4 you.

5 Do I have other Advisory Committee
6 Members on the phone who would like to speak to
7 the hydrogen refueling infrastructure allocation?

8 COMMITTEE MEMBER SHEARS: Yeah. This is
9 John Shears. And I'd also like to thank the
10 Commission for continuing to fund the hydrogen
11 side of the fueling infrastructure. I think the
12 program is showing great signs. And I understand
13 that we may have some new and exciting entrants
14 coming into the fueling market as a result of the
15 successful, short but successful history of the
16 program so far, so I thank the Commission.

17 MR. ECKERLE: Great. This is Tyson
18 Eckerle of GoBiz.

19 Just to echo that, in strong support. I
20 think this is an incredibly part of the
21 portfolio, so thank you for remaining committed
22 to hydrogen.

23 That's it. So thank you.

24 COMMITTEE MEMBER KAFFKA: This is Steve
25 Kaffka.

1 At the risk of repeating myself, I would
2 like to emphasize that it would be good to
3 support alternative pathways to the generation of
4 hydrogen. Those could be from surplus wind and
5 solar power, but also from biomass.

6 COMMITTEE MEMBER SCOTT: Uh-huh.

7 COMMITTEE MEMBER SHEARS: Yeah. This is
8 John. Just to bring it up, because I know if I
9 didn't, Brian or Justin would, just to let Steve
10 know there's a lot of work going on in the
11 background right now to try and figure out how to
12 go about that and what the, you know, challenges
13 are. And then, of course, part of the challenge
14 is getting the funding to help do some of the
15 critical analysis.

16 But we're all looking at the same crystal
17 ball on that one, Steve, so thanks.

18 COMMITTEE MEMBER SCOTT: Any other
19 comments from Advisory Committee Members on the
20 phone about the hydrogen refueling
21 infrastructure? Okay.

22 Let me turn to our members of the public
23 here. Would any of you like to say something
24 about hydrogen refueling infrastructure? Okay.
25 I'm getting head shakes here in the room.

1 Do we have, Justin -- getting a head
2 shake from there. Okay.

3 So let's see, finish up natural gas
4 fueling infrastructure, just so we finish fuel
5 infrastructure, and then break for lunch? Okay.
6 Great.

7 So let us turn to the natural gas fueling
8 infrastructure. And let me ask our Advisory
9 Committee Members here in the room if you have
10 comments? I might ask again when Joe comes back.

11 Let me turn to Advisory Committee Members
12 on the WebEx.

13 COMMITTEE MEMBER SHEARS: I guess I'll --
14 oh, go ahead. Sorry. I was just going to say
15 that --

16 COMMITTEE MEMBER SCOTT: This is John
17 Shears.

18 COMMITTEE MEMBER SHEARS: -- it would be
19 nice to hear an update from the Natural Gas
20 Vehicle Coalition. But at the same time, we just
21 also wanted to offer up that, obviously, with the
22 Cummins low-NOx engine, which right now they have
23 the 8.9 liter, was certified. And their 12
24 liter, probably in the next year, might get
25 certified. It would be good to just monitor

1 sales trends there and whether that is leading to
2 an unmet need for fueling infrastructure in the
3 markets where those engines end up being sold.

4 COMMITTEE MEMBER LAWSON: Yeah. Thank
5 you for that intro. That was kind of -- some of
6 the points I was going to make. I appreciate
7 that.

8 One of the things that --

9 COMMITTEE MEMBER SCOTT: That's Thomas
10 Lawson.

11 COMMITTEE MEMBER LAWSON: Yeah. And I'm
12 sorry. This is Thomas Lawson, the California
13 Natural Gas Vehicle Coalition.

14 We do know that the 8.9 liter is
15 available for purchase. We have found that it
16 fits into the transit and refuse truck categories
17 very well. The 11.9 liter, we are expecting in
18 2018. So we believe that when we're having
19 conversations about 2017 and 2018 funding, that
20 funding year, that it has to include, I think,
21 what we think will happen with the increase in
22 usage of fuel, as well as stations, as well as
23 users on the 11.9 liter.

24 For those that are also aware, the
25 ports are developing a new Clean Air Action Plan

1 that is going to significantly accelerate getting
2 the port truck population cleaner. And we expect
3 that the 11.9 liter will be a very integral part
4 in that.

5 So we think that that is -- you know,
6 everything is going in the right direction, in
7 our opinion.

8 I did have a question. And I didn't see
9 it in the documents, so maybe I overlooked it.
10 But with what's allocated here, the \$2.5 million,
11 how many fueling stations do we see that funding?

12 MR. ORENBERG: Not off the -- this is
13 Jacob Orenberg.

14 Unfortunately, I don't have -- well, it
15 might fund up to five stations with \$2.5 million.

16 COMMITTEE MEMBER LAWSON: Five brand new
17 stations we're talking about; right?

18 MR. ORENBERG: Yes.

19 COMMITTEE MEMBER LAWSON: Good. That's
20 good to know.

21 Yeah, you know, I think that, you know,
22 for folks that are switching to the 11.9 liter, I
23 think that they already have a fueling
24 infrastructure. So I don't know what the
25 Advisory Committee's plan is for folks that need

1 to either upgrade or expand fueling stations. Is
2 that money, the \$2.5 million, eligible for that
3 or is that additional pot of money, is that
4 another thing that we need to tackle at some
5 other time?

6 MR. ORENBERG: So I believe that the \$2.5
7 million for natural gas fueling infrastructure
8 would be technically open to upgrades. I don't
9 recall if the past solicitations have actually
10 done that. I believe the most recent
11 solicitations we've released have all been for
12 new stations.

13 And, of course, for several years now we
14 have been focusing this funding exclusively on
15 municipal government fleets and school districts.

16 COMMITTEE MEMBER LAWSON: Perfect. Yeah.
17 And I do want to bring up -- because my next
18 point was school districts. And, you know, the
19 ARB sent out a grant for pilots for school
20 districts. And we know school districts don't
21 have as much money as they would like to do all
22 the things that they would want to do for our
23 kids. But we did learn, I think through some
24 very important questions from ARB board members
25 and the data that was presented, in my opinion,

1 there's way too many old diesel buses still on
2 the road in our state. And I think that the more
3 we can do to help school districts become
4 equivalent to what we were able to do in the
5 transit sector, I think would be beneficial, not
6 only to our clean air goals but also to our kids
7 and their health.

8 And so I know that the 8.9 liter is a
9 viable option for the school bus application.
10 We've had a couple of school bus manufacturers do
11 that, purchase those engines. But I did want to
12 just say that we should figure out a way to
13 equally help school districts be part of that
14 infrastructure piece, as well, so I wanted to put
15 that on the table. And, you know, we appreciate
16 the allocation and thank you very much.

17 COMMITTEE MEMBER SCOTT: Thank you.

18 Any other comments from Advisory
19 Committee Members on the natural gas fueling
20 infrastructure allocation?

21 COMMITTEE MEMBER KAFFKA: This is Steve
22 Kaffka.

23 A number of the projects that are
24 generating -- starting to generating biogas
25 have -- often do it for their own fleets. So,

1 for example, the CR&R project in Perris, our
2 fleet are powering their own solid waste
3 collection vehicles.

4 But they've also, with support from the
5 Energy Commission, developed a pipeline
6 connection so that the biogas that they generate
7 in surplus of their fuel needs could be pipeline
8 injected and presumably drawn out elsewhere for
9 fueling of vehicles. The interconnection costs
10 and some of the policy barriers to that are still
11 fairly formidable. And I know it's not strictly
12 a matter for the Energy Commission, but the
13 investor-owned utilities and other groups that
14 maintain those pipelines have to be committed to
15 developing, you know, a distribution structure
16 where it's where and whenever possible, and
17 hopefully with much less cost.

18 The other thing that I would say is that
19 we did some of the work on evaluating the cost of
20 dairy digesters and biogas, and they are quite
21 high. And even with perhaps selling fuel from
22 such sources for milk trucks or whatever other
23 uses, it may not be those transportation fuel --
24 the values may not be sufficient to support the
25 capture of the fugitive methane from some of the

1 dairies' systems without great economic cost to
2 the dairies, even to the point of their giving up
3 production.

4 So we have to have a broader
5 understanding of all of the co-benefits that are
6 potentially possible and linked to digester
7 projects. These might include upgrading of
8 surplus nutrients in dairy systems and various
9 elsewhere in agricultural. Those will also have
10 costs and I think those should be acknowledged
11 and considered in this program. Thanks.

12 COMMITTEE MEMBER SCOTT: Thank you.

13 Other Advisory Committee Members on
14 natural gas fueling infrastructure? Okay.

15 I'll turn to our members of the public
16 here in the room. Come on up, John.

17 COMMITTEE MEMBER LAWSON: Oh, wait.

18 COMMITTEE MEMBER SCOTT: Go ahead, sir.

19 COMMITTEE MEMBER LAWSON: Wait. I'm
20 sorry. This is Thomas. I was having a hard time
21 un-muting.

22 I had a question about the -- a follow-up
23 question or inquiry about the biodigesters.

24 So if a group of dairies wanted to build
25 a fueling station, would they be eligible for

1 this money?

2 COMMITTEE MEMBER SCOTT: Say -- I'm
3 sorry. Can you say that one more time, if a
4 group of --

5 COMMITTEE MEMBER LAWSON: Dairies got
6 together, built a biodigester and wanted to turn
7 that methane into RNG and use it to fuel trucks
8 and put a fueling station there, would they be
9 able to access this money?

10 COMMITTEE MEMBER SCOTT: Yeah,
11 potentially. And the reason I answer it that way
12 is because we haven't designed a solicitation for
13 it yet. So --

14 COMMITTEE MEMBER LAWSON: Okay.

15 COMMITTEE MEMBER SCOTT: -- that will be
16 an important part if we do a pre-solicitation
17 workshop where we're often looking for comments
18 as we're designing solicitations, to weigh in
19 then so we can consider that as we're designing
20 our grant funding opportunity.

21 COMMITTEE MEMBER LAWSON: Great. Thank
22 you.

23 COMMITTEE MEMBER SCOTT: Yeah.

24 Any others before I go to public comment?

25 Okay.

1 Go ahead, John.

2 MR. BOESEL: Okay. John Boesel with
3 CALSTART.

4 I think this is a really important area
5 of investment. It is interesting that the
6 current year's solicitation was undersubscribed.
7 I think the fundamental issue right now is that
8 diesel prices are so low that a lot of fleets are
9 feeling a little bit challenged on the economics.
10 Yet, at the same time, if you look at the San
11 Joaquin Valley, you look at the South Coast, they
12 need dramatic NOx reductions. And we could
13 really use the ultra-low NOx or the near-zero
14 emission natural gas engines that Cummins has
15 developed. We want to make sure that the launch
16 of this first engine size is successful and that
17 they will continue with their plans to roll out
18 others.

19 I think that, you know, what we're
20 seeing, particularly here in the San Joaquin
21 Valley, is that if you have to go to a retail
22 natural gas station, you are going to pay a
23 higher price than diesel. But if you are able to
24 fund, put in your own station, then I think you
25 can -- the economics can really improve and you

1 can actually compete against diesel. That's why
2 UPS last year bought more natural gas trucks than
3 they did diesel trucks, because those economics
4 work and they already have the stations.

5 So I would really recommend that we look
6 for synergies, particularly here in the San
7 Joaquin Valley, to do RNG production, tie it to
8 these stations, help new fleets get into the game
9 by basically underwriting the cost of their
10 station so that they don't have to amortize the
11 cost of those stations into the price of fuels,
12 and they don't have to go out into the retail
13 market and buy that.

14 And so I think, particularly with our
15 center, this is going to be a big priority for us
16 in this next year is to look at that opportunity.
17 CDFA has got money for the digesters, and I think
18 we need to look at that.

19 I think we've got to look at, maybe with
20 next year's money and maybe using the left-over
21 money from last year, is to perhaps provide
22 incentives for those station operators that do
23 want to bring in some sort of blend of RNG to
24 address Thomas's point. I think we want to
25 encourage that.

1 And then, you know, just in general, I
2 would say, you know, I understand, there's a
3 manufacturer up in Modesto that is probably going
4 to be converting their fleet over to natural gas.
5 I shouldn't say which one right now, but there is
6 still progress being made. But I think this
7 amount of money, I would say, is minimal. And
8 even though last year's solicitation was
9 disappointing, I think we could use this, use up
10 this money, at least \$2.5 million plus the left
11 over, I think it should perhaps even be a little
12 bit higher.

13 I think those are my main points.

14 And then, you know, maybe just
15 target particularly the San Joaquin Valley and
16 the South Coast, because those are the areas that
17 really need these ultra-low-NOx engines.

18 COMMITTEE MEMBER SCOTT: I'm getting head
19 shakes from the other folks in the room.

20 Let me turn to Justin to see if we
21 have -- no hand raisers on natural gas fueling
22 infrastructure from the public on the WebEx.

23 So what we'll do right now is go ahead
24 and take our break for lunch. It's 12:20. Let's
25 plan to come back and start again at 1:20.

1 (Off the record at 12:20 p.m.)

2 (On the record at 1:25 p.m.)

3 COMMITTEE MEMBER SCOTT: Hello everybody.
4 Welcome back. We're going to pick up with our
5 discussions on the funding allocations for the
6 Alternative and Renewable Fuel and Vehicle
7 Technology Programs Investment Plan. And where
8 we left off was on the natural gas vehicle
9 incentives.

10 Before, let me say, before we run down
11 that path, we have been joined in the room by
12 Bonnie Holmes-Generation from the American Lung
13 Association.

14 Welcome. Good afternoon.

15 COMMITTEE MEMBER HOLMES-GEN: Thank you.

16 COMMITTEE MEMBER SCOTT: And she has a
17 few comments from the morning that she didn't
18 make because she was driving in her car.

19 So why don't you start with those, and
20 then we'll turn to the --

21 COMMITTEE MEMBER HOLMES-GEN: All right.

22 COMMITTEE MEMBER SCOTT: -- natural gas
23 vehicle incentives.

24 COMMITTEE MEMBER HOLMES-GEN: Thank you
25 for the flexibility. I appreciate it.

1 COMMITTEE MEMBER SCOTT: Of course. And
2 then kind of project toward this --

3 COMMITTEE MEMBER HOLMES-GEN: Okay.
4 Project toward the phone.

5 COMMITTEE MEMBER SCOTT: -- so they can
6 hear you.

7 COMMITTEE MEMBER HOLMES-GEN: Okay.
8 Thanks so much for the chance to just kind of
9 jump in on a couple items. And I've even got a
10 nameplate.

11 On the -- just four items I wanted to
12 mention on -- and I think, by the way, I think
13 there's been some great discussion this morning.
14 It's been heartening just to hear the great
15 discussion and the views that have been
16 expressed.

17 On the biofuels, I just wanted to kind of
18 weigh in to say -- to underscore the issues that
19 were raised by Sekita. We were very involved in
20 SB 1383 bill discussions last year. And this
21 issue of, you know, the dairies and community
22 concerns about dairy projects were certainly a
23 big part of the discussion. So appreciating
24 those community concerns, I just did want to
25 underscore the need to make sure as the

1 Commission is reaching out and thinking about
2 projects, that we are taking a look to make sure
3 that any energy projects would be -- would have
4 the least possible impacts to air quality, water
5 quality, other environmental burdens in the
6 community. So I'm sure that's on your list, but
7 I just wanted to underscore that.

8 And, you know, it does seem that -- I
9 know you've mentioned 1383 here. But it does
10 seem like it's potentially important to have more
11 discussion around how does that Short-Lived
12 Climate Pollutant Plan effect the funding
13 strategies that we're pursuing here? And I'm
14 going to be thinking about that as we go through
15 the day. And I know you've been thinking about
16 it, of course, as you put this plan together.
17 But I think that's an important overlay that's
18 new this year that we all need to think about.

19 On the EV infrastructure and charging --

20 COMMITTEE MEMBER SCOTT: Can I -- let
21 me --

22 COMMITTEE MEMBER HOLMES-GEN: Yes.

23 COMMITTEE MEMBER SCOTT: -- just add one
24 thing --

25 COMMITTEE MEMBER HOLMES-GEN: Yeah.

1 Yeah.

2 COMMITTEE MEMBER SCOTT: -- on the 1383
3 which I should have mentioned this morning, and
4 that is that the Energy Commission, as part of
5 our Integrated Energy Policy Report --

6 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.

7 COMMITTEE MEMBER SCOTT: -- process has a
8 workshop, or potentially two, coming up where we
9 will bring in, just like we did with the IEPR --

10 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.

11 COMMITTEE MEMBER SCOTT: -- we'll bring
12 in experts from all around and really have a
13 chance to have kind of a --

14 COMMITTEE MEMBER HOLMES-GEN: Oh, great.

15 COMMITTEE MEMBER SCOTT: -- a deep dive,
16 a deep-dive conversation as part of one of the
17 IEPR workshops.

18 COMMITTEE MEMBER HOLMES-GEN: Okay.

19 COMMITTEE MEMBER SCOTT: That one does
20 not have a date yet. It will probably be in June
21 or July, so keep an out on our -- if you're not
22 on our IEPR LISTSERV, it might be worthwhile to
23 get on there, just so you get notification of
24 those workshops.

25 COMMITTEE MEMBER HOLMES-GEN: Yeah, I

1 think that would be really helpful. And maybe
2 you could possible make sure that the Advisory
3 Committee Members are apprised of that workshop,
4 if possible. I mean, this is obviously
5 important, both from a greenhouse gas perspective
6 and an air quality perspective because these, the
7 black carbon, methane and these issues that are
8 raised in 1383 are such -- so important to public
9 health and air quality improvement, so I'm glad
10 to hear that.

11 On the EV infrastructure and charging, I
12 wanted to jump in and underscore the need to do
13 everything possible to increase charging stations
14 in the valley context and in other underserved
15 areas and EJ areas. And I know this is a
16 consideration in the solicitations and the
17 grading and scoring of the proposal, so I
18 appreciate that. And I don't know if there's a
19 way to even heighten the focus, because there's
20 such a need.

21 I mean, we have the -- the State Air
22 Board has a great plan that they're taking a look
23 at now, both they have an investment plan and
24 they have their scoping plan. There's a lot of
25 focus on ramping up clean technologies and

1 environmental justice areas. And there's pilot
2 projects that are being pursued around car
3 sharing, EV buses. And, of course, the San
4 Joaquin Valley area has the worst air quality --
5 some of the worst air quality in the country,
6 competing with Los Angeles. And it's so
7 important to ramp up this infrastructure but we
8 need -- you know, it's always that chicken and
9 egg. You know, we have the technology and we
10 need the charging stations, and we clearly don't
11 have enough charging stations in the valley, and
12 people aren't aware of them and aren't seeing
13 them.

14 COMMITTEE MEMBER SCOTT: Uh-huh.

15 COMMITTEE MEMBER GOLDSTEIN: And so how
16 are we going to -- you know, how do we ramp these
17 both up together in this area. So I just wanted
18 to throw that out there.

19 You know, it's hard because we're, you
20 know, we're looking at these issues and all these
21 different, I don't want to say silos, but in some
22 ways they are, where we're looking at these
23 issues of ARB in the context of the scoping plan
24 and the GGRF monies, and then we're looking it at
25 the Energy Commission, the context of AFR --

1 whatever, ARFVTP Program. Janea's got it down.
2 She can say it in like ten seconds. But, you
3 know, we're looking at these issues in all these
4 different context, and it's always hard to figure
5 out, how do we look at the big picture and make
6 sure that in each of these context we're
7 supporting what's going in the other region.

8 COMMITTEE MEMBER SCOTT: Uh-huh.

9 COMMITTEE MEMBER HOLMES-GEN: So I am
10 just thinking about how do we make sure, for
11 example, that what we're doing with the Energy
12 Commission in terms of putting infrastructure out
13 there is really supporting and leveraging what's
14 going on in terms of the pilot projects and the
15 other efforts to reach out to the EJ community,
16 and the EFMP Program where we have, again --

17 COMMITTEE MEMBER SCOTT: Uh-huh.

18 COMMITTEE MEMBER GOLDSTEIN: -- more
19 funding out here to hopefully generate excitement
20 in second-round vehicles and new vehicles. But
21 it's amazing how much we can buy down the price
22 of these vehicles, and just trying to leverage
23 all these efforts.

24 And in that regard, I appreciated the
25 discussion about signage and visibility. When I

1 drove into the Air District, I saw an EV charging
2 sign, so I was happy to see that.

3 But, you know, I just -- the visibility
4 is so important. And I don't know what role this
5 program can play in that as we're putting these
6 contracts out. I just, I don't know, I'd be
7 interested to hear if we had shopping centers
8 with marquis that talked about charging. I have
9 seen some of those in San Diego. I mean, you
10 know, really bigger picture, stepping it up --

11 COMMITTEE MEMBER SCOTT: Uh-huh.

12 COMMITTEE MEMBER HOLMES-GEN: -- in terms
13 of visibility, I think it would make an impact.
14 And so I'd be interested to know, how do we tie
15 in the visibility piece? We're putting the
16 equipment in, we're putting the money in, putting
17 the investment in, and now we need to get the
18 credit, too, not just putting it in for those
19 that know about the technology, but for those
20 that don't know --

21 COMMITTEE MEMBER SCOTT: Uh-huh.

22 COMMITTEE MEMBER HOLMES-GEN: -- you
23 know, how do we make that connection.

24 And then I guess for now, I'll just close
25 by just saying, I appreciate the hydrogen

1 allocation. And, of course, the Lung Association
2 continues to support that. It was very
3 heartening to hear and read about the growth in
4 the stations over the last year. That's a
5 wonderful increase.

6 And just to bring it back to the scoping
7 plan, we have big, big goals in the scoping plan,
8 as you know, to ratchet up EV technology, both
9 across light-duty and heavy-duty and the
10 sustainable freight strategy, we have to make a
11 big jump. So I think we have to always keep
12 thinking about that in each of these funding
13 categories. And EV is an area where we need, I
14 think especially, more focus, and especially in
15 the heavy-duty sector. I know we're going to
16 talk about that more a little later, so I'll wait
17 for that discussion.

18 Thank you for the chance to comment.

19 COMMITTEE MEMBER SCOTT: Yes, of course.
20 Thank you very much.

21 Let me, speaking of any other Advisory
22 Committee Members who haven't yet had a chance to
23 introduce yourself, if we've had any other folks
24 join, like Howard Levenson or Clark Williams or
25 Anne McMonigle, Jananne Sharpless, Will Coleman,

1 please go ahead and say hello and introduce
2 yourself. Okay, hearing nothing, I have some of
3 them on this list as yeses and some as nos, but I
4 thought I'd check to see whether they were there.

5 Thank you very much, Bonnie, for those
6 comments.

7 Let us now turn to the natural gas
8 vehicle incentives and discussion amongst the
9 Advisory Committee Members about that proposed
10 funding allocation.

11 And I might start with folks on the WebEx
12 this time, and then rotate back into the room.
13 So if there are Advisory Committee Members on the
14 WebEx who would like to weigh in on the proposed
15 funding allocation for natural gas vehicle
16 incentives, please go ahead.

17 Are they back?

18 MR. REGNIER: Everybody should be.

19 COMMITTEE MEMBER SCOTT: Okay.

20 MR. REGNIER: Everybody should be.

21 COMMITTEE MEMBER SCOTT: It's not like
22 you all to be quiet.

23 COMMITTEE MEMBER HOLMES-GEN: I think
24 they're still having lunch.

25 COMMITTEE MEMBER SCOTT: They might.

1 Yes, they might.

2 MR. REGNIER: They might. They might,
3 yeah. They are present on the --

4 COMMITTEE MEMBER SCOTT: Okay.

5 MR. REGNIER: -- on the digital side.

6 COMMITTEE MEMBER SCOTT: Bonnie, do you
7 have any remarks on the natural gas?

8 COMMITTEE MEMBER HOLMES-GEN: Well, I'm
9 just wondering about the uptake of the funding.
10 I know that was discussed earlier in the other
11 natural gas category. And I'm wondering, how is
12 it going? I checked everything that was included
13 in here, but are we getting full uptake of these
14 funds?

15 MR. ORENBERG: This is Jacob Orenberg.
16 It's a little difficult to say what full uptake
17 would be. We do currently have -- I believe
18 around \$20 million has been put into the Natural
19 Gas Vehicle Incentive Project. And all of the
20 statistics are available on the Natural Gas
21 Vehicle Incentive Project website. It's managed
22 by the University of California, Irvine. And you
23 can just Google or search for NGVIP, and it will
24 be one of the first ones that shows up.

25 Now going off the top of my head, I seem

1 to recall that we've provided, I think \$11
2 million in incentives for vehicles right now.
3 And then we have another \$6 million-plus that was
4 on a wait list, and those are now eligible to
5 receive incentives, as well. And that leaves
6 about, I want to say, \$1.5 million or so that
7 last I checked is still available for any
8 interested party.

9 So we're going to be going through the
10 people on the wait list. I think they have up to
11 six months to purchase their vehicle and receive
12 the incentive. And if they don't purchase in the
13 time window, they would then have to -- they
14 would then lose their place in line and any
15 incentives, and it would be made available for
16 someone else. But because of the six-month time
17 window for the incentives, I guess that the one
18 reason why we haven't gone through the entire pot
19 of funding. We just have to work through the
20 reservation placeholders.

21 COMMITTEE MEMBER HOLMES-GEN: Uh-huh. So
22 you think there's uptake, but we just haven't
23 worked through the whole --

24 MR. ORENBERG: We're seeing --

25 COMMITTEE MEMBER HOLMES-GEN: -- list

1 yet, basically?

2 MR. ORENBERG: We're seeing definite
3 expressed interest in this. There's been quite a
4 lot of intake, and we're going through the wait
5 list to take up the rest of the incentive funds.

6 COMMITTEE MEMBER SCOTT: Joe and Bill, we
7 are at the natural gas vehicle incentives
8 proposed funding allocations. And so if there is
9 anything that you would like to say about that,
10 please let us know.

11 And if there are members on the phone,
12 hopefully you are coming back from lunch, as
13 well, we are interested in, of course, we're
14 interested in hearing from you on what you think
15 about this allocation. Okay.

16 Hearing --

17 COMMITTEE MEMBER HOLMES-GEN: I'm sorry.
18 Is this --

19 COMMITTEE MEMBER SCOTT: Oh, go ahead.

20 COMMITTEE MEMBER HOLMES-GEN: This is for
21 light and heavy -- I just to remind my -- this is
22 light- and heavy-duty for this category or this
23 is all heavy-duty?

24 MR. ORENBERG: This is for --

25 COMMITTEE MEMBER ROBERTSON: Medium- and

1 heavy-duty.

2 MR. ORENBERG: Yeah, medium- and heavy-
3 duty.

4 COMMITTEE MEMBER HOLMES-GEN: Medium- and
5 heavy-duty. Okay.

6 MR. ORENBERG: I believe light-duty
7 vehicles are also eligible for a \$1,000 incentive
8 under this category.

9 COMMITTEE MEMBER ALAFIA: There aren't
10 any.

11 COMMITTEE MEMBER ROBERTSON: There aren't
12 any.

13 COMMITTEE MEMBER HOLMES-GEN: All right.

14 COMMITTEE MEMBER ROBERTSON: They used
15 to, yes.

16 MR. REGNIER: So the folks in the room,
17 we've got a few comments online about
18 difficulties hearing folks.

19 COMMITTEE MEMBER SCOTT: Oh, okay.

20 MR. REGNIER: So if we could speak into
21 the bat phone and --

22 COMMITTEE MEMBER SCOTT: Lean forward and
23 project.

24 COMMITTEE MEMBER HOLMES-GEN: Okay. All
25 right.

1 MR. REGNIER: There we are.

2 COMMITTEE MEMBER HOLMES-GEN: All right.

3 COMMITTEE MEMBER SCOTT: Okay.

4 Hearing -- this is Janea Scott. Hearing no
5 comments, additional comments from the Advisory
6 Committee on natural gas vehicle incentives --

7 MR. REGNIER: Sekita --

8 COMMITTEE MEMBER SCOTT: Oh, I think
9 Sekita would like to weigh in.

10 MR. REGNIER: I believe so.

11 COMMITTEE MEMBER SCOTT: Sekita, if
12 you're there, please go ahead. Is she --

13 MR. REGNIER: Yeah. She's -- it appears
14 that she's muted on her end. I'm not sure.

15 COMMITTEE MEMBER SCOTT: Sekita, you're
16 un-muted on our end. We think you might be muted
17 on your end.

18 MR. REGNIER: Let me try a refresh.

19 COMMITTEE MEMBER SCOTT: He's going to --
20 we're going to refresh.

21 (Colloquy)

22 MR. REGNIER: Okay. There you are.

23 COMMITTEE MEMBER SCOTT: Okay.

24 MR. REGNIER: Sekita, you should be able
25 to speak now.

1 COMMITTEE MEMBER GRANT: Hi.

2 MR. REGNIER: There you go. Okay.

3 COMMITTEE MEMBER SCOTT: There you go.

4 COMMITTEE MEMBER GRANT: Okay.

5 COMMITTEE MEMBER SCOTT: We can hear you.

6 COMMITTEE MEMBER GRANT: Cool. Yeah.

7 Thank you for your patience with that.

8 MR. REGNIER: Sorry about that.

9 COMMITTEE MEMBER GRANT: I'm wondering if
10 it's possible with both the natural gas fueling
11 infrastructure, as well as the vehicle
12 incentives, I just -- you know, this is an area
13 that gives me a little bit of heartburn. And so
14 I'm trying to -- I would like to see some type
15 of -- like what is our plan with natural gas? I
16 got a little extra heartburn hearing about, you
17 know, the possibility of focusing this in our
18 schools. And really, we -- you know, I think the
19 EJ community and Greenlining (indiscernible),
20 we're really looking to have disadvantaged
21 communities and like really have communities
22 showcase the future and not -- because the
23 infrastructure for this, you know, becomes legacy
24 infrastructure and it lasts a long time. And so
25 especially for those communities that have been

1 over-polluted for so long, how do we start with a
2 technology that's lifecycle is what we want for
3 our world in the future?

4 And so in terms of how the state is
5 incentivizing natural gas, the fuel, the
6 vehicles, the infrastructure, how are we --
7 what -- I mean, honestly, what's their exit
8 strategy for it? I know that it still plays an
9 important role in medium- and heavy-duty. But
10 we're seeing, you know, the electrification of
11 the freight sector is, I think moving quickly,
12 you know, faster than folks maybe imagined. And
13 so, you know, maybe hearing from Staff a little
14 bit, I'm sure stakeholders have some commentary
15 on that, but wanting to hear, you know, how long
16 this goes -- how long this natural gas thing
17 goes.

18 COMMITTEE MEMBER SCOTT: This is Janea
19 Scott. Let me start with -- on the
20 infrastructure side, one of the reasons that we
21 think that it makes sense to continue to make the
22 investment in natural gas infrastructure is
23 actually from things that we have heard from
24 school districts around the state, and that is
25 that, you know, 10 or 15, or maybe in some cases

1 even 20 years ago, they started pioneering the
2 natural gas school buses. And they have
3 infrastructure for those that's old and requires
4 upgrading for them to be able to continue to use
5 the natural gas school buses. They don't have
6 money for an electric bus at this point in time.

7 And so what would happen if we couldn't
8 upgrade that infrastructure is that they would
9 have to pull their older diesel bus off the
10 parking lot and run that instead. So we found
11 that to be pretty compelling in terms of keeping
12 a little bit of money in infrastructure of
13 natural gas.

14 I agree with you that we need to think
15 about how we make that transition to the zero-
16 emission vehicles for our school districts. And,
17 you know, I don't know if that's waiting for the
18 bus prices to come down, or I won't -- that's
19 something that we should discuss in more detail.

20 And then I think about the incentives
21 that we have, one of the things that we're really
22 trying hard to do is in the area where those low-
23 NOx Cummins engines are available, that's what we
24 want to see. And as the larger low-NOx engines
25 come in, that's what we want to see. That's

1 where we want these dollars to go. And it would
2 be even better if they're centrally-fueled fleets
3 that are using renewable natural gas. And in a
4 lot of instances we're kind of hitting a niche
5 where there's not an electric or fuel -- not a
6 plug-in or fuel cell vehicle ready right now.

7 And so we're -- so some of it's kind of
8 that push and pull between, just like you said,
9 these investments that may last 10 or 15 years,
10 but it's space where you can clean up an engine
11 today. And that matters a lot, as you know, in
12 South Coast and San Joaquin Valley, versus
13 waiting a few more years for the zero-emission
14 technology. And so that's the balance we're
15 trying to strike here. And maybe we need to look
16 at the text within our report to make sure that
17 that comes through.

18 And then let me let Jacob or John weigh
19 in, in a little bit more detail, if you like.

20 MR. ORENBERG: Well, just to piggyback on
21 what Commissioner Scott just said, when you do
22 combine a low-NOx engine with renewable natural
23 gas, your lifecycle emissions, not the tailpipe
24 emissions but the lifecycle emissions are about
25 on par with that of a comparable zero-emission

1 vehicle, so that is where we want to go. Now, of
2 course, it is still producing some tailpipe
3 emissions. But it is significantly less than
4 even the cleanest diesel engines on the road
5 right now, and orders a magnitude cleaner than
6 the older diesel buses that a lot of these school
7 districts are still using that we keep
8 referencing.

9 So we do see this still a positive thing
10 to invest in and, you know, a valuable asset when
11 we're trying to convert the entire state fleet to
12 cleaner, more renewable lower-carbon
13 technologies.

14 MR. KATO: And not to be redundant, but
15 again, the initial focus of these types of
16 technologies is the immediate direct benefit of
17 the localized impacts of diesel PM. And this is
18 actually kind of a larger scale vision for a
19 zero-emission transportation landscape in 22050.
20 There is a pathway kind of outlined in general of
21 where there will be a transition from these
22 technologies to more of the zero ones. And right
23 now this is, I think, still the transition
24 period. And there's still, I think a need,
25 immediate need, and this does still play a role

1 in various locations throughout the state.

2 But in the long run, you know, you're
3 right, there will be a transition point at some
4 point. And Staff will work with ARB to help
5 synergize those transition points as we continue
6 to hone in the finite strategies of spending and
7 getting those emission reductions.

8 COMMITTEE MEMBER GRANT: Okay. Thank
9 you.

10 COMMITTEE MEMBER SCOTT: So that may not
11 alleviate all of your concerns, but we are trying
12 to be thoughtful --

13 COMMITTEE MEMBER GRANT: Yeah.

14 COMMITTEE MEMBER SCOTT: -- in this
15 space.

16 COMMITTEE MEMBER GRANT: That's helpful.
17 And I'm not sure who was just speaking last.
18 But, you know, to the extent you're working with
19 ARB to identify those transition points and kind
20 of -- because, you know, we -- there's been, for
21 a while, talk about transition and then long term
22 is this. But actually putting -- maybe getting a
23 better idea of what are the years, what is the
24 target, you know, when does that transition
25 start, I think this provocation (phonetic) has

1 gone on for a while where we're talking in
2 somewhat vague terms and (indiscernible) in terms
3 of when that happens. And so it would be great
4 to get, you know, from the experts, from you all,
5 when you think -- you know, even if it's a range
6 of, you know, when that transition will happen,
7 and with the understanding that, you know,
8 there's a lot of uncertainties so it might not
9 be, you know, for best to accurately predict.
10 And technology is (indiscernible) so quickly.
11 But some times of, you know, more detail around
12 that I think would be helpful.

13 But thank you.

14 COMMITTEE MEMBER ROBERTSON: This is Bill
15 Robertson with the Air Resources Board.

16 Just to speak to that a little bit, part
17 of the way we're looking at it is, you know, what
18 technologies are available right now to be
19 deployed. And, you know, the low-NOx engines,
20 and we sort of look at low NOx in a fuel Agnostic
21 way, but right now the only available one is
22 natural gas, you know, we see that as very
23 important to meeting our SIP commitments, and so
24 we need to see these vehicles get out there.

25 We're also looking at the zero. And, you

1 know, our formal position is zero-emission
2 everywhere, near zero everywhere else. And the
3 longer-range applications and in the heavy-duty
4 sector is -- there aren't clear products right
5 now that can, you know, take a load to Vegas, and
6 that are commercially available.

7 So when you talk about, you know, when do
8 these transition points happen and whatnot, part
9 of that is technological maturation in the
10 marketplace, and we're -- you know, that's where
11 we want to go. I agree with everything I heard
12 you say, that, you know, we want to see these
13 very low emissions. And, you know, as soon as
14 the products are available, we're going to
15 continue encouraging them. We have complimentary
16 programs to the good work the CEC is doing, as
17 well.

18 So thank you.

19 COMMITTEE MEMBER HOLMES-GEN: Yeah.
20 Well, first I want to ask a question. I have a
21 lot of thoughts about this. And I think,
22 actually, that this could use probably some more
23 discussion, maybe than we have time for.

24 But I just wanted to ask -- I'm sorry,
25 whoever the staff was that was talking --

1 COMMITTEE MEMBER SCOTT: That's Jacob.

2 COMMITTEE MEMBER HOLMES-GEN: Jacob,
3 right. Thank you, Jacob. You said something
4 about the natural gas engine emissions being
5 equivalent to zero emission. And I just -- could
6 you say what you were saying there again?

7 MR. ORENBERG: Sure. So when you combine
8 a low-NOx natural gas engine with a biomethane
9 fuel the lifecycle emissions can be on par with
10 those of an equivalent zero-emission vehicle.

11 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.
12 And I guess, number one, I would just say, how
13 many of these engines are using the biomethane
14 fuel today?

15 MR. ORENBERG: I don't have data on that.
16 You know, biomethane fuel, typically you need
17 to -- it's typically not injected into the
18 pipelines. Still there are some entities in the
19 state that are going forward with that. But you
20 typically need to refuel with biomethane at the
21 very location where it is actually produced, so
22 that's somewhat limiting right now.

23 COMMITTEE MEMBER HOLMES-GEN: Well, I
24 just -- you know, I guess I'm -- I think it's
25 important to talk about, if we're going to make

1 comparisons, to kind of be careful to talk about,
2 okay, what fuels are being used today as we make
3 these comparisons, and then --

4 MR. ORENBERG: Yeah.

5 COMMITTEE MEMBER HOLMES-GEN: -- what
6 might be used in the future and look at both.
7 And, you know, I don't think that there's -- I
8 don't know what the statistics are. I'm sure
9 others will fill in the numbers. But I don't
10 think there's as much biomethane being used today
11 as -- you know, to be able to say that these
12 vehicles are operating on essentially zero
13 emissions.

14 I think that I guess my overall point
15 here is that I think that there does need to be a
16 shift in focus in this plan. And I think, again,
17 it kind of goes to my earlier point of we need to
18 match up what we're doing here with the other
19 processes that are going on, with the scoping
20 plan and the Short-Lived Climate Pollutant Plan
21 and the sustainable freight strategy, and making
22 sure that this ARFVTP, you know, that this is,
23 you know, this is an arm of accomplishing all
24 these other priorities that the state is setting.
25 And I know that's what we intend it to be.

1 But, you know, to get to our 40 percent
2 GHG reduction by 2030, you know, we're looking
3 at, again, a huge increase in electric
4 technology, light- and heavy-duty. And the
5 sustainable freight strategy is talking about,
6 you know, 100,000 or more electric trucks and
7 buses. We think the number should be higher than
8 that.

9 And I think when we're talking about the
10 transition point, I think the transition point,
11 it should be now or as close to now. I mean, to
12 get to these huge numbers of electric vehicles
13 we're going to need on the road, both in light-
14 duty and heavy-duty, we need to get to that
15 transition point, and that's where we're getting
16 back to this plan and these funds, these public
17 funds that are geared toward, you know, pushing
18 emerging technologies forward.

19 So this is an area in heavy-duty where we
20 really need to push the technology forward for
21 both -- you know, for the GHG, for the air
22 quality or smog and soot reduction, for energy
23 sustainability. I mean, for all of these
24 reasons, we need to really push the envelope.

25 And so I'm concerned that there's not

1 enough funding for the other advanced
2 technologies, you know, for electric and fuel
3 cell, basically, for those long-term sustainable
4 technologies and really moving the needle and
5 pushing us forward so that we don't say, well,
6 it's just going to take us too long to get there
7 so we need to put money in transitional
8 technologies, but that we're moving the needle
9 now so that we're getting -- moving much faster
10 to that zero-emission future that we absolutely
11 have to have to get to our 2030 and 2050 goals.

12 So I'm happy to chat more about those
13 thoughts. But I do think there's a little shift
14 that's needed here in the way this area is
15 framed.

16 Thank you for the time.

17 COMMITTEE MEMBER SCOTT: Of course.

18 Other comments from the Advisory
19 Committee Members?

20 COMMITTEE MEMBER LAWSON: Yeah. Hi.
21 Good afternoon. This is Thomas Lawson with the
22 California Natural Gas Vehicle Coalition. I have
23 two points.

24 One, for the information that was
25 referenced about lifecycle and a heavy-duty

1 natural gas engine running on renewable natural
2 gas being zero equivalent, there is data and
3 there has been a report that shows that, so we
4 can circle that to the Advisory Committee.

5 I think what we -- you know, my problem
6 with the conversation, there seems to be a
7 disconnect between what folks want and what is
8 available. I mean, I think that if there's
9 nothing stopping a company, like BYB or any of
10 the other folks, from developing a Class 8 all-
11 electric vehicle. And when they do, I think we
12 can have a different conversation about where
13 money goes. But as we're talking about today,
14 we're talking about next year, we're talking
15 about the following year, the only folks that
16 are, you know, that are available right now is
17 this near-zero natural gas engine. And I don't
18 see a negative in trying to get something cleaner
19 than diesel on the road.

20 I think everybody that's part of this
21 group is here for alternative-fuel vehicles,
22 which means we should all be working together to
23 clean up and get off the road as many vehicles,
24 cars, trucks, buses as we can off the road. And
25 think this desire to want to just flip a light

1 switch, it doesn't match reality and what's
2 available from a technological standpoint.

3 So I just wanted to put that on the table
4 that if we were having a conversation and we're
5 comparing apples to apples, and we're saying that
6 there is Truck A available, Truck B available
7 today, and where should money go, then let's have
8 that conversation. I think the problem that is
9 clear right now is that there is no Truck B yet.
10 And so when we get there, then let's have a
11 different discussion. But there should be no
12 concerns about getting something cleaner on the
13 road than what's currently there.

14 And communities that are in these areas
15 that are, you know, breathing and living in these
16 dirty current options, they should be able to get
17 cleaner air tomorrow. And any reduction, you
18 know, that we can give them is a win and should
19 be a win for everybody.

20 So I just wanted to put that on the table
21 as to kind of the conversation, I think, of where
22 we're going. And, you know, I'm happy to have
23 some one-on-one conversations if folks want
24 information. But again, you know, we'll get that
25 data to the group. But I just wanted to put that

1 on the table.

2 Thanks.

3 COMMITTEE MEMBER SCOTT: Other comments
4 from the Advisory Committee?

5 COMMITTEE MEMBER HOLMES-GEN: Yeah. This
6 is Bonnie again.

7 And I would just say, you know, it's not
8 about canceling out a near-term option, it's just
9 about looking at the purpose of this fund and
10 thinking about are we putting enough money into
11 the transition, which could be sooner? I mean,
12 this money can help push that transition point
13 sooner. And are we doing enough to make that
14 happen? Because we know that we are going to get
15 the cleanest air when we can move to, again, the
16 long-term clean air solution. And we want to
17 push that transition point as -- you know, make
18 it as soon as possible. When we're moving ports
19 and trucks, you know, a freight truck to zero
20 emission, that's a big focus of the ARB's
21 sustainable freight strategy.

22 So that's kind of my point. I mean,
23 there's a lot of funding, little pots out there.
24 This is one of them. There's clearly pots that
25 are providing -- you know, this is a pot that has

1 provided funding for near term, and we've always
2 said that that's a piece of this. But I just want
3 to step back and look at the big picture, too,
4 and, you know, think about if this program is
5 doing enough to move us forward.

6 So I kind of -- you know, I moved over
7 into the next section, I think, but --

8 COMMITTEE MEMBER SCOTT: Okay.

9 COMMITTEE MEMBER HOLMES-GEN: -- it's
10 hard to peel on the part and just look at them as
11 one little group.

12 COMMITTEE MEMBER SCOTT: It is because it
13 does all roll back up into an overall strategy.

14 Other comments from Advisory Committee
15 Members on the natural gas vehicle incentives
16 allocation?

17 COMMITTEE MEMBER KNIGHT: Yeah. This is
18 Ralph Knight. Do you hear me?

19 COMMITTEE MEMBER SCOTT: Yes.

20 COMMITTEE MEMBER KNIGHT: I just wanted
21 to lay a little information out there as far as
22 the yellow bus world is concerned. You know, a
23 lot of districts in the state went into natural
24 gas very wholeheartedly. Lots of them built
25 their own stations. There was some that got

1 grant money for them. But, you know, we just
2 completed the first rounds of buses with tank
3 replaces. School buses in the state of
4 California state here forever because districts
5 can't afford to buy buses. So, you know, all of
6 the tank replacements have gone on. Now there's
7 20-year tanks in those buses, so those buses
8 still have a few years around.

9 I know that, you know, electrified buses
10 are coming up. There's kind of a small choice of
11 what districts can do out there right now. It's
12 growing. I think it's going to expand in leaps
13 and bounds as far as the yellow bus is concerned.
14 But I think we're still a little ways away from
15 that.

16 So I guess, you know, that's my only
17 concerns and cautions, is that you've got a lot
18 of natural gas buses in the state of California
19 running out there, that somehow the districts are
20 going to have keep them up and keep them going.
21 You know, I've got quite a handful of them that's
22 got over half-a-million miles on them, you know?
23 So, I mean, the engines are better than the
24 diesels were over those time spans as far as
25 lasting and the running capabilities of it. So

1 we're, you know, we're enjoying all of those type
2 of things in the yellow bus world that's out
3 there.

4 So just kind of a note of where districts
5 are at as far as natural gas.

6 COMMITTEE MEMBER SCOTT: Thank you.

7 Other Advisory Committee Members? Okay.

8 Let me turn to public comment in the
9 room.

10 MR. BOESEL: John Boesel with CALSTART.

11 Some really good discussion, Bonnie. I
12 think you're throwing out a challenge that's
13 really good. And that big picture thinking just
14 really should be out there, so I really applaud
15 you for doing that.

16 I think I haven't seen exactly how this
17 program is structured. But if it's not, I would
18 encourage the Energy Commission to provide
19 incentives for fleets that are using these funds
20 to buy the vehicles, to maybe get more dollars if
21 they can guarantee that the trucks are going to
22 run on renewable methane, some percentage of
23 renewable methane. And maybe the incentive could
24 even go up based on the percentage of renewable
25 methane.

1 If you do have a near-zero truck, you
2 know, from 90 percent lower NOx emissions than
3 diesel running on 100 percent renewable natural
4 gas, that is, you know, from a criteria
5 perspective, you're almost as good as a zero.
6 And from a climate perspective, you are actually
7 better than the grid. So let's not -- we ought
8 not to dismiss that. And we ought to be using,
9 like the Swedes are, as much, you know, of our
10 renewable methane, you know, as we can, and
11 there's a lot out there that we really should be
12 pursuing.

13 So I just, you know, did want to just
14 share those observations and just say that we
15 are -- yesterday there was a workshop with ARB
16 that we helped prepare for, kind of a three-year
17 investment plan for the medium- and heavy-duty
18 vehicle sector. And there is under HVIP now
19 funding for near-zero emission natural gas
20 engines. So it doesn't pay for basically the
21 cost of going from diesel to natural gas, it pays
22 from going from natural gas to near-zero natural
23 gas. And that funding is available from HVIP.

24 So it would be nice to make sure that
25 there was good coordination among the different

1 funding sources from the different state
2 agencies, and perhaps information on the
3 websites, you know, telling the applicants about
4 the different funding sources and how to do it.

5 MR. ORENBERG: Thank you.

6 COMMITTEE MEMBER SCOTT: Thank you.

7 Anyone else in our -- in the room? Okay.
8 I'm seeing shaking heads.

9 Let me turn to Justin. I'm seeing
10 another shaking head, that there is no one on the
11 WebEx with their hand raised, no one from the
12 public with their hand raised on comment here.
13 Okay.

14 So we will now turn to advanced freight
15 and fleet technologies and the proposed funding
16 allocation for that. Let's start with our
17 Advisory Committee Members here at the table.

18 COMMITTEE MEMBER HOLMES-GEN: Well, this
19 is Bonnie.

20 And I would, of course, want to support
21 this category and say that I think we can use
22 more funding in this category. And I'm just --
23 I'd be interested to know a little more about how
24 are we -- I mean, what -- how much of this
25 funding is going to electric? This is all going

1 to -- this is going to a mix of technologies.
2 How much of it is going to zero and near -- to
3 zero emissions, fuel cell and electric types of
4 projects, battery-electric projects?

5 MR. ORENBERG: This is Jacob Orenberg.
6 So that isn't actually defined in the Investment
7 Plan. That's left up to --

8 COMMITTEE MEMBER HOLMES-GEN: Okay.

9 MR. ORENBERG: -- the development of each
10 individual solicitation regarding which specific
11 fuel and technology types are eligible.

12 MR. KATO: But we do -- this is John
13 Kato.

14 But we do want -- but we do make it
15 flexible and comparable to, like for example, the
16 Port of L.A. and Long Beach and some of the ports
17 to make sure that these are compatible and
18 supportive to helping them attain their
19 objectives toward zero-emission technologies in
20 their arena --

21 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.

22 MR. KATO: -- and making sure that their
23 plans and actions definitely help the local
24 communities reap those same benefits, as well as
25 the port benefits.

1 And so that's why it's not necessarily
2 specifically stated, but it is -- it allows us to
3 be more customized, those strategies or
4 solicitations to help meet those specific
5 strategic needs, if that makes sense.

6 COMMITTEE MEMBER HOLMES-GEN: Okay. So
7 you're providing -- it's based on the interests
8 expressed by the applicant, basically --

9 MR. ORENBERG: Right.

10 COMMITTEE MEMBER HOLMES-GEN: -- and the
11 local plans?

12 And my comment would be I just, as we're
13 designing this, I just think we need to be very
14 connected up to the sustainable freight strategy
15 and the goals in there. It's -- you know, it is
16 a big lift to get these -- in this sector to get
17 to the truly zero emission. And I think that is
18 a key role that these funds can play to help push
19 that forward. And I'm just interested in
20 anything we can do with this funding to help move
21 that faster.

22 And I think, you know, what John Boesel
23 talked about in terms of going from conventional
24 natural gas to the biomethane, that a piece of
25 this, and I appreciate that. But moving to the

1 truly zero emission battery-electric and fuel
2 cell is also a huge piece. And I don't know, I'm
3 curious if you have other ideas as to how we can
4 really, you know, push that piece of this
5 program, especially at the ports that do have --
6 the Ports of L.A. and Long Beach that do have a
7 strategy to get to those zero-emission
8 technologies?

9 COMMITTEE MEMBER SCOTT: We are -- this
10 is Janea Scott.

11 We have been working closely with the
12 ports. The Energy Commission has a collaborative
13 with the ports, so we're working with, let me
14 start down south, Port of San Diego, Port of Long
15 Beach, Port of L.A., Port of Hueneme, Port of
16 Stockton, and the Port of Oakland. We have
17 talked with them about energy-related projects
18 that are of mutual interest and how we can help
19 each other to demonstrate those. And so we have
20 done an initial -- and some of that is related to
21 transportation and some of it's related to
22 microgrids, lighting, other energy-efficiency
23 types of measures.

24 On the transportation side, we have
25 awarded two grants, one to the Port of San Diego

1 tenants, and one to the Port of Los Angeles.
2 Those are the two; right? Yeah. And so we can
3 get you some more details on what they're doing
4 there. Some of the work that -- actually, the
5 work is really exciting in both areas.

6 The work that San Diego Port Tenants
7 Association is doing, what I think is
8 particularly exciting is there are lot and lots
9 of tenants at the Port of San Diego, as you might
10 imagine. It's a huge port. It's got hotels and
11 all kinds of other things associated with it. So
12 it's a small handful of people who are
13 demonstrating the various, and there's zero and
14 near-zero, technologies. But they're letting the
15 other port tenants come over and ride and drive
16 it, test it out, take it to their part of the
17 port and see how it works for them.

18 And for me, that's exciting. That's an
19 additional leveraging that we have so that we --
20 with our limited dollars, we can't afford all of
21 the equipment. But to kind of get the ride --
22 it's like a ride-and-drive model, but with the
23 port equipment that the ports are sharing with
24 one another.

25 So we are engaged pretty directly with

1 the ports, trying to figure out what are things
2 that the Energy Commission and the ports can do
3 to advance just this initiative that you are
4 talking about. So I wanted to make sure that you
5 all knew about that. We can get you more details
6 about any of those projects.

7 And again, as Jacob mentioned, as we
8 design the solicitations, a lot of times what we
9 do is we're listening to, as you guys know, we're
10 listening to the experts in the area, in the
11 field, what can help solve a barrier that
12 everyone is facing. And if we can kind of put
13 some money towards eliminating that, that helps
14 everyone. What is something that would really
15 push this technology or the market forward, and
16 can we invest in that? Because we're always
17 looking for how best to strategically invest
18 these dollars so that they go as far as they can
19 when we make the awards.

20 And we do a lot of that thinking, what's
21 the latest and greatest information, when we do
22 those pre-solicitation workshops, to make sure
23 we're kind of -- which is one cool thing, I
24 think, about the flexibility of this program, it
25 gives us the ability to, okay, what's going on

1 today, what do we need to address, and let's put
2 some money towards addressing it. So we do -- we
3 are mindful of that as we go forward.

4 So I don't know if that's a specific
5 answer to your question.

6 COMMITTEE MEMBER HOLMES-GEN: That's
7 great. Thank you.

8 COMMITTEE MEMBER SCOTT: Other Advisory
9 Committee comments on the advanced freight and
10 fleet technologies proposed funding allocation?

11 COMMITTEE MEMBER TUTT: Yeah. This is
12 Eileen Tutt with Cal ETC.

13 The other thing -- because I actually do
14 support what Bonnie is saying. I think we
15 have -- there's a lot of opportunities for zero-
16 emission vehicle technologies in the freight
17 sector. I think we shared our transportation
18 electrification study with you all.

19 But now we have sort of a new advancement
20 in that the utilities have submitted literally 21
21 applications to the PUC, and they're largely
22 focusing on funding the infrastructure to service
23 this electrification which, I think as was
24 pointed out earlier, is sometimes the
25 construction costs. The make-ready costs, if you

1 will, for these big projects is quite high. So
2 having the utility leverage this investment is
3 really important.

4 So just like you're kind of
5 coordinating -- well, you are, not kind of, you
6 are coordinating with VW and with the utilities
7 and with other funders in the light-duty space, I
8 would encourage you to look at the heavy-duty
9 space, too. And I'll definitely let the
10 utilities know that, and the locals know that,
11 that we -- probably, as the applications come in,
12 it's probably good to leverage that funding so
13 that it, you know, can be -- can go a little
14 farther than it is without this money.

15 So I think there's real opportunities
16 today that perhaps didn't exist in previous plans
17 for this particular pot of money for zero-
18 emission vehicles.

19 COMMITTEE MEMBER SCOTT: Other Advisory
20 Committee Members?

21 COMMITTEE MEMBER ROBERTSON: This is Bill
22 Robertson --

23 COMMITTEE MEMBER SCOTT: Yes. Go ahead.

24 COMMITTEE MEMBER ROBERTSON: -- with the
25 Air Resources Board.

1 I just wanted to -- yeah.

2 COMMITTEE MEMBER SCOTT: Project towards
3 the phone.

4 COMMITTEE MEMBER ROBERTSON: I just
5 wanted to comment that we're happy to see
6 activity from the CEC in this area, and that we
7 appreciate the close interaction between our
8 incentive and demonstration staff and the CEC
9 staff to make sure that our efforts are
10 complimentary and not overlapping, and I think
11 there's a good process in place there. I
12 appreciate the cooperativity (phonetic).

13 COMMITTEE MEMBER SCOTT: Yeah. Thank
14 you. We appreciate that also.

15 Other Advisory Committee Members comments
16 on this allocation -- on this proposed
17 allocation?

18 MR. ECKERLE: Yeah. This is Tyson.

19 COMMITTEE MEMBER LAWSON: Hi. This is
20 Tom.

21 COMMITTEE MEMBER SCOTT: Tyson, go ahead.

22 MR. ECKERLE: Go ahead, Tom.

23 COMMITTEE MEMBER SCOTT: Oh.

24 MR. ECKERLE: Okay. Just quickly, from
25 the GoBiz perspective, especially on the

1 sustainable freight, I think we're getting a lot
2 of pressure and inquiries from industry. And,
3 you know, they're looking for solutions. So I
4 think this section is absolutely critical to that
5 effort, so thank you for dedicating funding
6 towards it.

7 COMMITTEE MEMBER SCOTT: Thomas, go
8 ahead.

9 COMMITTEE MEMBER LAWSON: I just wanted
10 to underscore, I think, the importance of what
11 you guys are doing in partnership with the ports.
12 You know, we talked a little bit earlier about
13 the Clean Air Action Plan. That's probably going
14 to be another ten-year document. The first Clean
15 Air Action Plan was adopted in 2006-2007. And so
16 that document really helped drive, I think, OEMs
17 and manufacturers to produce, you know, advanced
18 technologies.

19 So I think working with the ports on this
20 is very important. Because I think that, you
21 know, when we talk -- when we look at where our
22 nonattainment areas are, the ports are right in
23 the middle of all of that, so I think it's great
24 work. And however we can continue to support CEC
25 in that, we're happy to help.

1 COMMITTEE MEMBER SCOTT: Thank you.

2 Other -- go ahead, Bonnie.

3 COMMITTEE MEMBER HOLMES-GEN: Well, I
4 guess just one more comment, is that I think that
5 this should -- this section should reflect the
6 freight strategy's goal, which I think is 100,000
7 zero-emission, is it? Is that the number?

8 MR. KATO: 100,000.

9 COMMITTEE MEMBER HOLMES-GEN: Okay. The
10 ARB freight strategy's goal of putting -- and
11 again, we would advocate for it being higher, but
12 currently is 100,000 zero-emission trucks, buses,
13 but freight.

14 COMMITTEE MEMBER ROBERTSON: But it's not
15 a cap, you know?

16 COMMITTEE MEMBER HOLMES-GEN: No, it's
17 not a cap but --

18 COMMITTEE MEMBER ROBERTSON: It's just --

19 COMMITTEE MEMBER HOLMES-GEN: Yeah. No,
20 it's a minimum, clearly, it's a minimum. But,
21 you know, right, it's or more, of course. But
22 just that, you know, that should be reflected in
23 here, and just as we're talking about, you know,
24 it's helpful to have, you know, a measuring stick
25 in each of these sections while we're talking

1 about where we are trying to get and how are
2 these funds helping us to get there. And I think
3 it would be helpful to reflect, you know, how far
4 are we toward this goal, and how are these funds
5 helping us to get there? So --

6 COMMITTEE MEMBER SCOTT: Sure.

7 COMMITTEE MEMBER HOLMES-GEN: -- let's
8 think about that.

9 COMMITTEE MEMBER SCOTT: That's an easy
10 fix. We can make that addition --

11 COMMITTEE MEMBER HOLMES-GEN: Okay.

12 COMMITTEE MEMBER SCOTT: -- to the
13 report.

14 Any other -- and please feel free to
15 speak up. You don't have to wait for me to call
16 on you if you'd like to make a comment on this,
17 Advisory Committee Members. But any other
18 Advisory Committee Member comments? Okay.

19 Let me now turn to public comment on the
20 advanced freight and fleet technologies.

21 MR. REGNIER: We do have a comment from
22 Mr. Vergara.

23 COMMITTEE MEMBER SCOTT: Oh, we have one
24 in the room. Let me start with the folks in the
25 room --

1 MR. REGNIER: Oh, okay.

2 COMMITTEE MEMBER SCOTT: -- which I think
3 will be John, and maybe Dante or Brenda. Oh, you
4 guys are good? Okay.

5 MR. BOESEL: John Boesel with CALSTART.

6 I concur that this is, in general, an
7 area really worthy of investment. And I think
8 Thomas made a good point about, you know, we want
9 to have these zero-emission trucks, you know,
10 today, but we have to be realistic about where
11 the technology is. And it's going to take some
12 time and continued investment to invest in it.
13 And there are some segments where, particularly
14 like here in the valley, you've got some really
15 long truck routes. They're going to be some of
16 the toughest ones to convert to all-electric
17 right away.

18 Having said that, you know, the one thing
19 that the Energy Commission has done last year and
20 this year, or is suggesting in this plan, is to
21 really focus these dollars just on the port truck
22 applications, and also on the goods movement.
23 Now we are working with the ARB and others to
24 kind of look at the entire sort of heavy-duty
25 sector. And there are a lot of segments and some

1 of them have some more near-term promise to go
2 zero than others.

3 And so I would just say that you are kind
4 of restricting yourselves a bit by just saying
5 we're going to just focus on port-related
6 equipment. It certainly doesn't do a lot for the
7 folks out here in the San Joaquin Valley, which
8 is worth noting.

9 And then, you know, there are some of
10 these other beachhead markets could use this kind
11 of investment, first- and last-mile delivery
12 trucks. Some of the yard tractors, I mean, that
13 is technology that's being developed at ports but
14 could be used in distribution centers here in the
15 valley. So you may -- even if you kept it to
16 this, you may just want to add distribution
17 centers to your definition of a port so that then
18 folks here in the valley could also take
19 advantage of it.

20 But I realize there are only so many
21 dollars at the end of the day. You want to be
22 focused, but at the same time there are a lot of
23 different seeds we want to plant.

24 COMMITTEE MEMBER SCOTT: And I think
25 that's a really helpful point. And we will work

1 on that as we're designing the various
2 solicitations. We did want to get, as best we
3 could, out ahead and aligned with the Governor's
4 Sustainable Freight Plan, so that's why we took
5 that one set of medium-duty and heavy-duty and
6 aimed it right at the ports. But we do fully
7 recognize that there is a lot of need in the
8 medium-duty and heavy-duty space for these types
9 of dollars. And, yeah, it's just a balance and a
10 juggle, and we'll keep doing that.

11 We have Brenda making her way to the
12 microphone.

13 MS. TURNER: Yeah. I just wanted to echo
14 what --

15 COMMITTEE MEMBER SCOTT: Can you say your
16 name again for WebEx?

17 MS. TURNER: Yes. Brenda Turner from
18 Project Clean Air, San Joaquin Valley Clean
19 Cities Coalition.

20 COMMITTEE MEMBER SCOTT: I just wanted to
21 echo the importance of maybe extending that to
22 the distribution centers. IKEA, at the Tejon
23 Ranch Distribution Center, has used -- they got
24 funding from the Air District for an electric
25 yard tractor. They have expanded that to use it

1 at all three shifts. Rather than using a diesel
2 vehicle that gets two to three miles a gallon
3 that pulls around the containers, you know, full
4 of furniture and things, they're able to use that
5 vehicle. It's been extremely popular. They
6 purchased a second.

7 You know, if you get funding for me, I
8 can Frito-Lay some. Some of our farming
9 operations want some. UPS. I mean, there's a
10 lot of need for that type of vehicle.

11 And IKEA was so great. I was there while
12 they had a big ceremony for their employees.
13 They had ice cream. They told about the
14 emissions reductions that the vehicle would
15 bring. And it's, you know, been a phenomenal
16 thing that they were able to get the whole
17 community of workers involved in. So that was a
18 great project, and hopefully that vehicle could
19 be used. I know it's going to be used in some of
20 the ports, but the distribution centers would be
21 great.

22 Thank you.

23 COMMITTEE MEMBER SCOTT: Thank you.

24 And anyone else here in the room? Okay.
25 They're all shaking their heads no.

1 Let me turn now to Justin. And we had a
2 person queued up already on the WebEx.

3 MR. REGNIER: We should.

4 Mr. Vergara?

5 MR. VERGARA: Yes. Thank you again for
6 the opportunity to make public comment remotely.
7 My name is R. Bong Vergara from (indiscernible)
8 and USC School of Social Work.

9 I have -- this is really more an
10 observation, not only of the discussion from this
11 kind of segment of the meeting, but an
12 observation of the overall conversation around
13 technology and your spirited desire to engage
14 more meaningfully with grassroots communities.
15 It's clear to me that the investments you want to
16 make and so far have made have been guided by a
17 predominant focus on technical solutions or
18 hardware. But my -- I'd like to offer my
19 personal observation.

20 I think that technical solutions alone
21 may not ultimately achieve the broad community
22 engagement you say you want so badly to achieve.
23 I think that technical solutions alone take you
24 in an indirect route that indirectly reaches
25 emerging communities which often see innovation

1 and technology generation in general as an area
2 from which they are too far removed.

3 So if the underlying goal is deeper,
4 wider, broader engagement and meaningful
5 engagement of grassroots communities, focusing on
6 what I can only characterize as software, in this
7 case training, supporting ideation, supporting
8 entrepreneurship and the development of tech
9 entrepreneurs from the grassroots might also be a
10 worthwhile investment priority, especially as you
11 think about future solicitations so that your
12 solicitations not only push for more local
13 consumption of green technology, but also more
14 aggressively supports the training and ideation
15 that I'm gathering you want grassroots
16 communities to be engaged in.

17 COMMITTEE MEMBER SCOTT: Uh-huh. Thank
18 you.

19 Do we have other comments on the WebEx?

20 MR. REGNIER: No, ma'am.

21 COMMITTEE MEMBER SCOTT: I see a no.

22 So let us go on now to the manufacturing
23 category and the proposed funding allocation for
24 that. Let's -- we'll start with our Advisory
25 Committee Members on the WebEx again, just to

1 switch it up a little. Any Advisory Committee
2 Members on the WebEx who want to make a comment
3 about the manufacturing allocation?

4 UNIDENTIFIED MALE: This is
5 (indiscernible). Go ahead.

6 COMMITTEE MEMBER SCOTT: I hear Tyson.

7 UNIDENTIFIED MALE: Oh, go ahead. Go
8 ahead.

9 COMMITTEE MEMBER SCOTT: Go ahead.

10 MR. ECKERLE: All right. This is Tyson
11 from GoBiz.

12 So I think from the GoBiz perspective,
13 this is -- there's a lot of interest here. We
14 get a lot of companies coming in. And so I just
15 want to say, we'd love to work with you on
16 strategies to help use that money as effectively
17 as possible. We have a number of companies we
18 work with who want to bring manufacturing to
19 California. And we work with them on a variety
20 of incentives.

21 So one of the things that we worry about
22 a little bit is the timing of the solicitation
23 and the opportunities that might come in at a
24 time when the solicitation isn't on the street.
25 So this is something that we'd love to work with

1 you on.

2 COMMITTEE MEMBER SCOTT: Great. That's
3 sounds good. We'd be happy to work with you all
4 on that, too.

5 COMMITTEE MEMBER SHEARS: Yeah. This is
6 John Shears. I had to figure out how to navigate
7 the muting process, and it changed since I hung
8 up over the lunch break and called back in.

9 I just wanted to actually go back quickly
10 to the previous item and offer my support on John
11 Boesel's observation, which I think should have
12 been obvious to us earlier, to extend funding to
13 include distribution centers, especially given
14 the trend, industry trend to increase the number
15 of those facilities in the valley. So that's
16 going to become a growing challenge there.

17 And then the current item, I also just
18 wanted to offer my support on moving ahead with
19 the recommended funding level.

20 COMMITTEE MEMBER SCOTT: Great.

21 COMMITTEE MEMBER SHEARS: Thanks.

22 COMMITTEE MEMBER SCOTT: Thank you.

23 Other Advisory Committee Members on the
24 WebEx?

25 How about our Advisory Committee Members

1 here in the room?

2 COMMITTEE MEMBER TUTT: Yes. This is
3 Eileen with California Electric Transportation
4 Coalition.

5 I just wanted to ask, is this funding for
6 light-, medium- and heavy-duty vehicles, or are
7 you -- and components, or are you looking at a
8 specific vehicle category? Good. Okay. Then we
9 really --

10 COMMITTEE MEMBER SCOTT: You need to say
11 that for the --

12 COMMITTEE MEMBER TUTT: Oh, sorry. John
13 made the -- it's a big tent, so

14 MR. KATO: Right. It was a big tent,
15 yes. Sorry.

16 COMMITTEE MEMBER TUTT: And I'm making
17 the thumbs-up sign.

18 So the -- in that case, I really -- I
19 think this is really important, this funding.
20 I'm glad to see that it was added back in. I do
21 think that \$5 million is not enough, in part
22 because not only does this fund encourage
23 manufacturing of, you know, the zero-emission
24 vehicles that we want to see, but it also, it
25 really brings jobs to the state.

1 COMMITTEE MEMBER SCOTT: Uh-huh.

2 COMMITTEE MEMBER TUTT: And I already
3 know of at least a couple of companies that are
4 really excited about the fact that this funding
5 is coming back into this category. And they
6 are -- obviously, the ones I know about are zero-
7 emission vehicle companies. But I think that \$5
8 million is probably not going to cut it. So I
9 would suggest that this particular -- I mean,
10 everything is underfunded, so let's be real. I
11 mean, I'm -- but this one, I think, is actually
12 like I'm not asking for more money for the
13 electricity vehicle charging, even though we
14 obviously need it.

15 But on this one, I do think some
16 additional funding, especially this first year
17 that it's coming back would be really valuable,
18 just because we do have a challenge right now
19 about bringing jobs into the state. And \$5
20 million out of this whole budget for that purpose
21 seems a little bit low. But it should be -- I
22 definitely would not want to see it reduced, and
23 really appreciate the efforts by the CEC to put
24 it back in this year. I think you're going to
25 find that even if you double it, it will be

1 oversubscribed.

2 COMMITTEE MEMBER SCOTT: Other Advisory
3 Committee comments to the manufacturing proposed
4 funding allocation?

5 COMMITTEE MEMBER HOLMES-GEN: This is
6 Bonnie, and I'd just like to indicate support for
7 this category. Thanks for bringing it back.

8 COMMITTEE MEMBER SCOTT: Others?

9 COMMITTEE MEMBER GERSHEN: This is Joe.

10 COMMITTEE MEMBER SCOTT: Everyone ate a
11 big lunch.

12 COMMITTEE MEMBER GERSHEN: I'm
13 supportive, also.

14 COMMITTEE MEMBER SCOTT: Thank you.

15 Okay, I will then, hearing some silence
16 from our Advisory Committee Members, turn to our
17 members of the public. I'm getting a thumbs-up
18 from John.

19 COMMITTEE MEMBER HOLMES-GEN: Oh, no.

20 MR. BOESEL: Why don't I just stay here.

21 COMMITTEE MEMBER HOLMES-GEN: No. Come
22 on.

23 MR. SCHOTT: John Schott with
24 ChargePoint.

25 I mentioned it earlier, so this is

1 probably the appropriate section now. But
2 ChargePoint is also very supportive of the \$5
3 million allocated here. We've had some great
4 discussions with the CDC prior to this being
5 added back into the 2017-2018 Investment Plan, so
6 thank you for hearing us and others.

7 Some comments that we have provided, just
8 in terms of what would be allowable costs for
9 this grant.

10 You know, the cost of either purchasing
11 or leasing manufacturing space is probably one of
12 the biggest costs, so, you know, that possibly
13 being eligible, if it's not or hasn't been in the
14 past.

15 And also just the nature of this type of
16 a project and this type of a grant is very
17 different from, you know, the grants that --
18 other grants that ChargePoint has received for
19 electric vehicle charging infrastructure. You
20 know, having some knowledge and foresight on
21 exactly when this opportunity is going to be
22 released is not only helpful for companies like
23 ChargePoint and other manufacturers, but it also
24 ensures that the CEC will get much better
25 responses, because there's so much that needs to

1 be aligned in order to put these good
2 manufacturing projects together, and all the
3 resources that go into that.

4 So thank you.

5 COMMITTEE MEMBER SCOTT: Thank you.

6 Any others here in the room? Okay.

7 Let me turn to Justin and see if we have
8 public comment on the WebEx?

9 MR. REGNIER: We do. We've got one
10 comment for vehicle technologies. We didn't hear
11 under the wire last time, but I'll un-mute him
12 now.

13 John?

14 MR. PETRIES: Hello. This is John
15 Petries.

16 COMMITTEE MEMBER SCOTT: Hello.

17 MR. PETRIES: Can you hear me?

18 COMMITTEE MEMBER SCOTT: Yes, we can.

19 MR. PETRIES: Hello. This is John
20 Petries from Odyne Systems. Odyne System
21 develops and produced plug-in hybrid electric
22 systems for medium- and heavy-duty vocational
23 work trucks.

24 We commend the California Energy
25 Commission for its work in developing the 2017-18

1 Investment Plan, and agree with the proposed
2 funding levels.

3 Odyne has worked with CEC previously on
4 projects for medium- and heavy-duty vehicles.
5 And we appreciate the opportunity to work with
6 the Commission to reduce petroleum consumption
7 and improve air quality through reduced
8 greenhouse gas and NOx emissions.

9 Examples of vocational work trucks
10 include aerial devices, digger derricks,
11 compressor trucks, underground utility trucks,
12 refuse trucks, tree trimmers, and a host of other
13 applications. A typical work truck will spend
14 four hours of more per day performing stationary
15 work with a heavy-duty engine running to provide
16 power for the work function; 50 percent of more
17 of fuel used in greenhouse gases emitted and up
18 to 90 percent of the NOx emissions occur during
19 this stationary work cycle. They typically do
20 not travel high miles, the high miles in goods
21 transportation vehicles. And because of this,
22 the development of a plug-in hybrid vocational
23 vehicle focuses as much as electrifying the job
24 site as it does on driving efficiencies and
25 different hybrid solutions emerge.

1 Working with the NTA, we have estimated
2 that 145,000 medium- and heavy-duty work trucks
3 are produced annually by hundreds of final stage
4 manufacturers, and that there are over 1.4
5 million on the road today with an average of 14.8
6 years. While much focus is being placed on on-
7 road efficiencies by heavy-duty engine and
8 chassis manufacturers, small business, such as
9 Odyne, are developing the current real-world
10 solutions for this unique segment of vehicles.

11 Odyne agrees with the Commissioner's
12 comments in the section of the Update Investment
13 Plan regarding advanced freight and fleet
14 technologies, regarding matching the technology
15 to the particular duty cycle and vocation. We
16 encourage the Commission to continue to recognize
17 that a significant number of fleets operate
18 vocational vehicles that have a combination of
19 driving and stationary duty cycles, and request
20 the Commission to include technologies that
21 provide benefits over the entire duty cycle,
22 including both the driving and stationary
23 operation, and help to reduce the cost of these
24 technologies.

25 We applaud the diversity of the 2017-18

1 Investment Plan and urge the Commission to
2 continue to consider the full range of medium-
3 and heavy-duty vehicles as it begins to refine
4 the scope of the advanced freight and fleet
5 technologies funding.

6 Thank you.

7 COMMITTEE MEMBER SCOTT: Thank you.

8 Any other public comment on the WebEx
9 with response to the manufacturing proposed
10 funding allocation?

11 MR. REGNIER: No, ma'am.

12 COMMITTEE MEMBER SCOTT: Okay. I'm
13 getting a head shake.

14 So let us now turn to the proposed
15 funding allocation for emerging opportunities.
16 And I'll open it up to whichever Advisory
17 Committee Member jumps in first.

18 Everyone had a like a big lunch, I guess.

19 COMMITTEE MEMBER TUTT: So this is Eileen
20 Tutt with Cal ETC. I feel like I held back, and
21 still nobody jumped in.

22 But I just want to say that I really
23 support the workforce training development. I am
24 -- I think that's very, very important,
25 particularly at the community college level. I'm

1 a little -- I'm not sure about expanding it into
2 high school paths, unless it's not oversubscribed
3 by the community college effort. I don't know.
4 I'm not saying I oppose it or anything like that,
5 I'm just not sure.

6 Maybe you could explain to me why that
7 would be -- I don't know that -- I just don't
8 know if there's a need there or did somebody ask
9 for it, or how did that -- it would haven't have
10 occurred to me as something to include.

11 MR. ORENBERG: Yeah. This is Jacob
12 Orenberg.

13 I'm honestly not the best person to talk
14 to about this. But, you know, our Workforce
15 Training and Development staff at the Energy
16 Commission did see a potential --

17 COMMITTEE MEMBER SCOTT: We're putting
18 our Public Adviser on the spot.

19 MS. MATTHEWS: I can speak to it.

20 MR. ORENBERG: Okay. Yeah. So Alana
21 Matthews is coming up now, and she'll actually
22 finish answering the question.

23 MS. MATTHEWS: So I'm not a part of the
24 technical staff but --

25 COMMITTEE MEMBER SCOTT: Wait. Come

1 closer to this one or that one.

2 MS. MATTHEWS: I'm not a part of the
3 technical staff or the Energy Commission, but I
4 do lead up our Diversity Initiatives and look for
5 opportunities to expand all of our funding to
6 reach out to disadvantaged communities,
7 grassroots communities. And so part of that is
8 building a pipeline.

9 COMMITTEE MEMBER TUTT: Uh-huh.

10 MS. MATTHEWS: So we have a very
11 successful summer institute in Energy Law and
12 policy, where we bring high school students into
13 the schools. And it's a way to engage grassroots
14 community to the career pathways, as well as the
15 technology, and to have a first-hand view as to
16 the benefits of the technology. Because you're
17 not going to see anyone driving a Tesla or see
18 the benefits of, you know, having electrical
19 vehicle or alternative vehicle. So by expanding
20 it into the high schools, we're kind of building
21 the pipeline, we're educating the community, and
22 we're engaging more Californians to take
23 advantage of the technology that's out there.

24 COMMITTEE MEMBER TUTT: Okay. That's a
25 really great answer. But is that -- and I'm

1 sorry, I should have read the report on that
2 particular component -- but is that reflected in
3 the report, that this is really an effort to
4 reach out to the disadvantaged communities?
5 Because if it isn't, it probably needs to be
6 highlighted because I think that does -- it just
7 was something that, I mean, I think of that as
8 sort of the community college is also addressing
9 that same need. And I just wasn't aware of it in
10 the high school area, so --

11 MS. MATTHEWS: And I will also add that
12 this kind of compliments the outreach to the
13 community college because there is an established
14 program between the Department of Education and
15 local school districts. They call them --

16 COMMITTEE MEMBER TUTT: Oh, okay.

17 MS. MATTHEWS: -- Career Pathway
18 Academies. So it's a direct feeder into those
19 programs so that the community colleges aren't,
20 you know, looking for other people. We kind of
21 already have that pipeline to take advantage.

22 COMMITTEE MEMBER TUTT: Okay. So those
23 would be coordinated?

24 MS. MATTHEWS: Yes.

25 COMMITTEE MEMBER TUTT: Perfect.

1 MS. MATTHEWS: Yes.

2 COMMITTEE MEMBER TUTT: Okay.

3 MR. ORENBERG: Right.

4 COMMITTEE MEMBER TUTT: Thank you.

5 MR. ORENBERG: Right.

6 COMMITTEE MEMBER SCOTT: Yes, please.

7 MR. BUTLER: This is John Butler. I'm
8 manager of the ARFVTP.

9 So I just wanted to let folks know that
10 staff is planning to hold a staff workshop on
11 workforce training March 29th. It's tentatively
12 scheduled. You'll be hopefully seeing a notice
13 for this here soon. We're going to be talking
14 about the opportunities that are, you know, in
15 front of us in this area and how we can best
16 focus our workforce training funds.

17 So anybody who's interested in this
18 topic, we're going to look for that notice. And
19 we'd really appreciate the input.

20 COMMITTEE MEMBER TUTT: Definitely
21 interested.

22 COMMITTEE MEMBER LAWSON: Hi. This is
23 Thomas Lawson with the California Natural Gas
24 Vehicle Coalition.

25 I would -- I think this is a great

1 allocation for the emerging opportunities, as
2 well as for the workforce training.

3 I also agree with the reason why we
4 should do it at high schools. One of the
5 problems that you have at some communities of
6 color, disadvantaged communities is, you know,
7 what are they going to do after high school, or
8 whether or not they even see a reason to complete
9 high school. And for some of these kids, giving
10 them an opportunity to kind of see a different
11 path, maybe college is not for them, is really
12 helpful to kind of give them a little bit more
13 hope and a path forward.

14 I'm actually in Southern California, in
15 Carson, and so I know some folks who would have
16 benefitted from some programs like this, you
17 know, when we were growing up. And so I think
18 this is a great thing. And I think you can never
19 go too early because you never know when you run
20 out of opportunities to reach folks. So I think
21 it's a great, great move by CEC here.

22 Thank you.

23 COMMITTEE MEMBER SCOTT: Thank you.

24 Other Advisory --

25 COMMITTEE MEMBER SHEARS: Yeah. This

1 is --

2 COMMITTEE MEMBER SCOTT: Oh, go ahead.

3 COMMITTEE MEMBER SHEARS: Sorry. John
4 Shears.

5 So definitely support the town folk's
6 clause (phonetic) for emerging opportunities.

7 And on the workforce training side of
8 things, I'd like to recommend CEC staff talk with
9 the ARB staff that are working on implementing
10 the Appendix C part of the VW settlement.

11 Several of us have been advocating over at the
12 ARB that the VW investment plans, of which there
13 will be three over the next ten years, include
14 money to help ramp up workforce training in
15 anticipation of the growth of ZEVs in the
16 California market. I understand the VW lawyers
17 may not be open to that notion, wanting to spend
18 it more on infrastructure in vehicles and the
19 like, so I think it would be good.

20 Peter Cooper, as well, has been in
21 communication with ARB staff on this. So I think
22 it would be helpful to sort of work again,
23 looking for the synergies going forward of how
24 this program could work with other opportunities,
25 including the implementation of the VW

1 settlement, so thanks.

2 COMMITTEE MEMBER SCOTT: Thank you.

3 I do not have any --

4 COMMITTEE MEMBER GOLDSTEIN: Hi. This is
5 Brian Goldstein from EIN. Can you hear me?

6 COMMITTEE MEMBER SCOTT: Yes. Go ahead,
7 Brian.

8 COMMITTEE MEMBER GOLDSTEIN: Oh, great.
9 All right. I've been battling the same issue
10 that John has since lunch. So I think I finally
11 persevered there.

12 So, hey, I want to commend the Commission
13 on the Emerging Opportunities section. I think
14 it shows a lot of flexibility. And I
15 specifically, you know, obviously a big fan of
16 the shot for renewable hydrogen there. And
17 there's some focus on electrolysis. And, you
18 know, I'll preface that by saying I'm really
19 neutral on the production methods.

20 But to go off of Bonnie's comments
21 earlier, you know, I think there's a lot of
22 overlap between the different technologies that
23 we're discussing; right? So if we're talking
24 about biogas or CNG, that same biogas is a
25 feedstock for hydrogen; right? If we're talking

1 about, you know, increasing the ability to carry
2 an electrical load to fast charging sites, the
3 excess electricity there can potentially feed an
4 electrolyzer.

5 So I think we are and we kind of have to
6 look at each of these technologies in silos in
7 order to try to, you know, make sure there are
8 fair allocations for each different technology.
9 But I think there is an opportunity to at least
10 research a little bit where that overlap lies.

11 And, you know, for example, if we're, you
12 know, still putting CNG infrastructure, you know,
13 onto school lots or fleet lots, you know, there
14 certainly is still a necessity for that, even
15 though, you know, we all want to work towards a
16 true zero-emission future; right? But if we can
17 look at, you know, is it possible, when we're
18 ready for that, to use the same compressors to
19 then convert that over to a hydrogen station five
20 years or ten years down the line?

21 You know, the same goes for biogas right
22 now. You know, the biogas that we actually want
23 to directly use in these vehicles, when we get to
24 the point where we're not burning it anymore, are
25 we set up properly to use that biogas to feed

1 into, you know, a fuel cell system or potentially
2 an SMR system to then produce renewable hydrogen
3 with it?

4 So, you know, I guess what I'm saying is
5 that there is a lot of overlap between the silos
6 here. And I think with, you know, a little
7 research, looking at kind of all of them
8 together, there may be some opportunities where,
9 you know, we make a couple of different steps,
10 whether it's, you know, a little bit of, you
11 know, different equipment going into one site
12 that just prepares it for whatever the next step
13 may be, it seems that we can, you know, set
14 ourselves up to take advantage of the stepping
15 stone approach that we have to use right now, but
16 still be very well prepared when the technology
17 that we're waiting for is available.

18 So I just wanted to mention that. I
19 think it kind of works with this Emerging
20 Opportunities section. And again, I appreciate
21 the opportunity to speak with you guys.

22 COMMITTEE MEMBER SCOTT: That's great. I
23 feel like I have ideas for IEPR workshops that
24 aren't on the list now.

25 MR. KATO: Oh, no.

1 COMMITTEE MEMBER SCOTT: IEPR is short
2 for Integrated Energy Policy Report.

3 Other comments from our Advisory
4 Committee Members on either the emerging
5 opportunities or the workforce training and
6 development proposed funding allocations?

7 COMMITTEE MEMBER HOLMES-GEN: So this
8 is --

9 COMMITTEE MEMBER SCOTT: Bonnie?

10 COMMITTEE MEMBER HOLMES-GEN: -- this is
11 Bonnie Holmes-Gen with the Lung Association.

12 And so I would, you know, I would
13 definitely support the workforce training and
14 development. I appreciate all of the comments
15 that have been made. It's extremely important to
16 develop our workforce ready to work on these
17 electric vehicles and fuel cell and all these new
18 technologies. And I think all the discussion
19 about outreach and involving community partners
20 and designing those programs are really
21 important.

22 And on the emerging opportunities, I'm
23 wondering, especially on the issue of developing
24 renewable hydrogen, that's such an important
25 piece of what we're trying to do here in getting

1 to zero emissions. And that was one piece of
2 this emerging opportunities. I'm just wondering,
3 is there a need for more focus on that? I mean,
4 are the projects that you're funding here showing
5 a need for more research in this area to
6 understand how we can move that forward faster?

7 MR. ORENBERG: So this is Jacob Orenberg.

8 Presently, we feel that, based on the
9 deployment of hydrogen fueling stations and
10 vehicles, having the renewable hydrogen
11 production in the emerging opportunities category
12 is sufficient. You know, of course, in future
13 investment plans in future years, we will revisit
14 this and determine where it will best fit.

15 MR. KATO: Oh, go ahead.

16 COMMITTEE MEMBER HOLMES-GEN: Go ahead.

17 MR. KATO: So this is John Kato.

18 And we did hold a workshop a couple
19 Mondays ago and invited all the technology
20 experts and people that utilize and occupy this
21 space. And they provided a very good information
22 background and provided us with information that
23 gave us a lot more confidence that there are
24 opportunities that exist now that are real, and
25 not as much as a demonstrative part, but really,

1 they're ready for commercialization. And I think
2 this might be a great opportunity to make that
3 into more of a reality. And so hopefully we'll
4 get some really good projects.

5 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.
6 Well, I think that's a really important piece of
7 this. So I'm happy to see that being funded.
8 And, you know, just as you're writing up this
9 section, it might be helpful to try to reflect on
10 the past funding in this area and which of these
11 projects are showing promise that there is a need
12 for more focus in future plans. Like I'm
13 wondering about the South Coast Air District and,
14 you know, this overhead line. I know they've
15 been really focused on some of these technologies
16 for the freight sector. And I'm wondering if
17 maybe that needs a little more focus.

18 So it might be helpful just to kind of
19 reflect a little bit on the projects and what
20 we've learned going forward from this section, so
21 I would just make that comment.

22 And we're not talking yet about the last
23 piece; is that correct?

24 COMMITTEE MEMBER SCOTT: I think we kind
25 of blended emerging opportunities and work --

1 this is Janea Scott.

2 We kind of blended emerging opportunities
3 and workforce training and development. So --

4 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.

5 COMMITTEE MEMBER SCOTT: -- please feel
6 free to talk about either one of those.

7 COMMITTEE MEMBER HOLMES-GEN: Okay. All

8 right. COMMITTEE MEMBER SCOTT: And I think
9 those are the two -- last two categories.

10 COMMITTEE MEMBER HOLMES-GEN: Okay.

11 Well, I guess that's fine for now then. I'll
12 wait for the Regional Alternative Fuel headings
13 section.

14 COMMITTEE MEMBER SCOTT: Oh, right. I
15 don't have that on the list. Okay.

16 Other comments from Advisory Committee
17 Members on either emerging opportunities or
18 workforce training and development?

19 MR. ECKERLE: Yes, quickly. This is
20 Tyson for GoBiz.

21 And I think on the -- well, both, we're
22 very supportive of both. But I think on the
23 emerging opportunities, the hydrogen piece is
24 really exciting. I think it's a neat opportunity
25 to potentially marry the grid with hydrogen and

1 kind of showcase what can be done to help use
2 that to grow the whole renewable energy pie. And
3 so I think, like John said, there's lots of neat
4 potential projects that could come, so I'm
5 excited to see what comes out of that.

6 COMMITTEE MEMBER SCOTT: Thank you.

7 Other Advisory Committee Members?

8 COMMITTEE MEMBER GRANT: Yeah. This is
9 Sekita. Can you hear me?

10 COMMITTEE MEMBER SCOTT: Yes.

11 COMMITTEE MEMBER GRANT: Cool. I think
12 this is mostly for the workforce training
13 development. I'm happy to see that we're funding
14 in this category. And I think it could be a good
15 time to -- and Commissioner Scott, as you know,
16 this is a very unique pot of money in terms of
17 the ability to provide direct workforce training
18 dollars within the clean energy sector.

19 Something that is not moving right now is the cap
20 and trade money. And the CPUC funding resources
21 are not quite, you know, having this type of very
22 clearly stated line item. So it's a very unique
23 and exciting pot of money that we think can --
24 should continue to grow, and I think it should.

25 We've heard from communities on the

1 ground, commentary on issues with emerging
2 technologies. You know, natural gas is given as
3 an example where folks went out and invested or,
4 you know, went out and supported a natural gas
5 truck, but there wasn't kind of the support on
6 the workforce training side to help with the
7 maintenance and upkeep. And there ended up
8 being -- in some cases it ended up being very
9 costly for folks.

10 And so as we're continuing to push these
11 really new, great technologies, particularly
12 electrification space, I think it helps
13 communities and kind of the early adopters and
14 folks that do not have a lot of money to be in
15 this space, making sure that there's also a
16 workforce there to help support and maintain
17 those vehicles for the life of that investment.

18 And so I think it could be worthwhile to
19 have, you know, not to keep adding workshops, but
20 to have a public discussion specifically on this
21 topic to see, you know, what are the needs in
22 terms of workforce training and development for
23 clean transportation. Who is already on the
24 ground working in these spaces. I know we have
25 folks represented here who are on this Advisory

1 Committee who work on that. But, you know, who
2 is out there and would be willing to support and
3 put this money to good use. And in that vein,
4 looking for ways to, you know, do this funding
5 category to effectively partner with community
6 organizations on kind of the overall of these
7 solicitations and these projects.

8 So thank you.

9 COMMITTEE MEMBER SCOTT: Thank you.
10 Yeah, those are great suggestions.

11 COMMITTEE MEMBER HOLMES-GEN: One last
12 question.

13 COMMITTEE MEMBER SCOTT: Yes. Go ahead.

14 COMMITTEE MEMBER HOLMES-GEN: Where is
15 the research center, the University of
16 California? Oh, I guess it's Davis. Okay. So
17 is it just it's at the Davis campus or it's in
18 other parts of the state? Just in Davis?

19 COMMITTEE MEMBER SCOTT: Can you tell us
20 what page you're on?

21 COMMITTEE MEMBER HOLMES-GEN: Oh, just on
22 the emerging -- the UC Davis, "establish a center
23 for research and strategies for promoting
24 alternative fuels," that particular project.

25 MR. ORENBERG: Page 71.

1 COMMITTEE MEMBER HOLMES-GEN: Is that
2 focused on demonstration projects that are
3 produced there or in putting projects in other
4 areas of the state?

5 COMMITTEE MEMBER SCOTT: I think we're
6 going to have to circle back with you --

7 COMMITTEE MEMBER HOLMES-GEN: Okay. All
8 right.

9 COMMITTEE MEMBER SCOTT: -- on the exact
10 details of that project.

11 COMMITTEE MEMBER HOLMES-GEN: Okay.
12 Thank you.

13 COMMITTEE MEMBER SCOTT: Yeah. But we'll
14 be happy to circle back with you on that.

15 COMMITTEE MEMBER HOLMES-GEN: Okay.

16 COMMITTEE MEMBER GRANT: I have a quick
17 question, a process question.

18 And Jacob, in your presentation, you had
19 a slide on kind of posing the question on how do
20 we capture or how do we allow for equitable
21 distribution, environmental and economic benefits
22 from this program. Was that kind of like an open
23 question for later? Should we reach out to you
24 if we have suggestions on that?

25 MR. ORENBERG: Yeah, it's an open

1 question for now, if you would like to discuss it
2 now. Alternatively, we welcome everyone to
3 docket any comments they may have on that issue.
4 But either way, it would be very helpful to hear
5 those things.

6 COMMITTEE MEMBER GRANT: Okay. Well,
7 I'll just mention quickly, I mean, it relates to
8 some of the comments I just made around the
9 workforce training. I think there's also
10 opportunities to enforce what the supply chain
11 looks like. This is kind of something that the
12 California Public Utilities Commission does
13 through it's GO-156 program. But looking at, you
14 know, really increasing access to small and
15 diverse businesses with this funding. And I'm
16 glad Alana is there. She's been doing a lot of
17 work and thinking on that.

18 Also, to the extent that we are, as
19 they're bringing this technologies, we're looking
20 at how to hire folks from within the same
21 communities that we're hoping to impact with
22 cleaner air, and that can get a little
23 complicated. But to the extent that we're
24 encouraging targeted hiring within disadvantaged
25 communities and low-income communities, that

1 could be enormously beneficial for
2 underrepresented communities.

3 And then I think really increasing
4 communication between, you know, the state's
5 expertise in this area and the expertise within
6 communities. And so getting that -- really
7 strengthening that relationship, I think, with
8 community groups and, you know, I'm seeing that
9 happen quite a bit. And I know Commissioner
10 Scott and Alana have really taken it upon
11 themselves to make sure that's prioritized. But
12 I think continued work in that space is valuable.

13 Thank you.

14 COMMITTEE MEMBER SCOTT: Thank you.

15 Other Advisory Committee Members? Okay.

16 Let me turn to our members of the public
17 here in the room. Any comments on emerging
18 opportunities or workforce training and
19 development?

20 MR. BOESEL: John Boesel with CALSTART.

21 I will just say that I think this is --
22 it's really good to retain some flexibility, and
23 I think it's good to build that into the program.

24 I would say that I think the demand for
25 this kind of funding could be pretty substantial.

1 So maybe just if there was like a big hardware
2 project, you know, maybe, I don't know much about
3 this renewable hydrogen one but, you know, maybe
4 that's something where EPIC could help out,
5 possibly. Maybe it's sort of a little more in
6 the EPIC space, don't know. Maybe there's some
7 way to combine it with the other \$20 million
8 hydrogen station investment. Just something to
9 think about.

10 John, I'm -- I'm really glad that John
11 Butler is going to be holding the workforce
12 training workshop. I mean, there's a really good
13 opportunity to bring companies into the room, but
14 also hear from the state Employment Training
15 Panel about the resources they have, see how all
16 these things kind of match up, and then really
17 what the real need is.

18 I'd like to say that, you know, we have
19 hundreds of thousands of people in the clean
20 transportation technology industry today in
21 California, but we're more like tens of
22 thousands, and that's mostly because we have
23 Tesla with 12,000. And we should really be doing
24 everything we can to keep Tesla going. I just
25 want to put in a plug for them.

1 And then lastly is -- or the two last
2 points is there wasn't a lot of discussion about
3 using these dollars to capture federal matching
4 funds. Maybe there won't be much of an
5 opportunity with a new administration, so I'm
6 just noting that more than anything. And then
7 also, I think that this -- perhaps this category
8 could be used to fund some good technical
9 assistance work that's being done here in the
10 valley and elsewhere going forward. So I just
11 would like to have the language be flexible
12 enough so it could support technical assistance
13 work.

14 COMMITTEE MEMBER SCOTT: Thank you.

15 Hold on. We have another member of the
16 public in the room making her way.

17 MS. TURNER: Again, it's Brenda Turner
18 with Project Clean Air and San Joaquin Valley
19 Clean Cities.

20 I just want to really thank the CEC. We
21 were able to get grant funding through the Kern
22 Community College District, who we partnered with
23 for many years on various electric vehicle
24 components, especially through our electric
25 vehicle partnership. But we were able to do two

1 great projects.

2 One on particular was developing an
3 electric vehicle lesson plan workshop. And we
4 targeted mainly high school teachers. We did
5 have some middle school teachers that came. The
6 teacher that taught it piloted the program with
7 his engineering students at his high school. And
8 we did a video based on their comments and
9 telling about the program, the need for it
10 because of the pollution in our area, as well as
11 just that, you know, electric cars are cool. And
12 the kids just ate it up. They were racing the
13 cars. And the teachers, we had comments from
14 some of the teachers that they thought it was the
15 best STEM training that they had attended.

16 Personally, my daughter was able to come.
17 She's an administrator at the Arvin School
18 District. And she shared the electric cars with
19 the migrant students during summer school. And
20 another part of that component was doing a summer
21 school component where we reached out to about
22 500 children in summer schools, through Boys and
23 Girls Clubs, some STEM-related programs in
24 Sanger. So we're reaching these, you know,
25 disadvantaged communities. They are learning

1 about it.

2 You know, kids are starting to drive cars
3 when they're 16. And if their first car is an
4 electric car, or they can influence their parents
5 to buy an electric car, then they're much more
6 liable to keep that behavior up for the rest of
7 their, you know, the rest of their time. My own
8 little granddaughters are excited about the Tesla
9 3 they have on order.

10 So, yeah, so the earlier we can start
11 them the better. And I think the high school
12 program, I would wholeheartedly support funding
13 for that.

14 COMMITTEE MEMBER SCOTT: Thank you.

15 Any other comment in the room? Okay.
16 I'm not getting response from our other folks who
17 are members of the public here in the room.

18 Do I have members of the public on the
19 WebEx who would like to speak to either the
20 emerging opportunities or the workforce training
21 and development proposed funding allocations?

22 MR. REGNIER: No, ma'am.

23 COMMITTEE MEMBER SCOTT: Okay. I am
24 seeing that there is a no.

25 Bonnie has asked us to also talk about

1 the regional readiness.

2 So please go ahead, Bonnie, and weigh in
3 there.

4 COMMITTEE MEMBER HOLMES-GEN: Yeah. No.
5 Thanks. This is Bonnie Holmes-Gen.

6 I just wanted to support the funding. I
7 believe there is funding this year, right, in
8 this area? And this is very important to
9 generate local government support and engagement
10 and moving forward on alternative fuels and zero-
11 emission technologies, specifically. We know
12 that we just can't move forward without this
13 state-local partnership.

14 So I just think this piece of it, the
15 readiness, alternative fuel readiness and
16 planning awards is an important piece of
17 encouraging that local government partnership.
18 And, in fact, I really think that it should --
19 you know, like we all say, all of it should be.
20 We should expand all of these pieces. But I do
21 think this is a very important piece. We need to
22 look at every potential way that we can generate
23 exciting and, you know, beyond excitement, but
24 truly local leadership and action to match the
25 leadership that's happening at the state level.

1 And I'm wondering if there's any
2 initiatives that have happened at the local level
3 out of this that we should be really focusing on
4 and trying to replicate in other areas? Is there
5 anything that's, you know, exciting that's
6 really -- that's come out of this that we should
7 maybe talk about as an Advisory Committee and how
8 we can support and expand? Maybe something for a
9 future discussion.

10 COMMITTEE MEMBER SCOTT: I do think that
11 would make a fantastic future discussion because
12 I have -- you might -- I think you were
13 driving --

14 COMMITTEE MEMBER HOLMES-GEN: Well, I
15 heard a little bit, yes.

16 COMMITTEE MEMBER SCOTT: -- when I
17 mentioned this.

18 COMMITTEE MEMBER HOLMES-GEN: That's
19 right.

20 COMMITTEE MEMBER SCOTT: So I just want
21 to clarify for you --

22 COMMITTEE MEMBER HOLMES-GEN: YES.

23 COMMITTEE MEMBER SCOTT: -- that in this
24 year's plan there aren't any dollars for regional
25 readiness.

1 COMMITTEE MEMBER HOLMES-GEN: Okay. All
2 right.

3 COMMITTEE MEMBER SCOTT: But that's
4 because we have money from last year's plan to
5 carry over to this year.

6 COMMITTEE MEMBER HOLMES-GEN: Okay.

7 COMMITTEE MEMBER SCOTT: So that area
8 will be funded this year, but it's from last
9 year's dollars, not from this year's dollars.

10 COMMITTEE MEMBER HOLMES-GEN: Okay.

11 COMMITTEE MEMBER SCOTT: And if I didn't
12 articulate that very well, we can have Jacob
13 restate it.

14 COMMITTEE MEMBER HOLMES-GEN: Uh-huh.

15 COMMITTEE MEMBER SCOTT: And then one of
16 the things that I mentioned is I have asked the
17 team -- our EPIC program took on what they called
18 the EPIC Challenge. And it was on zero-net energy
19 and how to make communities kind of like zero-net
20 energy communities; right? And they, you know,
21 designed a challenge where a lot of -- where the
22 community is basically able to design, what do
23 they want their community to look like? And the
24 first round of that grant was for planning.

25 So what we'd like to do with our Regional

1 Readiness Grant, and we haven't set this up yet,
2 so we would love to have you and the other
3 Advisory Committee Members and the members of the
4 public, who are interested in this, weigh in and
5 help us as we shape it.

6 The same thing for alternative vehicle
7 infrastructure. So the example that I threw out,
8 and I was just brainstorming, you know, off the
9 top of my head but, you know, maybe you have your
10 local school, the library, two or three mom and
11 pop businesses, I don't know who else, you know,
12 a multifamily -- a couple of multifamily
13 buildings. And they say, okay, for our
14 community, this is what we need in terms of
15 charging infrastructure. This is what it needs
16 to look like. Okay, if we put the DC fast
17 charger here, that's how we capture everyone in
18 this apartment building, or if we put -- you
19 know, I don't know what their design -- that they
20 would come up. But challenge them to come up
21 with a great design. And we will score those
22 proposals, and some of those proposals will win
23 the Regional Readiness dollars.

24 Then the next year funding, or it might
25 be two years, it might take them a little bit

1 longer to get a really decent plan together, only
2 the people who won that first go-round could
3 compete for the second round of dollars to fund
4 their implementation of their plan.

5 So we'd really like to put something
6 together like that, that kind of attacks this
7 very idea that you've raised, Sekita raised, and
8 Eileen has raised, and many of you have raised it
9 during the conversation today, how do we bring
10 the local communities in, let them plan, and then
11 the winners of the plan, we'll give them some
12 implementation dollars to go get that charger out
13 there.

14 And so we're trying to think about how do
15 we kind of take that planning and turn it into
16 important, so that's something that I'm excited
17 about.

18 We have not started developing -- maybe
19 we've sort of started developing it. But we'll
20 get going on that and would love to have your
21 input as we put that together.

22 One of the things that the EPIC team also
23 came up with that I thought was fantastic is they
24 had -- I think they had 13 winners. And they
25 think that we might only be able to fund, you

1 know, two or three of those plans out of the EPIC
2 dollars that they have. But if you are a
3 community that's put together a fantastic plan,
4 maybe the South Coast would want to fund it.
5 Maybe San Joaquin Valley would want to fund it.
6 Maybe your county would want to fund it. Maybe
7 DOE or EPA; right? They'll have a solid plan
8 that even though the Energy Commission dollars
9 might not be able to fund all of them, somebody
10 else's dollars might be able to.

11 And I thought that was a really exciting
12 idea. So I asked the Transportation team to
13 bring that into the transportation space. And so
14 that's one of the things we're thinking about for
15 the Regional Readiness dollars.

16 COMMITTEE MEMBER HOLMES-GEN: Well, yes,
17 and thank you. I heard it a little bit from
18 afar. But, yes, thank you for going over that
19 again. I think it's really important. And I
20 think there are opportunities to coordinate and
21 collaborate with the GGRF pots of money. And, in
22 fact, I think it was mentioned, the
23 Transformative Communities Program --

24 COMMITTEE MEMBER SCOTT: Uh-huh.

25 COMMITTEE MEMBER HOLMES-GEN: -- which

1 is, I think, maybe one of those programs that
2 could --

3 COMMITTEE MEMBER SCOTT: Yeah.

4 COMMITTEE MEMBER HOLMES-GEN: -- maybe
5 work together with this. And if there's not
6 enough money in the CEC pot, which there probably
7 isn't, but looking at that pot --

8 COMMITTEE MEMBER SCOTT: Uh-huh.

9 COMMITTEE MEMBER HOLMES-GEN: -- also,
10 because there's a lot of -- that's an effort to
11 take a look at multiple, you know, multiple
12 projects within a community to truly provide the
13 most health and air quality and climate benefits
14 within the community, looking at it from multiple
15 perspectives -

16 COMMITTEE MEMBER SCOTT: Uh-huh.

17 COMMITTEE MEMBER HOLMES-GEN: --
18 transportation and other GHG reduction projects.

19 So kudos. And, yes, I would like to be
20 connected. I would like to see if there's a way
21 that the Lung Association could help with that
22 effort.

23 COMMITTEE MEMBER SCOTT: Great. That
24 would be terrific. So I anticipate you are on
25 our LISTSERV, so you'll get the --

1 COMMITTEE MEMBER HOLMES-GEN: Okay.

2 COMMITTEE MEMBER SCOTT: -- the notice;
3 right? I think you're on our LISTSERV.

4 COMMITTEE MEMBER HOLMES-GEN: I believe.
5 Well --

6 COMMITTEE MEMBER SCOTT: If not, please
7 sign up.

8 COMMITTEE MEMBER HOLMES-GEN: I don't
9 know if I -- actually, I'm not sure if I am. So,
10 yeah, I need to make sure I get on that LISTSERV.

11 COMMITTEE MEMBER SCOTT: Because that's
12 how you'll get notification that --

13 COMMITTEE MEMBER HOLMES-GEN: Okay.

14 COMMITTEE MEMBER SCOTT: -- we're working
15 on it for sure.

16 COMMITTEE MEMBER HOLMES-GEN: Okay. And
17 what is the exact LISTSERV?

18 MR. KATO: We'll send --

19 COMMITTEE MEMBER HOLMES-GEN: You'll send
20 me the info?

21 MR. KATO: Yeah.

22 COMMITTEE MEMBER HOLMES-GEN: Okay. All
23 right.

24 COMMITTEE MEMBER SCOTT: Okay.

25 COMMITTEE MEMBER HOLMES-GEN: Thank you.

1 MR. KATO: I'll make a personal effort to
2 do that, yes.

3 COMMITTEE MEMBER HOLMES-GEN: Okay.

4 COMMITTEE MEMBER SCOTT: Thank you.

5 Do we have other thoughts or comments on
6 regional readiness from the Advisory Committee
7 Members? Okay.

8 COMMITTEE MEMBER GOLDSTEIN: Yeah. This
9 is Brian Goldstein.

10 COMMITTEE MEMBER SCOTT: Yes.

11 COMMITTEE MEMBER GOLDSTEIN: Oh. Can you
12 hear me?

13 COMMITTEE MEMBER SCOTT: I can. Go
14 ahead, Brian.

15 COMMITTEE MEMBER GOLDSTEIN: I just
16 wanted to say I think the comments you just made
17 about having the regional readiness plans
18 actually lead to another opportunity for those
19 specific regions, I think that's a great idea.
20 You know, I've seen firsthand.

21

22 I've been helping one of the awardees
23 from, you know, a couple years ago try to make a
24 regional readiness plan for hydrogen in an area
25 where, you know, they know that they're not on

1 the top of the list as far as where stations
2 might go, whether it's from the government or
3 from the automotive OEMs. But they're very
4 interested in getting this technology there. And
5 they've been working very hard for, you know, a
6 couple of years to develop the plan. And every
7 time we talk about it the first thing they say
8 is, hey, we know we're not on the top of the list
9 and probably won't get any CEC funding, but this
10 is still very important to us.

11 So I think, you know, your comments there
12 just really hit it on the head, and I think would
13 provide even, you know, that extra incentive for
14 smaller communities to go out and apply for the
15 Community Planning and Readiness Grants, with the
16 knowledge that they have a good opportunity to
17 actually bring in some of the infrastructure and
18 implement the plan.

19 So I think that's a great idea and, you
20 know, just really happy to hear you say that.

21 COMMITTEE MEMBER SCOTT: Thanks.

22 COMMITTEE MEMBER SHEARS: Yeah. This is
23 John Shears.

24 It sounds like a great idea, but I think
25 my concern is a concern that sort of crosses all

1 of the other efforts that the state has been
2 undertaking to meet -- to address the legislative
3 requirements for providing funds to directly and
4 indirectly benefit disadvantaged communities.
5 And now we can add low-income communities onto
6 that.

7 And that is, is that, you know, projects
8 that have been successful so far, for example, in
9 getting funding from CARB under the Low Carbon
10 Transportation funding program for pilots, et
11 cetera, to benefit disadvantaged communities,
12 those were in communities that had agencies and
13 multiple other actors who had a wealth of
14 capacity to assist the disadvantaged communities
15 in their regions to put together the proposals.

16 When you look to rural communities, it's
17 a completely different kettle of fish. But,
18 sorry, but I can't remember who's there from the
19 San Joaquin Valley Clean Cities. But I think
20 they would probably be nodding their heads right
21 now in response to my comments. I know there are
22 considerable challenges trying to get the mini,
23 small communities in the valley engaged, just
24 because they don't have capacity.

25 So I wouldn't want to have this Regional

1 Readiness funding go into a pot that didn't take
2 into consideration the challenge -- capacity
3 challenges that face a lot of the smaller
4 communities who might want to try and compete for
5 this pot of money.

6 COMMITTEE MEMBER SCOTT: Uh-huh. Fair
7 enough. That's a fantastic point. It's
8 something that we are worried about, as well.
9 And I will let you know that our folks from the
10 Valley were nodding and smiling as you said that.

11 Other thoughts on the regional readiness
12 from the Advisory Committee Members? Okay.

13 Why don't we do this, we need to -- let
14 me check here in the room. Any thoughts on
15 regional readiness from folks in the room? Okay.
16 I'm seeing a no.

17 MR. REGNIER: And nothing popped up.

18 COMMITTEE MEMBER SCOTT: I'm seeing a no
19 on the WebEx.

20 Let us then open it up for general public
21 comment. If there was a broader comment, not on
22 one of these categories, and you're the public
23 and you wanted to make it, now is a great time.
24 I'm seeing a no here in the room.

25 MR. REGNIER: I think Michael Menjivar

1 (phonetic) may have had one earlier. I'm going
2 to go ahead and un-mute him and see if he still
3 has a comment or not.

4 COMMITTEE MEMBER SCOTT: Mr. Menjivar,
5 are you there? Would you like to make a comment?
6 Okay. I'm going to take that as a no.

7 So any folks from the public on the WebEx
8 who would like to make a comment, now is your
9 chance. Going once?

10 MR. REGNIER: I'm going to go ahead and
11 un-mute everybody and see what happens.

12 COMMITTEE MEMBER SCOTT: Okay. You
13 ready? Everyone is un-muted, so going once,
14 going twice.

15 ((Colloquy))

16 COMMITTEE MEMBER SCOTT: Okay.

17 MR. REGNIER: All right.

18 COMMITTEE MEMBER SCOTT: Going three
19 times. I'm going to, since no one spoke up, I am
20 going to take it that there are no folks --

21 MR. REGNIER: I'll be muting that.

22 COMMITTEE MEMBER SCOTT: Yes, please.

23 COMMITTEE MEMBER SHEARS: This is a great
24 way of listening in on other people's
25 conversations.

1 COMMITTEE MEMBER SCOTT: Right?

2 Absolutely.

3 (Colloquy)

4 COMMITTEE MEMBER SCOTT: Give us just a
5 second to re-mute them, and then we'll wrap up
6 our meeting.

7 (Colloquy)

8 COMMITTEE MEMBER SHEARS: This sounds
9 fascinating. Don't mute.

10 MR. REGNIER: I think it finally kicked
11 in.

12 COMMITTEE MEMBER SCOTT: I think we got
13 it.

14 MR. REGNIER: Yeah.

15 COMMITTEE MEMBER SCOTT: Okay. Yes, if
16 any Advisory Committee Members would like to make
17 a final comment or remark, please go ahead and do
18 so. I think Bonnie had one that she would like
19 to make.

20 COMMITTEE MEMBER HOLMES-GEN: I would
21 like to make a remark. And I would just like to
22 say, again, I think that it would be really
23 helpful to take on this issue of trying to map
24 out a little more what the obstacles are in the
25 medium -- especially the heavy-duty zero-emission

1 category. This is very important for our air
2 quality goals, very important for our greenhouse
3 gas efforts, very important for the black carbon
4 reduction, that we move beyond conventional
5 technologies and that we move to zero emission.
6 And there are obstacles, clearly. And that's what
7 this whole program is geared to address, it's to
8 try to break down and break through these
9 barriers and move us to the next step. And
10 there, you know, there are -- there is a
11 migration of technology.

12 I think it was kind of generally
13 discussed that there's way to move forward and to
14 get ready to take the next step. And I think it
15 would be helpful to map that out a little more
16 from the Energy Commission perspective. How do
17 we break through the obstacles and move as
18 quickly as possible, move those transition points
19 closer so that we can meet the goals of getting
20 to our 40 percent reduction in GHG by 2030 and do
21 as much as we need to do in the transportation
22 sector to transition that to zero emission.

23 And I'm mentioning this, you know, we
24 did -- at the Lung Association, we did a report.
25 And I think I've mentioned it before. We just

1 did it in the fall. And we did it over a year
2 but we released it in the fall, and it was
3 focused on the health benefits of a transition to
4 zero-emission vehicles. Now in this case we had
5 to focus on the light-duty sector because that
6 was where we were able to generate and quantify
7 the information regarding the reductions in
8 hospitalizations and asthma attacks and the
9 reductions in premature deaths that we could tie
10 directly to the emission benefits in moving to
11 zero emission.

12 So we did that in the light-duty sector
13 and we found tremendous benefits, you know,
14 billions of dollars of health benefit from moving
15 to largely a zero-emission transportation system
16 in California. And we know that the benefits
17 that we found would be, you know, many, many
18 times greater if we could do this kind of
19 transition in the heavy-duty sector. We were
20 looking at something like \$15 billion in
21 benefits. And we could double, triple, or I
22 don't know, we could do so much more by bringing
23 along the heavy-duty sector.

24 So we're very interested in this. And I
25 think it matches up with the goals of this fund

1 and the challenge that CEC is trying to grapple
2 with in this program. So I wanted to make that
3 comment in closing.

4 COMMITTEE MEMBER SCOTT: Thank you.

5 Any other Advisory Committee Members who
6 would like to make a closing comment?

7 COMMITTEE MEMBER SHEARS: John Shears.

8 I've got to rush off right after these, my final
9 comments for the day.

10 Thanks again to the staff and the
11 Commissioners for the fantastic job of stitching
12 together a program that, you know, I have to say
13 at every Advisory Committee meeting puts together
14 everything, including the kitchen sink, and doing
15 a successful and excellent job at meeting and
16 addressing all of the tensions, given all the
17 demands that the program is facing. So thanks a
18 lot.

19 COMMITTEE MEMBER SCOTT: Thank you.

20 Any other Advisory Committee Members with
21 closing remarks?

22 COMMITTEE MEMBER HOLMES-GEN: Thank you.

23 We don't want to overlook the thank yous.

24 COMMITTEE MEMBER SCOTT: So this is Janea
25 Scott.

1 Let me just -- Bonnie, I think you raised
2 this, and Sekita did, as well, I really hope that
3 our Advisory Committee Members, and also our
4 members of the public, will think through the
5 question on environmental equity that Jacob asked
6 as part of his presentation, which is something
7 that, obviously, all of us at the Energy
8 Commission are always striving to improve, to
9 better on, and that is how can the Energy
10 Commission better ensure the equitable
11 distribution of environmental and economic
12 benefits from ARFVTP projects? So please do take
13 time to think about that and let us know.

14 I want to say thank you so much to all of
15 our Advisory Committee Members for spending your
16 day with us, lending us your knowledge and
17 expertise. It's invaluable. We really appreciate
18 it here.

19 And I want to say thank you to our
20 members of the public for participating with us
21 today.

22 A huge thank you to the San Joaquin
23 Valley Air Pollution Control District for hosting
24 us. We're so delighted to be here in Fresno. We
25 really appreciate the opportunity and ability to

1 be able to have one of our ARFVTP Advisory
2 Committee meetings here in the valley.

3 And then of course, as always, thank you
4 to Marlee, our Court Reporter, and Justin for
5 running the WebEx, and Ari on the IT.

6 And we couldn't go without thanking
7 Jacob, who does a fantastic job of putting this
8 all together, listening really closely, getting
9 all of your comments, making sure that they get
10 reflected back into the report, and just putting
11 together what I think is a very robust, really
12 solid and decent Investment Plan.

13 So, Jacob, thank you so much for your
14 leadership in that area.

15 And with that, we are adjourned for
16 the day.

17 (The meeting adjourned at 3:15 p.m.)

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CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 2nd day of March, 2017.



MARTHA L. NELSON, CERT**367

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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 7th day of March, 2017.



MARTHA L. NELSON, CERT**367