

DOCKETED	
Docket Number:	19-ALT-01
Project Title:	2020-2021 Investment Plan Update for the Clean Transportation Program
TN #:	232456
Document Title:	Transcript of 03-03-20 Advisory Committee Meeting
Description:	N/A
Filer:	Cody Goldthrite
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	3/18/2020 10:55:50 AM
Docketed Date:	3/18/2020

CALIFORNIA ENERGY COMMISSION

CLEAN TRANSPORTATION PROGRAM
ADVISORY COMMITTEE MEETING

In the Matter of:)	Docket No. 19-ALT-1
)	
)	
)	Clean Transportation Program
2020-2021 Investment Plan)	Advisory Committee Meeting
Update)	Re: Clean Transportation
_____)	Program

NOTICE OF ADVISORY COMMITTEE MEETING

CALIFORNIA ENERGY COMMISSION
 THE WARREN-ALQUIST STATE ENERGY BUILDING
 ART ROSENFELD HEARING ROOM - FIRST FLOOR
 1516 NINTH STREET
 SACRAMENTO, CALIFORNIA 95814

TUESDAY, MARCH 3, 2020

10:00 A.M.

Reported By:
Susan Palmer

APPEARANCES

COMMISSIONER:

Patricia Monahan, CEC Commissioner

GOVERNOR'S OFFICE

Tyson Eckerle, Governor's Office of Business and Economic Development

ADVISORY COMMITTEE MEMBERS:

Michael Pimente, California Transit Association
 Larry Engelbrecht, Engelbrecht Consulting
 Patricio Portillo, Natural Resources Defense Council
 Steven Cliff, California Air Resources Board
 Casey Gallagher California Labor Federation
 Morgan Caswell, Port of Long Beach
 Russell Teall, Private Citizen
 Jerome Carman, Schatz Energy Research Center/Humboldt State University
 Eileen Tutt, California Electric Transportation Coalition
 David Modisette, Modisette & Associates
 Rey León, The Latino Equity Advocacy and Policy Institute
 Mary Solecki, AJW, Inc.
 Alfred Artis, Consumer Reports
 Sandy Naranjo, Mothers Out Front
 Peter Cooper, California Employment Training Panel
 William Barrett, American Lung Association in California
 Bill Elrick, California Fuel Cell Partnership
 Matt Gregori, Southern California Gas Company
 Katherine Garcia, Sierra Club California
 Jimmy O'Dea, Union of Concerned Scientists
 Lori Pepper, California State Transportation Agency
 Tracy Stanhoff, American Indian Chamber of Commerce of California
 Daryl Lambert, Rising Sun Center for Opportunity
 Bill Magavern, Coalition for Clean Air
 Zac Thompson, East Bay Community Energy

APPEARANCES (Cont.)

ADVISORY COMMITTEE MEMBERS: (Cont.)

Ruben Aronin, Better World Group
 Jose Tengco, BlueGreen Alliance
 Jose Lopez, Private citizen
 Richard Schorske, Zero Net Energy Alliance
 *Lucas Zucker Central Coast Alliance United for a
 Sustainable Economy
 Leslie Aguayo, Greenlining Institute
 Kevin Hamilton, Central California Asthma Collaborative
 *Heidi Sickler, Silicon Valley Leadership Group
 Robert Meyer for Peter Cooper, California Employment
 Training Panel

CEC STAFF:

Patrick Brecht, Clean Transportation Program Investment
 Plan
 Kevin Barker, Fuels and Transportation Division
 Charles Smith, Fuels and Transportation Division
 Claire Sweeney
 Tim Olsen

PRESENTERS:

Patrick Brecht, 2020-2023 Investment Plan for the Clean
 Transportation Program
 Jennifer Allen, Fuels and Transportation Division
 Esther Odufuwa, Fuels and Transportation Division
 Phil Cazal, Fuels and Transportation Division
 Andrew Hom, Fuels and Transportation Division
 Larry Rillera, Fuels and Transportation Division

PUBLIC COMMENT:

Jaimie Levin, Center for Transportation and the Environment
 *Jennifer Case, New Leaf Biofuel
 *Eleni Petrow, Self
 *James Dumont, Momentum
 Reed Wildman, Self
 *Mark Roest, Self

I N D E X

	<u>Page</u>
1) Introductions and Opening Remarks	5
2) Presentation by CEC staff on the Clean Transportation Program, including proposed allocations included in the staff draft version of the 2020-2023 Investment Plan	
Patrick Brecht	17
Jennifer Allen	89
Esther Odufuwa	91
Phil Cazal	96
Andrew Hom	102
Larry Rillera	105
3) Advisory Committee discussion on the 2020-2023 Investment Plan	29, 108
4) Public Comments	182
Adjourn	196
Court Reporter's Certification	197
Transcriber's Certification	198

P R O C E E D I N G S

MARCH 3, 2020

10:05 a.m.

MR. BRECHT: Hello. Good morning. Good morning everyone, my name is Patrick. Well, first of all I should say good morning to everyone here in the room, thanks for coming. And thanks to everyone who is joining us on WebEx. My name is Patrick Brecht and I'm the Project Manager for the 2020-2023 Investment Plan for the Clean Transportation Program. Anyway, I wanted to thank all of you for being here today. And I want to thank our new and returning Advisory Committee members and I will have some introductions in just a few minutes.

I just need to go over a few housekeeping rules or items first. The workshop is being recorded and transcripts will be available on the Energy Commission website. The restrooms and drinking fountains are located out at the main door here and just across to the left and there are vending machines just up the stairs in the second-floor atrium.

And finally, in the unlikely event of an emergency in which we need to evacuate the building please calmly and quickly follow Energy Commission staff -- yeah, staff employees I should say, Energy Commission employees - - to the appropriate exits. We will reconvene at Roosevelt Park, which is across from us here located diagonally.

1 At this point I'd like to turn over to our
2 Presiding Member of the Clean Transportation Program Policy
3 Committee Patty Monahan for introductions and opening
4 remarks.

5 COMMISSIONER MONAHAN: Well, good morning
6 everybody. I am so excited to see new faces and old
7 friends as well. This is, as you all know we have
8 refreshed the Advisory Committee. And we really tried hard
9 to make sure that we were attentive to all the diverse
10 stakeholders that we want to hear from as we figure out how
11 to spend close to \$100 million per year to advance clean
12 transportation in California.

13 And one of the areas that we were particularly
14 excited to expand the Advisory Committee to include are
15 community-based organizations. And we heard loud and clear
16 from the Disadvantaged Communities Advisory Group that we
17 needed to diversify. And that we need to think just more
18 deeply about how we can use our investments to make sure
19 that everybody benefits from clean transportation, not just
20 people who can afford to buy brand-new personal cars. And
21 so that's one of our key areas of emphasis going forward is
22 equity, diversification, making sure that everybody
23 benefits especially as we move towards an electric
24 transportation future.

25 For the first time this Advisory Committee is

1 going to be informing us about a multiyear Investment Plan.
2 So generally we publish an Investment Plan every single
3 year, convene the Advisory Committee, go through kind of a
4 laborious process. And this year for the first time we
5 thought, "Well let's provide a little bit more market
6 certainty going forward." And so I would say this
7 Investment Plan compared to past years is going to be more
8 important for setting this multiyear direction.

9 And we want to get feedback from you all about
10 whether a multiyear direction makes sense. Like we're
11 thinking, "Oh, this makes a lot of sense for the State of
12 California," but we want to hear from you about what your
13 opinions are about the pros and cons of that as well.

14 I want to make sure that we are as a group
15 listening to each other, that we have a place where
16 everyone's opinion is valued and matters and where we
17 listen respectfully to what others are saying. I think
18 we're not always going to agree about what we need at the
19 end of the day, but we need to be able to listen to each
20 other, adhere and adjust as we do.

21 I thought it would be helpful if we went around
22 really quickly to say who we are, what organization we
23 represent. And we have an icebreaker, so the icebreaker is
24 -- and you can only do this in one sentence, so start
25 thinking about what your one sentence is -- what your birth

1 order is and what you think that means for how you show up
2 in a group. So I'll start.

3 Did you get that? I'll say it again, your birth
4 order in your family, so were you the only child or are you
5 one of six? Where are you in the family hierarchy and what
6 that means when you show up in a group or in a work setting
7 like this?

8 So I'll start just to make it easy for you. My
9 name is Patty Monahan. I work at the California Energy
10 Commission. I'm a new Commissioner and my one sentence is
11 I am the youngest of seven, which means I'm very
12 comfortable in large groups and I use humor and threats and
13 whatever it takes to come to a resolution at the end of the
14 day. And we're going to go around with Energy Commission
15 staff as well, but it really -- one sentence, people, so
16 really don't give us a paragraph.

17 MR. BRECHT: And your microphones have this
18 little button there to turn on and off if you would like to
19 speak.

20 MR. BARKER: Hi, Kevin Barker. I'm the Deputy
21 Director for the Fuels and Transportation Division. I am
22 the second of two, and that means I show up always wanting
23 to prove that I can do something, just do it.

24 MR. SMITH: Hello. My name is Charles Smith.
25 I'm the Office Manager in the Fuels and Transportation

1 Division. I was born two years after my parents had a cat
2 that they dressed and clothed, and I'm not sure what that
3 says about me.

4 MR. BRECHT: Again, my name is Patrick Brecht. I
5 am the second child. I have an older sister and she had
6 the pleasure of dressing me up in dresses and taking
7 pictures, so I have a lot of pictures of me in dresses.

8 MR. PIMENTEL: Hi all, I'm Michael Pimentel with
9 the California Transit Association. And I am a middle
10 child, but I was bumped from my throne as a middle child by
11 my little brother who was born 18 years after me. I think
12 what that all means is that I'm comfortable with changing
13 dynamics, willing to compromise, and be supportive of
14 others in a group.

15 MR. ENGELBRECHT: Hello, I'm Larry Engelbrecht.
16 The list has me as LA Community College District. I'm
17 actually a contracted educational consultant and evaluation
18 team leader for ASE Ed Foundation and NATEF. I am the
19 first of two children and because I was always responsible
20 for getting my sister to various things on time I learned
21 to be prompt and on time.

22 MR. PORTILLO: Good morning, everyone. My name
23 is Patricio Portillo with the Natural Resources Defense
24 Council. I am the oldest of four, so I think I like to
25 look out for everybody else. I think that's my role in the

1 group.

2 MR. CLIFF: Steve Cliff from the California Air
3 Resources Board. I am the youngest of three. I have two
4 older sisters, so I think that means I'm comfortable
5 getting bossed around.

6 MR. GALLAGHER: Casey Gallagher, California Labor
7 Federation, AFL-CIO, Workforce and Economic Development
8 Department. I'm the youngest of two and I guess to torment
9 and live the experience. I guess that leaves me to look
10 out for the little guy.

11 MS. CASWELL: All right. My name is Morgan
12 Caswell. I work for the Port of Long Beach. I am the
13 youngest of three and my two older sisters are twins, so I
14 am used to being wrong not once but twice. So I know how
15 to pick my battles.

16 MR. TEALL: My name is Russ Teall. I am the
17 oldest of four.

18 COMMISSIONER MONAHAN: Oh Russ, say what
19 organization you represent.

20 MR. TEALL: Recreational Boaters, so I was the
21 former president of the National Boat Owners Association.
22 So I was always amazed at how easy my parents were on my
23 youngest brother versus me.

24 MR. CARMAN: Hi. My name is Jerome Carman with
25 the Schatz Energy Research Center at Humboldt State

1 University. I'm the oldest of one and I think I'm
2 constantly trying to undo being spoiled.

3 MS. TUTT: Hi, I'm Eileen Tutt. I'm with the
4 California Electric Transportation Coalition. I am the
5 oldest of four and I think I come to this table with a
6 great ability to manage constant chaos.

7 MR. MODISETTE: Hi. I'm David Modisette. I'm a
8 private consultant. I'm the first of two children although
9 my sister is eight years younger than I am, so I guess I'm
10 used to getting my way.

11 MR. LEON: Rey Leon, youngest of seven and the
12 seventh son. I guess I observed a lot from my siblings
13 working in the field, but by the time it came to me I
14 worked in the family restaurant. So I feel I've been
15 serving my people my whole life. Thank you.

16 COMMISSIONER MONAHAN: What organization do you
17 represent?

18 MR. LEON: I'm with the Mayor of the City of
19 Huron. Also Executive Director and Founder of the Latino
20 Equity Advocacy & Policy Institute, the LEAP Institute to
21 make it quick.

22 MS. SOLECKI: Hi. Mary Solecki. I'm with AJW a
23 consulting firm, and we have different renewable fuel and
24 vehicle technology clients. I am a child too, of two, and
25 I have learned to manage upward.

1 MR. ARTIS: Hello. I'm Alfred Artis with
2 Consumer Reports. And I'm a second of two and so I've
3 learned how to cover up for other people's mistakes.

4 MS. NARANJO: Hello, good morning everyone. My
5 name is Sandy Naranjo. I'm with Mothers Out Front. I'm
6 the youngest of three, with my brother and I having a
7 pretty wide age gap. So I have two nephews that I consider
8 my brothers, so I'm used to being around love and having a
9 crazy household. So I could handle anything.

10 MR. COOPER: Good morning, my name is Peter
11 Cooper. I'm the Assistant Director at the California
12 Employment Training Panel. I'm the fourth son and so I'm
13 used to taking on challenges, especially when it has to do
14 with food like Twinkies.

15 MR. BARRETT: Hi. Will Barrett with the American
16 Lung Association. I'm third of four, and that tends to
17 mean that I was in mostly an observational role for the
18 rest of the sociology project in my house. And unlike
19 normally, I'd usually sit on the corner of the table.

20 MR. ELRICK: Bill Elrick, Executive Director of
21 the California Fuel Cell Partnership. I'm the oldest of
22 two and my sister is a quiet but strong personality, so I
23 think I've learned to be adaptable to lead or follow or
24 anything in between.

25 MR. GREGORI: Good morning. My name is Matt

1 Gregori. I represent SoCalGas today. I am the middle of
2 three boys, so I tend to stay quiet until the time is right
3 and then I will strike with ferocity.

4 MS. GARCIA: Hi, I'm Katherine Garcia with Sierra
5 Club California. I'm an only child and so I'm used to
6 coming into situations bringing people together and being
7 social and making new friends.

8 MR. O'DEA: Jimmy O'Dea, I'm a Senior Analyst at
9 the Union of Concerned Scientists. Second of five, and I'm
10 comfortable with something always going on in the house.

11 MS. PEPPER: Good morning. Lori Pepper, I'm the
12 Deputy Secretary for Innovative Mobility Solutions at the
13 California State Transportation Agency. I am technically
14 an only child although my mother on many occasions felt
15 like she had two children, myself and my father. So feel I
16 got the best of both worlds and really growing up tried to
17 disprove all those stereotypes of only children.

18 MS. STANHOFF: Good morning. I'm Tracy Stanhoff.
19 I'm with the American Indian Chamber of Commerce. I'm the
20 middle child of five children, so I kind of just go with
21 the flow. But I'm Prairie Band Potawatomi and we're a very
22 matrilineal society, so I'm a former chairperson of that
23 and so it tells you kind of where we are in the family.
24 We're four girls and we're all the bosses for our older
25 brother.

1 MR. LAMBERT: Good morning, everybody. My name
2 is Daryl Lambert. I work with Rising Sun Center for
3 Opportunity. I am the youngest of five, much younger. My
4 oldest brother is 18 years older than me, so Mr. Pimentel I
5 hope your younger brother would say the same, but as a
6 result of that I deeply respect to live the experiences of
7 others.

8 MR. MAGAVERN: Good morning, Bill Magavern with
9 the Coalition for Clean Air. I'm the second of four, so I
10 learned how to thrive without getting much attention, and
11 also learned the importance of getting to the food while
12 it's still there.

13 MR. THOMPSON: I'm Zac Thompson. I'm with East
14 Bay Community Energy. It's the CCA for Alameda County.
15 And I am the youngest of three boys and although I always
16 felt like I was more of a middleman, literally middle, I
17 had to be in the middle of my two older brothers that were
18 constantly fighting.

19 MR. ARONIN: Good morning. I'm Ruben Aronin with
20 the Better World Group. We're a consultant group that
21 works with environmental advocates and transit agencies in
22 Southern California and statewide. I'm one of two, but I
23 learned that beating people up didn't get me too far in
24 life, so I've turned into more of a peacemaker now.

25 MR. TENGCO: Good morning. My name is JB Tengco.

1 I'm with the BlueGreen Alliance. I'm first of four so I'm
2 used to sort of just jumping in and seeing where it goes.

3 MR. LOPEZ: Good morning everybody. My name is
4 Jose Lopez. I am the fourth of six and I'm used to
5 handling a lot of pressure. And today I'm representing
6 Communities for a Better Environment and Urban Habitat.

7 MR. ECKERLE: I'm Tyson Eckerle with GO-Biz, the
8 Governor's Office of Business and Economic Development.
9 And I am the oldest and my sister is nine years younger.
10 And I think by the time she came around I was more of a
11 babysitter.

12 MR. SCHORSKE: Hi everyone. I'm Richard Schorske
13 with the ZNE Alliance and the EV Alliance. I am the fifth
14 of five and I think I get to notice everybody carefully and
15 then make sure I get at least a little bit of attention at
16 the end. Thank you, and this is the end.

17 COMMISSIONER MONAHAN: I just want to thank
18 everybody. That was great and it was so fast, so kudos to
19 all of you for really, really jumping in. And we're ahead
20 of schedule, which is always nice.

21 I want to say before we begin that Charles is
22 going to walk us through, or actually Patrick is going to
23 walk us through the agenda. And we'll start the actual
24 discussion of what we've put into our Draft Investment
25 Plan. But I want to say that at lunch if anybody is really

1 spatially oriented and can figure out a better
2 configuration for these tables we'll give you a little
3 prize, all right? So anybody who is really good at that
4 let me know.

5 Oh, hang on one second, because we forgot that
6 there may be Advisory Committee members on the WebEx. So
7 can we check to see if there's anybody on the WebEx who's
8 on the Advisory Committee?

9 MR. ZUCKER: Am I unmuted now? Oh, great.
10 Everyone, my name is Lucas Zucker. I'm the Policy Director
11 at CAUSE, which is a social, economic and environmental
12 justice organization in the central coast of California.
13 Sorry I'm not able to be there today. Today is Election
14 Day and we do a lot of work to get out the votes, so I'll
15 be out canvassing today after this meeting is over. But
16 I'm sorry I can't see you all and you can't see my face,
17 but I am glad to be here.

18 I am the oldest of two with a single mom. And so
19 I guess that means that I'm used to taking responsibility
20 and taking blame for stuff. And I would say I think the
21 growth order probably fills up less than how people show up
22 in rooms like this than kind of the bigger social dynamics
23 of race and class and gender and age. And so I'd just
24 encourage everyone to be mindful of that as well.

25 MR. BRECHT: Okay. I'll start providing the

1 overview of the program in the Investment Plan followed by
2 the Advisory Committee discussion as mentioned.

3 This will be followed by staff presentations on
4 program funding areas with Advisory Committee discussions
5 on each of the funding areas.

6 We will also take public comments after the
7 Advisory Committee discussion. And since we have a lot to
8 cover today we, and many interested stakeholders are
9 present, we request that public comments are kept to two
10 minutes or less.

11 If you would like to make a comment during the
12 public comment period please fill out a blue card and
13 provide it to Dorothy. Yep, there is Dorothy over there.
14 And please specify on the blue card what subject you would
15 like to speak on. And if you're participating by WebEx we
16 would like you to comment please, and if you would like to
17 comment, please use your "raise hand" feature. When we
18 reach the public comment period we will call your name to
19 speak and unmute you during the public comment period.

20 The Clean Transportation Program was established
21 by California Assembly Bill 118 in the year 2007. The
22 program is funded through a small surcharge on California
23 vehicle registrations, which gives us a budget of up to
24 \$100 million per year. California Assembly Bill 8 extended
25 the program to January 1st, 2024. The program was

1 developed to provide funding support for projects that
2 reduce greenhouse gas emissions within the transportation
3 sector, which account for roughly 50 percent of state
4 greenhouse gas emissions. The projects we fund also
5 contribute to other complementary state goals. Included
6 are improved air quality, providing investments in low-
7 income and disadvantaged communities, economic development
8 and reduce petroleum dependence.

9 Today we're here to talk about the staff draft of
10 the 2024 -- excuse me -- 2023 Investment Plan for the Clean
11 Transportation Program. This document is updated annually.
12 It serves as the basis for the program's funding
13 opportunities for each fiscal year. The Investment Plan
14 lays out how the coming fiscal years' funds will be
15 allocated across different categories such as
16 infrastructure, fuels, technologies and supporting
17 elements. The allocations reflect considerations of state
18 and federal policies and regulations as well as
19 coordination with other state agencies.

20 The document is vetted through a public review
21 process that involves multiple iterations of the document
22 in meetings with the Advisory Committee, one of which we're
23 holding today.

24 And finally, the Investment Plan sets allocations
25 for various funding categories and not individual projects.

1 There are a couple of new approaches within this
2 year's Investment Plan and we touched on that earlier and
3 it's worth calling out. First we've endeavored to broaden
4 and diversify the Clean Transportation Program's Advisory
5 Committee to better reflect California communities and
6 provide increased representation of program beneficiaries,
7 environmental justice communities, rural communities,
8 tribes and others.

9 The plan now contains multiyear funding
10 projections providing funding projections for three-and-a-
11 half years, the remainder of our program, to base long-term
12 and transformative goals, conveys funding certainty and
13 provides transparency. We also try to make the documents
14 more approachable.

15 The CEC released the Draft Staff Report just
16 yesterday, March 2nd. We're holding our first Advisory
17 Committee meeting today. Once we've incorporated feedback
18 from this Advisory Committee meeting and reviewed all
19 comments on the docket we then have an anticipated release
20 of the Lead Commissioner Report in April. Followed by a
21 second Advisory Committee meeting probably in May, the date
22 and location of the meeting is still being determined. We
23 then plan on bringing the Investment Plan Update to the CEC
24 business meeting for approval in June.

25 Today the Energy Commission has provided over

1 \$865 million in funding through the Clean Transportation
2 Program. This chart captures the total amount of funding
3 allocated to various fuel types. A little over 20 percent
4 has gone into biofuel production and distribution projects
5 including biomethane, ethanol and diesel substitutes. Over
6 a third has gone toward electric vehicle charging
7 infrastructure, EV demonstrations and incentives and EV
8 related manufacturing projects; 16 percent to hydrogen
9 refueling infrastructure and vehicle demonstrations;
10 another 13 percent for natural gas refueling -- excuse me -
11 - natural gas fueling infrastructure and vehicles. And the
12 remaining 15 percent to projects that either incorporate
13 multiple fuel types or do not address specific fuel types,
14 such as regional readiness planning or workforce training.

15 Looking at this graph shows the funds'
16 distribution geographically. And you can see the program
17 had distributed funding throughout the state with extra
18 focus on areas with acute air quality needs, such as San
19 Joaquin and the South Coast.

20 Finally, this chart shows program funds that have
21 been awarded to projects located within disadvantaged
22 and/or low-income communities, around 36 percent. When
23 excluding projects that occurred statewide or without
24 applicable site addresses this funding share is closer to
25 50 percent.

1 The CEC's implementation of the Clean
2 Transportation Program reflects the effect of numerous
3 policies and goals by legislation, regulation and executive
4 order. The net results of these policies have been to
5 steer our program towards zero and near-zero fuels and
6 technologies. Such policies include achieving 100 percent
7 zero-carbon electricity as well as carbon neutrality by
8 2045, by 2031 achieving 80 percent reduction in smog-
9 forming NOx and reaching 1.5 million zero emission
10 vehicles, or ZEVs by 2025 and 5 million ZEVs by 2030 and by
11 2025 having 250,000 electric vehicle chargers and 200
12 hydrogen refueling stations to support those ZEVs.

13 Our funding allocations are also informed by
14 vehicle and fuel regulations developed by the California
15 Air Resources Board, or CARB. These include the ZEV
16 regulation for passenger vehicles, which requires auto
17 manufacturers to offer for sale specific numbers of the
18 cleanest cars available including full-battery electric
19 vehicles, hydrogen fuel-cell electric vehicles and plug-in
20 hybrid electric vehicles.

21 Shifting to heavy-duty vehicles the Innovative
22 Clean Transit Regulation sets milestones for all public
23 transit agencies to transition toward a 100 percent zero
24 emission bus fleet. Beginning in 2029 any new buses must
25 be zero-emission buses. And by 2040 all buses in operation

1 must be zero emission.

2 The Advanced Clean Truck Regulation, still under
3 development, would require manufacturers to generate or
4 procure ZEV credits beginning in 2024 and increasing
5 through 2030.

6 Finally, the Low Carbon Fuel Standard requires a
7 20% reduction in overall transportation fuel carbon
8 intensity by 2030. And at the start of this year the
9 credit prices for low carbon fuel providers were reaching
10 new highs near 200 per metric ton of CO2.

11 A vital step in developing the Clean
12 Transportation Program Investment Plan is to coordinate
13 with other state funding programs. First, we have CARB who
14 administers low-carbon transportation incentives focus on
15 vehicles. For the current fiscal year CARB approved a
16 funding plan that includes \$238 million for light-duty ZEVs
17 under the Clean Vehicle Rebate Project, \$182 million for
18 clean truck, buses, and off-road freight vehicles, \$65
19 million toward clean transportation equity projects and \$48
20 million per truck loan assistant programs.

21 The CEC must also consider major settlement
22 agreements. For instance, under the Volkswagen Diesel
23 Emission Settlement, Volkswagen has committed 800 million
24 via Electrify America toward ZEVs and ZEV infrastructure
25 within California. Separately an agreement with NRG

1 requires the investments of just over \$100 million to
2 install electric vehicle charging infrastructure across the
3 state.

4 Lastly the CEC must also plan its ZEV
5 infrastructure investments with regard to investments of
6 major investor-owned utilities. In 2014 the California
7 Public Utilities Commission, or the CPUC adopted a decision
8 allowing consideration of utility ownership of electric
9 vehicle charging stations and infrastructure on a case
10 specific basis. Subsequently the CPUC approved the
11 Infrastructure Pilot Program for the Pacific Gas and
12 Electric Company, San Diego Gas and Electric Company and
13 Southern California Edison to install 7,500; 3,500; and
14 1,500 charging stations respectively.

15 In considering the availability of funding for
16 ZEVs and ZEV infrastructure, this graph shows some of the
17 progress we've made. The key takeaway is that we are
18 reasonably on track to reach our 1.5 million ZEV target by
19 2025 with approximately 700,000 ZEV sales to date.
20 However, our installed infrastructure has not kept pace
21 whether in terms of charging infrastructure or hydrogen
22 refueling stations. Without adequate charging and
23 refueling opportunities the state risks losing momentum
24 towards its long-term goal, including 5 million ZEVs by
25 2030 and full decarbonization by 2045.

1 With all this in mind we are proposing four key
2 priorities to guide our Investment Plan allocations.

3 First, we anticipate that within the area of zero-emission
4 vehicles CARB will continue to lead on funding for vehicle
5 incentives while our program focuses more on recharging and
6 refueling infrastructure in addition to other priority
7 needs.

8 Second, within the area of ZEV infrastructure we
9 are proposing an early focus on light-duty passenger
10 vehicle needs. This is intended to help mirror the
11 charging cap anticipated by 2025. As depicted in the
12 previous slide it is vital to ensure the public adoption of
13 ZEVs is not stymied by lack of infrastructure. We expect
14 to follow this and long-term focus of ZEV infrastructure
15 for trucks, buses and off-road equipment.

16 In preparing for these investments, staff will
17 benefit from the inaugural charging infrastructure
18 assessment from AB 2127 of 2018. Previous charging
19 assessments were focused exclusively on light-duty
20 vehicles. However, estimating the charging needs for
21 medium and heavy-duty vehicles will be a key area of our
22 analysis or the analysis.

23 Third, we are interested in providing funding
24 into projects that can help overcome barriers associated
25 with zero, near-zero and zero-emission fuels

1 commercialization.

2 And finally we are seeking to prioritize our
3 investments into project types that provide direct benefits
4 toward disadvantaged communities as well as project types
5 that can support the state's workforce and economic
6 development.

7 This slide shows that we are proposing to
8 translate the aforementioned funding priorities into real
9 funding allocations. The table shows a proposed funding
10 allocations table for fiscal year 2020 to 2021 as well as
11 the proposed funding for the next two-and-a-half years.

12 As mentioned we are proposing to make big
13 contributions toward reducing our light-duty vehicle
14 charging infrastructure gap with the upcoming fiscal year
15 while future fiscal years would focus more on funding
16 toward medium and heavy-duty ZEVs and ZEV infrastructure.
17 Allocations for hydrogen refueling infrastructure and zero
18 and near zero-fuel production and supply would remain
19 steady over time.

20 Finally, our allocations for ZEV and ZEV
21 infrastructure manufacturing and workforce development
22 would alternate in each fiscal year with the shared aims of
23 supporting in-state economic development, hastening ZEV
24 adoption.

25 And to end here we have some key questions to ask

1 you. In the afternoon you will hear more examples of the
2 kind of projects we fund, or we might fund out of the
3 categories. However, we wanted to provide a few questions
4 for your initial consideration. First, is there additional
5 context that we should factor into decision-making
6 priorities? Second, do we have the right program funding
7 priorities: ZEV, ZEV infrastructure, near zero and zero-
8 emission fuels inequity? Are we missing any important
9 activities? How should we approach the new concept of
10 multiyear funding allocations?

11 And for your reference we have provided a pie
12 chart that depicts the combined three-and-a-half years of
13 funding for the proposed funding allocation.

14 COMMISSIONER MONAHAN: So I want to just
15 recognize that we're asking a lot of you in terms of like
16 right off the bat to give us some sense of are these big
17 allocations right? So there will be time. We're going to
18 dive deep into each individual category of activity, so
19 there is time to give us input into what should we do on
20 light-duty vehicles? What should we do on heavy-duty? And
21 I think we can think about at the very end to maybe come
22 back to this big question, are we missing anything?

23 But we wanted to lay out for you just the big
24 context setting that we used to put out these draft
25 allocations. And to get your initial sense of like well

1 what else should we be thinking about as we develop our
2 Investment Plan for the coming years? And in general are
3 these the right activities? Are we missing anything big
4 that you think, "Oh we should be really thinking about
5 this"?

6 And what I would recommend is as you give us
7 feedback don't get too granular. Don't be like oh, it
8 should be .3 and not .4 whatever million dollars. But just
9 the big categories around are these the right sort of big
10 suite of activities? And we'd love just to get your
11 general reactions to this.

12 We have time until -- we've had a lot of time for
13 comments. And we structured the agenda purposely, so that
14 we would talk less, and you would have the opportunity to
15 talk more. And I want to recognize everyone who is coming
16 at this from a different level of familiarity with this
17 program. Some groups have done this for a long time and
18 they know. Others are coming in here cold. They don't
19 know. So what I would say for the folks that are coming in
20 cold trust your instincts around what are the big things
21 that you want to communicate to us from your on-the-ground
22 experience in communities. And we welcome that, that
23 feedback.

24 And we didn't want to inundate folks with a lot
25 of data. We actually struggled a lot with the agenda.

1 Like should we put a lot of PowerPoint slides up here and
2 make you watch us and listen? I worried that I know
3 personally I fall asleep, I don't pay attention, I'm on my
4 phone, the more data I'm given the harder it is actually to
5 listen. And our goal is really to listen to you. And so
6 that's why we structured the agenda the way we did. We'll
7 see how this works out and maybe we'll revise going
8 forward, but we purposely structured the agenda, so that
9 you would have more time to talk. We would have more time
10 to listen and we tried not to get too data-heavy.

11 I want to make sure everybody has the slides on
12 the table, because I think it will be easier to think about
13 your comments if you can look at the slides and kind of
14 mull them over. Yeah, so just a little bit more background
15 on why we're structuring the agenda this way.

16 And I'm going to turn it over to Kevin who is
17 going to give some information about how to make comments.

18 MR. BARKER: Great. Thanks, Commissioner.

19 So Claire if you can stand up and wave your hand,
20 so Claire Sweeney, (phonetic) everyone welcome Claire. So
21 she's not in the Fields and Transportation Division, but
22 she is shadowing us today and so all be nice to her,
23 because we want to make a good impression. Please, so
24 she'll be sort of in the middle here, if you do have a
25 comment to make please turn your name tag up like this,

1 make eye contact with her and then she'll call out your
2 name in the order that she sees your name tag go up. And
3 then we'll go from there.

4 So I see Tracy, so I'll just start it off with
5 Tracy. But then Claire, over here we've got Eileen Tutt,
6 we've got Magavern, Bill. And so we'll start with Tracy.

7 MS. STANHOFF: Thank you. In our community, the
8 American Indian community here in California, you
9 definitely have a group of haves and have-nots. And then
10 we have the rural, the reservation and the urban, suburban
11 folks. So we have a vast need in the community.

12 One of the big issues in our rural community is a
13 lot of people don't even have infrastructure, so
14 electricity is not even available for folks even in this
15 day and age. So a lot of our folks are looking at
16 microgrids and so forth to help alleviate the problem, but
17 that's really not even anywhere near the needs that we
18 have. So our feeling is a lot that our people are going to
19 get left behind in certain areas on this issue. A lot of
20 it is of course due to cost. A lot of it's due to a lack
21 of infrastructure development by major utilities. And the
22 third is because of again costs and being able to access
23 resources to be able to do that. So I like the way you're
24 approaching.

25 And then we have our urban area people who, some

1 of them are very impoverished and again are living in dense
2 populations. So the question is how are they going to get
3 access to charging stations, how are they going to get
4 access to these vehicles? I like what you said at the
5 beginning, Patty, that it's very expensive for these
6 vehicles at times and so forth and so that's a challenge
7 for us too.

8 The other thing that I wanted to make comment on
9 is a lot of the utilities are starting to use our
10 businesses in helping develop these electric charging
11 stations, so we're very appreciative of that. And that's
12 something that helps all of our community when they use our
13 businesses and we can develop a sustainable infrastructure
14 and a better, viable economy.

15 So there's just a lot of issues in our community
16 that need to be developed that surround this development
17 yet affect how this will be implemented for us. We feel
18 like most of the time we're getting left behind on a lot of
19 things, because we do not have the infrastructure
20 (indiscernible) and it's a bigger issue than just charging
21 stations for us. Thank you.

22 MR. BARKER: Claire, who is next?

23 MS. SWEENEY: Eileen.

24 MR. BARKER: Eileen Tutt.

25 MS. SWEENEY: (Indiscernible.)

1 MS. TUTT: I can use a mic, sorry, thank you.

2 Eileen Tutt with the California Electric
3 Transportation Coalition, I think kind of building off --
4 Tracy is it -- Tracy's comment I would just suggest that in
5 your renewable zero and near-zero fuels that you include
6 renewable electricity as well as renewable hydrogen. In
7 part, because I think the degree to which we are trying to
8 build out access to renewable energy in areas where there
9 is no access, I think some of this funding might be able to
10 help. So I like the idea if you're going to live in a
11 place where you don't even have access to electricity you
12 want to make sure that as that electricity is -- that
13 access is built out it's actually renewable. So I think
14 some of that funding could help with that.

15 Also just in terms of overarching, I think you
16 really have the priorities right. Particularly I really
17 appreciate the focus on equity and particularly around zero
18 emission, because I think there's this concept out there
19 that zero-emission transportation is only for wealthy
20 people. And I think we really need to change that up and
21 there's enough money here to help do that.

22 But the final thing that I would add maybe on
23 Slide 15 or maybe just as an overarching direction since we
24 did get \$51 million this year at least on the Governor's
25 Proposed Budget, so everybody in this room ought to be

1 fighting to make sure it stays in there, because that is
2 not a guaranteed. So please keep that in mind maybe as a
3 member of this organization.

4 And you might want to say something about should
5 additional funding come in, in the future where will the
6 priority be? And I would argue that much like you did this
7 year the priority should be in zero-emission infrastructure
8 or zero emission vehicle technologies or zero-emission
9 technologies and equity. So if there's additional money I
10 wouldn't necessarily put that in near-zero, but I support
11 the allocation here.

12 MR. BARKER: Thanks, Eileen. Claire?

13 MS. SWEENEY: Jerome Carman

14 MR. BARKER: Jerome Carman.

15 MR. CARMAN: Thank you. This is Jerome Carman
16 with the Schatz Energy Research Center. A few comments, I
17 guess one really quick I would like to echo what you just -
18 - Eileen?

19 MS. TUTT: Yes.

20 MR. CARMAN: -- Eileen just said regarding should
21 additional funding come available, making an indication of
22 where those priorities might lie; I think that makes a lot
23 of sense.

24 A couple of other points, high-level, regarding
25 the decision process for allocating the amount of funds to

1 infrastructure, do you have measurement verification
2 metrics for truth or ground-truthing the EVI-Pro
3 recommendations? I'm assuming EVI-Pro is a primary source
4 from where you're getting, as well as the Governor is
5 getting projections for infrastructure? So I recommend
6 thinking through those, a measurement verification for
7 that.

8 And second, do you have a strategy for minimizing
9 stranded assets? I think this goes towards an equity
10 question. If you're putting charging stations in areas
11 where people can't afford to use them -- and this is also a
12 technology obsolescence question -- so thinking through
13 steps that are needed to minimize stranded assets. Thank
14 you.

15 MR. BARKER: Bill Elrick, all right. Hey, Bill.

16 MR. ELRICK: Bill Elrick, California Fuel Cell
17 Partnership. I think generally this is a really good
18 allocation. I'm pleased to see it. Overall, looking at
19 some of the bullets on those key questions you had, I like
20 seeing the separation of heavy-duty and light-duty. While
21 you've made in, what I've gathered already in looking at
22 this plan and some of the previous stuff, the opportunity
23 to when you can leverage and co-locate when it does work.
24 But really recognizing separate pots of money, because
25 whether it's different technologies and codes and standards

1 most often exist for light-duty and heavy-duty and the
2 consumer, being it a private citizen or a fleet, the
3 operations are very different. So separating those pots I
4 think is very important.

5 To the point earlier about looking at the fuel
6 production, renewable pathways I think that's the end goal
7 we're really going to make the biggest impact. So I don't
8 know how you could put more money in this. I'm not going
9 to say pull some from the other, but I think just
10 recognizing keeping that in mind for the big energy
11 transition as well as finding more ways to leverage other
12 programs within CEC or the other state funding and how
13 those can complement each other. The EPIC program comes
14 right to mind when we look at electrification be it
15 electrons or molecules of hydrogen. Both of those are very
16 renewable pathways.

17 And then the other thing when looking at the
18 multiyear funding allocations, just speaking from what I
19 know of what you've done with hydrogen which has been
20 really strong in looking forward multiyear market-based
21 allocations, I think those are really good examples to see
22 if you can replicate throughout the program. We'll see how
23 that solicitation that's on the street now goes, but we're
24 very encouraged by that. And I think the exciting part is
25 really looking at all of this from a sustainability issue

1 meaning will these program activities continue after the
2 CEC funding is gone?

3 And so I think having some sort of market-based,
4 multi-year sustainability factors involved are really
5 important to make sure that whether it's the upfront costs
6 of private investment or that they're going to continue
7 over time, so these aren't one-and-done type of things.

8 MR. BARKER: Okay, Mary Solecki?

9 MS. SOLECKI: Hello. I'm trying to decide
10 whether to ask a question during this time as well. Okay,
11 I'll start with my comments. I agree with Bill that the
12 breaking things out into the medium and heavy-duty versus
13 the light-duty and the ZEVs, that's very helpful and I
14 think that's a very worthwhile differentiation.

15 I did want to point out within the medium and
16 heavy-duty infrastructure component that you may want to
17 consider some near-zero technologies as well. There are
18 some really great technologies that may be able to stretch
19 those dollars a lot farther and seriously reduce emissions
20 out there. And maybe impact some sectors that some of the
21 zero technologies would not be able to, so just a
22 consideration for some near-zero allocations in those areas
23 as well, or in that bucket.

24 And then to respectfully disagree with my
25 colleague Eileen on the fuel production component, I think

1 that focusing on the liquid transportation fuels in that
2 bucket is very important. There are hundreds if not
3 thousands of new vehicles that are being sold today,
4 tomorrow, the next day and those are largely running on
5 combustion fuels. Those vehicles are going to be on the
6 road for 10, 15, 20 years. We need to get them off of
7 gasoline and diesel while those cars are still running. So
8 how do we take the existing fleet and get them to utilize
9 different fuels? And I think that is what that fuels
10 bucket is trying to do is change the makeup of the liquid
11 fuels that we have. And so I think that's a very important
12 and laudable goal and so I just want to protect the space
13 for that.

14 I am going to ask my question. The gaps that
15 were identified towards the ZEV charging and the number of
16 zero-emission vehicles, Slide 13, the progress towards
17 those I guess I'm just wanting to understand. And you
18 could answer this later however it makes sense. When I
19 look at these multiyear allocations are you anticipating
20 that these gaps still exist beyond the funding that you
21 have allocated or is the funding that you've allocated
22 trying to address these gaps? Did my question make sense?

23 MR. BARKER: Yes. Hi, this is Kevin. So it
24 takes into account some of the funding identified. So we,
25 in doing the gap analysis for the current -- excuse me the

1 plan, the 124,000 K then assumes \$30 million per year are
2 spent on ZEV infrastructure. It does also include -- yeah
3 sorry, it includes \$30 million. It doesn't include the \$51
4 million that we have also identified, and it wouldn't
5 include any additional. The \$51 million though would only
6 result in about 4,000 chargers, so that just gives you a
7 magnitude how large the 80,000 K gap is.

8 And I guess one thing I would also note is we
9 want the car, at how I look at it is it's traveling kind of
10 on the yellow brick road if you will on infrastructure. We
11 want it on the green brick road and so you can see the
12 vehicles are way outpacing the infrastructure. So in
13 summary, it takes into account some, but not all of it.

14 Oh, and do you mind if I make just one quick
15 clarification point? And, Mary, you may have been thinking
16 through on the medium and heavy-duty when your comments
17 were about near-zero. One thing I want to, and Patrick
18 tried to allude to this, is we here at the Energy
19 Commission are really trying to focus on the infrastructure
20 side of the transportation equation. Steve's team at ARB
21 are focusing a lot on the vehicle side. And so to the
22 extent that you have specific comments when we get into
23 that piece on near-zero, but infrastructure and how that
24 might be unique, would be interesting especially for that.
25 Okay?

1 And there's Bill.

2 MR. MAGAVERN: Yeah, Bill Magavern with the
3 Coalition for Clean Air. My initial big picture reaction
4 to the proposed funding allocations is to affirm the wisdom
5 of the CEC staff in proposing the scaling up in the medium
6 and heavy-duty sector in the future years. And I think
7 that is warranted on climate and energy grounds, but
8 especially on-air quality and equity grounds because the
9 diesel exhaust coming from our current medium and heavy-
10 duty fleet is a plague on communities that are near our
11 freight hubs and freeways. And those are quite
12 disproportionately low-income communities of color.

13 So we absolutely need to scale up the investments
14 in clean vehicles and infrastructure. We've got a good
15 clean transit rule at ARB, on the way to getting a good
16 clean truck rule. And I think those rules need to be
17 complemented by some investments in this area. So we're
18 definitely behind what you're trying to do there.

19 MR. BARKER: Claire? Thanks, Bill.

20 Who's -- Richard?

21 MR. SCHORSKE: Hi, Richard Schorske with the ZNE
22 Alliance and the EV Alliance. Thank you. I don't have a
23 lot of comment on the overall funding allocations. I think
24 they're basically sensible and they reflect trend lines and
25 fine tuning that just makes good sense. I do have three

1 areas I want to comment on though. One is market
2 acceleration for MUD dwellers, which is an equity
3 consideration as well of course. And I also want to talk
4 about leveraging more private finance and public finance
5 throughout the program. And finally, height leverage
6 policy drivers.

7 So I'll be quick about this, but on the MUD front
8 we don't have good data in here. Good data is actually
9 tough to come by. I notice that MUD and single family were
10 conflated in one high-profile number. And we also have the
11 distinction between make-readies and actual installed EDSC,
12 which isn't always clear.

13 And finally and also very importantly, we don't
14 have data on whether the installed EDSC is actually being
15 utilized. So some of those data gaps actually can be
16 addressed and really desperately need to be addressed. I
17 think that that's an important role for the CEC in
18 conjunction with other stakeholders is to really drill down
19 and know what we're talking about when we're talking about
20 MUD.

21 I have concerns that overall resourcing of MUD
22 has not been robust. There is a line in that report that
23 indicates that applicants are few and far between. I know
24 that's true, so it's not all on the Commission per se, but
25 we need to find out how new and different strategies can be

1 invented, because frankly what has been occurring is not
2 working on so many levels. And it's been worked on by so
3 many stakeholders. So I really feel like we need to focus
4 on MUD and in effect some kind of an action squad that
5 really looks at new strategies and investments that are
6 skilled to match that problem.

7 We know from the data that we have a big gap an
8 uptake of EVs for renters versus single family. And of
9 course that becomes an equity issue right away as well. So
10 I'd like to see a more nuanced discussion of that and more
11 resourcing and more differentiation between a make-ready
12 and an actual installation.

13 And also some look at whether the Title 24 is
14 really helping because frankly from my observation it's not
15 and it needs some refinement. And this Commission, and as
16 this group has a lot say, I think it could help going
17 forward with some enhancement of regulation.

18 Another question is about Level 1. That's been
19 generally not tracked separately. And there's a lot of
20 solutions that involve Level 1 for MUD that are really
21 viable with power management and the light. And I think
22 there's some discussion around that and maybe some specific
23 resourcing or at least just raising awareness that Level 1
24 really can be a solution. There's a market failure in
25 Level 1 because there's not a lot of companies selling that

1 product. They don't like to sell that product, it doesn't
2 have the same profit margin and has other issues of
3 customer acceptance. But anybody that lives in an
4 apartment likes a plug better than no plug, so that's an
5 issue.

6 Finally, connecting MUD and shared mobility
7 solutions I think we have a lot of opportunity with
8 companies like Envoy that are actually deploying vehicles
9 for shared use. And they need help with infrastructure
10 like everybody. And I think having a program, a strategy
11 and category that's specific to shared mobility in the MUD
12 context, could be very powerful.

13 Do I need to stop here?

14 COMMISSIONER MONAHAN: Well my only comment,
15 Richard, is that there's going to be a focus discussion
16 about light-duty after this.

17 MR. SCHORSKE: Okay.

18 COMMISSIONER MONAHAN: So my recommendation for
19 everyone is if you have very specific recommendations
20 within a category, save it for that discussion. And also,
21 just a recommendation because we're coming at this from
22 very different levels of understanding of depth, and feel
23 free to nerd out in terms of the Level 1 and MUD. But try
24 maybe at the beginning just for the sake of everybody else
25 to say what that is so that for folks that are new to this

1 we can just be as inclusive as possible.

2 But I want you to be able to make your remarks
3 and I want everybody to. But it's just as you get very
4 detailed about specific investments just save it for that
5 discussion.

6 MR. SCHORSKE: Should I continue?

7 COMMISSIONER MONAHAN: You can continue, yes.

8 MR. SCHORSKE: All right. So just moving on then
9 on the leverage question I think folks are aware that we've
10 tallied up a lot of CCAs. I've gotten into the game with
11 investment community choice aggregators with investment and
12 programs. There are some that are still on the sidelines
13 relatively speaking. And anything that we can do to
14 channel investments to those that are really willing to
15 also ante up locally can be a real force multiplier for the
16 program and I think would be really, really important. And
17 they are really making some serious investments there in
18 many cases that are super-helpful.

19 Finally high leverage policy drivers, you know
20 there is a lot of activity. But we all know there's a
21 recent analysis by Hal Harvey at Energy Innovation, CARB
22 has acknowledged that we are not on track. We are not on
23 track for our 2040 goals. We're not on track for a lot of
24 things in the transportation domain, in particular around
25 emissions. And I think it's incumbent upon this group,

1 particularly the Advisory Group perhaps more than the staff
2 in terms of statutory mandate, that we actually take a
3 swing here for the fences on policy innovation, because
4 we're not getting there from here. Even if we hit our
5 250,000 EVs and we hit our 1.5 million ZEVS and it's on
6 that isn't actually getting the job done because we have
7 huge growth in the other vehicle segments, even as we have
8 growth in EV.

9 And as somebody pointed out earlier each ICE sold
10 is 12 years, 15 years on the road and they're being sold
11 like hotcakes. We need to actually propose sunset policies
12 around ICE, more a fee-beta approach that actually taxes
13 ICE and rebates much more aggressively to EV. Some of
14 those things that have been considered a little bit out of
15 the mainstream from a policy perspective should be brought
16 into the mainstream.

17 And I think we should do what we can here to see
18 if we can get consensus and then champion those items,
19 because this is still a debt shares exercise relative to
20 even California climate goals. And it's not because
21 they're the wrong strategies it's just because we need
22 additional new, better, much, much higher ambition
23 strategies. So I would invite everybody to weigh in on
24 that and I'll bring it up again, but that's probably the
25 most important thing that I noticed in all of this. Thank

1 you.

2 MR. BARKER: Thanks, Richard.

3 Michael Pimentel.

4 MR. PIMENTEL: Hi, all. Thank you, Michael
5 Pimentel with the California Transit Association. So I
6 have some very specific programmatic priorities I'll speak
7 to later today. But in terms of just the high level, one
8 of the things I do want to be mindful of and would
9 encourage the CEC to be very careful about is the potential
10 to crowd out investments from the investor-owned utilities.

11 The California Public Utilities Commission has
12 just released their draft transportation notification
13 framework. Within that they are looking to encourage
14 further applications from the IOUs in investments like the
15 make-ready infrastructure. And so as we look at the
16 funding allocations that are presented here I think I agree
17 generally with the sentiment that Bill had expressed, it's
18 great that we're increasing funding level particularly for
19 the medium and heavy-duty sector, because that is where the
20 issues in terms of emissions are. But I am in some ways
21 slightly worried that by back loading the investments and
22 having the higher funding levels in those out years we
23 might chill the ability for the IOUs to bring forward
24 investments out of their dollars that are rate-based as
25 opposed to from the state.

1 And so I don't know how you exactly address that
2 within this conversation, but I do think that we should
3 find ways to increase some funding in very near-term. And
4 perhaps year one and year two, because at that point in
5 time the IOUs won't be advancing applications that would be
6 approved, monies that could go out the door. And we do
7 know that the need is immense in these upcoming years,
8 especially as transit agencies migrate to these zero-
9 emission technologies as they look to comply with the
10 Innovative Clean Transit Rules.

11 So I'll go into a little bit more specifics later
12 this afternoon, but that would just be my one word of
13 caution.

14 MR. BARKER: Thanks, Michael. We'll touch on it
15 later. But one of the ideas and rationale was that we
16 currently have 50 million available that you'll hear from
17 Esther later today, for medium and heavy-duty that's going
18 to be out on the table right now.

19 MR. PIMENTEL: Good. Perhaps one of the things
20 that can be explored, and this is one of the things I was
21 intending to mention later, is to find ways to direct those
22 dollars towards purposes that are not funded by the IOUs.
23 And there is an immense need for doing large-scale
24 demonstrations, which the CPUC and the IOUs have not yet
25 made any sort of investments in.

1 There's also a lot of concerns around resiliency
2 planning and redundant infrastructure for transit agencies
3 in particular who will be migrating to these technologies
4 who have in addition to the service that they provide,
5 often do fulfill an emergency response function. And so to
6 the extent that their fleets are electrified they may not
7 be able to fulfill that function.

8 And so there may be ways to take the monies that
9 are available today and find ways to more finely tune them,
10 again to purposes that are not being funded by the IOUs.
11 And I'd also mention that there are a number of transit
12 agencies that fall outside of the IOU territories who
13 wouldn't be eligible for those make-ready programs. It
14 might make good sense to model the IOU programs before
15 those transit agencies and other fleet owners.

16 MR. BARKER: Good. Thank you. I think we'll
17 have an interesting conversation with Esther later.

18 Who do we have next, Claire?

19 MS. SWEENEY: Rey Leon.

20 MR. BARKER: Rey Leon.

21 MR. LEON: Buenos dias, okay it works. That's
22 wireless and it's clean energy.

23 So I'm the mayor of the City of Huron my
24 hometown. It's on the west side of the San Joaquin Valley
25 near the 5. If you ever go down the 5 you pass stinky cows

1 about 20 minutes past that.

2 So one thing that we've noticed is that the LEAP
3 Institute is one of the recipients of the energy summit
4 funds. So we established a rideshare program with electric
5 vehicles and got 10 EV chargers set up in the headquarters.
6 And through the Electrify America got another 12 chargers
7 in three apartment complexes, so it is a community of 7,200
8 on paper, probably more so 10,000 in reality. But it's I
9 think effectively the city in the country with the most EV
10 chargers per capita.

11 The only problem is that this is a farmworker
12 town, the second poorest City in the state of California at
13 about 21 K annual family median income. And we're kind of
14 seeing I think one or two families that have already got
15 some vehicles, but it's still a challenge. And I think
16 this is going to be an interesting process and exercise to
17 try to figure out how do we increase that number?

18 And you know, farm workers are getting paid
19 minimum wage, they don't have a pension plan. They don't
20 have health care. I mean they are the hardest working
21 people on the planet yet the least acknowledged and valued
22 for the work that they do for all of us, right? Who eats a
23 salad here? Who eats a hamburger? Who eat a sandwich,
24 right? So who likes tomatoes, cheese?

25 And so seriously though, we're undermining really

1 the onboarding of the communities that not just deserve it,
2 but should have it due to the fact that on the west side of
3 the Valley there's a lot of diesel emissions. I appreciate
4 Bill's comments. I just learned the word "stranded
5 assets," that's what we've got in Huron. But there's a lot
6 of pollution out there as well. Pesticides are still an
7 issue. I mean the cumulative emissions of different sources
8 are just pounding on communities like Huron.

9 And I think it's not just about providing folks
10 the ability to get their electric vehicles because I think
11 that should happen and not the used, old ones that somebody
12 else has finished using. These communities deserve the
13 best and the best technologies. But also thinking into the
14 future in terms of where how do we take it from an
15 individual owning a vehicle to a community owning a fleet?
16 And that would be electric.

17 And also, that Huron is somewhat well, not
18 privileged yet, but we have a rail that goes all --
19 connects about three counties and about ten cities. And
20 plus it's over Hanford, which has an Amtrak station and
21 will have a high-speed rail station. And so my thought is,
22 "All right, well how can I still live in my town?" And
23 other -- you go to Berkeley, one of the best universities
24 it can be -- and come back and say, "You know what? I want
25 to go back home because there are amenities, because it is

1 a place where I want to raise my children." And there is
2 accessibility right?

3 And so I think how if I lived in Huron without a
4 vehicle how could I get to Sacramento for our meetings? I
5 carpooled this time around or get out later to the Bay?
6 Because there is no taxi, there is no bus that takes you to
7 Hanford, because Hanford is in Kings County. If you want
8 to get the bus to Fresno to get to the Amtrak station it's
9 going to take you three hours.

10 So there is just a huge gap in communities that
11 are isolated, rural communities, farm worker communities.
12 So in terms of that rail there is a plan that today the
13 Council of Governments has across Valley Rail, Huron is the
14 only city in Fresno County. So I'm working with my Council
15 of Governments trying to figure that out. But I think
16 there's funding in HSR, there's funding in the County
17 Council of Governments and perhaps leveraging with CEC
18 monies or something. I don't know, I'm here to learn as
19 well, so I'm glad to be here with all of you. Thank you.

20 MR. BARKER: Thanks, Rey.

21 Will Barrett?

22 MR. BARRETT: Hi. Will Barrett with the Lung
23 Association. First of all thank you for the presentation
24 and that thoughtful discussion from all of the panel
25 members. First off the Lung Association's annual report on

1 air quality, seven of the ten most ozone-polluted cities in
2 the United States is in California, six are the most
3 particle polluted. And we know that this is driven by
4 transportation pollution. We also know as pointed out here
5 that the transportation sector is the largest source of
6 climate pollution that's threatening public health in
7 California today in going forward. So I wanted to just
8 kind of lay that out as kind of grounds for my comments.

9 First I wanted to say that we appreciate the
10 reformatting of the panel. We think that the Disadvantaged
11 Community Advisory Group last year played a very important
12 role. And we're happy to see that voice carried forward
13 here.

14 In this year's plan we are encouraging you to
15 also kind of maintain the focus on air pollution impacts
16 and benefits of these investments, especially in our most
17 disadvantaged communities. As Mr. Magavern pointed out the
18 diesel issue is top of mind for us as well and I want to
19 make sure that we're making continued progress there. We
20 do support the emphasis on zero-emission infrastructure,
21 both in terms of filling gaps and creating new
22 opportunities especially on the heavy-duty side to deal
23 with that diesel issue.

24 And Mr. Pimentel mentioned this idea front
25 loading. I know that that's kind of emphasized on the

1 light-duty side, but if as we are moving forward and there
2 are ways to front load on the heavy-duty and medium-duty
3 side we'd certainly support that as well. Again to really
4 bring those community level benefits up earlier in time.

5 We'd like to make sure that we're ensuring the
6 complementary nature of these programs with ARB's programs,
7 especially around the equity side of things just to make
8 sure that we are kind of building a bridge between the
9 programs well.

10 And then finally looking at the multiyear nature
11 of the proposal we've got some good stuff. I mean it's a
12 good way to ensure some certainty on this, especially on
13 the medium and heavy-duty side to make sure that we're
14 making continued progress there. And I think that's a good
15 step forward out of the gate. So I appreciate that. Thank
16 you.

17 MR. BARKER: Thanks, Will. I would point out
18 that if you took out the 51 million that's in the proposed
19 budget, the reason why we're talking about front loading is
20 we only have 95 million per year. And so I know you
21 probably got it, but if we were to let's say front load
22 multiple it would just be average loading kind of things.
23 And so that's just one thing that we were kind of
24 struggling with, anyway, yeah.

25 Who do we have next Claire? Patricio Portillo.

1 MR. PORTILLO: Hi, Patricio Portillo with the
2 Natural Resource Defense Council. I just want to echo what
3 a lot of other folks have been saying about generally how
4 you looked at the priorities and split up the light-duty
5 and medium. And especially with the ramp-up in the later
6 years, I think that's great.

7 Just a couple of high-level comments, so the
8 amount of funding that we're talking about obviously is
9 pretty substantial, particularly in comparison to what we
10 see other states being able to afford. But it's also
11 pretty small relative to what the need is. So I think it
12 would be helpful to have an additional conversation about
13 sort of how spending can be maximized on ways that we can
14 attract private capital, particularly as this market
15 matures, also just looking at new funding or financing
16 mechanisms as well.

17 In terms of the multiyear I think that's a good
18 approach. It sends a clear market signal. It provides
19 clarity and direction again to the market. But I think
20 that there should probably be some opportunities to
21 incorporate program feedback or market development and the
22 flexibility to adjust the programs as needed.

23 There's also, I think someone else mentioned this
24 earlier, but looking at market-based funding solutions
25 especially in the future years to just ensure that the

1 longevity of these programs exists once funding runs out.

2 Thank you.

3 MR. BARKER: Thanks, Patricio. I would note and
4 I really appreciate the comment on leveraging other funds.
5 Tim Olson, we just released last week -- I'm looking at you
6 Tim -- a request for information with regards to ideas of
7 alternative funding mechanisms, whether they be using
8 loans. We played with the loan loss reserve fund, have had
9 limited success. And so there is another venue. We will
10 hear it today and we're going to ask questions specifically
11 around the fuel production. But we also have a request for
12 information in that, and it's due sometime in April. Is
13 that correct, Tim? But we can get more information on
14 that. But I appreciate you bringing that up.

15 Who do we have next Claire? Say it again?

16 MS. SWEENEY: (Indiscernible.)

17 MR. BARKER: Say that again. Oh, online. Okay,
18 can you unmute Lucas?

19 MR. ZUCKER: Okay, can I on unmute?

20 MR. BARKER: Yes, go ahead.

21 MR. ZUCKER: Okay, great. Thanks everyone. Just
22 speaking as an organization really representing
23 environmental justice communities in my region and really
24 throughout the state through our partnerships with other
25 organizations in SOHA (phonetic) definitely feel like

1 although hopeful about the future of costs falling for
2 individual EVs, it is still really big cost barriers to a
3 lot of our low-income families in my community.

4 As Mr. Leon spoke too, a lot of our membership is
5 farm workers who just even with the subsidies even used EVs
6 are pretty far out of reach for our folks. And so I'm
7 thinking about how to not just encourage individual EV
8 ownership, but how we're kind of be investing in zero-
9 emission buses, school bus fleets, farm worker vanpools,
10 any of those kind of shared transportation needs.

11 And I think particularly in some of our rural
12 communities like where I work there is often a real lack of
13 investment in public transit. And so that will really --
14 making those investments through zero-emission buses can
15 also just help address the kind of lack of (indiscernible)
16 the general.

17 And for a lot of our environmental justice
18 communities some of the biggest concerns is that some of
19 the most notorious (indiscernible) communities in the state
20 from West Oakland to Wilmington to Barrio Logan, to the
21 community where I do a lot of work in South Oxnard are
22 along ports, truck routes, warehouse distribution centers.
23 Those kinds of freight corridors that deal with so much at
24 diesel emissions. And so as some others spoke too, I would
25 definitely advocate for kind of more front loading of the

1 heavy-duty in comparison to the light-duty.

2 Just because I think light-duty is still and
3 those individual EVs are still fairly out of reach for a
4 lot of our folks. Whereas the health impacts that we're
5 dealing with from the heavy-duty freight in our communities
6 is really real and really immediate. And in a lot of
7 communities it's actually getting worse as kind of the
8 logistics. In fact, it grows with Amazon and just
9 globalization in general and lots of expansions of ports
10 and warehouses and trucking through our neighborhoods.

11 And so folks may know that the California Office
12 of Environmental Health Center Health Hazard Assessment
13 estimated awhile back that 70 percent of the cancer is from
14 toxic air contaminants for California residents is just
15 from diesel exhaust. And so I think there is huge co-
16 benefits in terms of health to making those investments in
17 heavy-duty, that it's not just addressing their kind of a
18 disproportionate share of greenhouse gas emissions, but
19 also the really harmful health effects of diesel exhaust.

20 The last point I'd raised on heavy-duty is just
21 around the nature of the industry and how in the last few
22 decades there's been such a big shift to independent
23 contractor owner-operator truckers. And that's created a
24 huge barrier to kind of cleaning up those heavy-duty
25 fleets, because the big companies that have the capital to

1 make those investments are classifying truck drivers as
2 independent contractors. And so that burden of buying new
3 trucks is on those drivers.

4 And so thinking about also from kind of a labor
5 and workforce perspective how can we make sure those
6 investments are really benefiting truckers, so that they
7 are able to invest in clean trucks without the burden of
8 our environmental standards kind of falling on them rather
9 than falling on the companies that have had a lot more
10 resources.

11 MR. BARKER: Thanks, Lucas. That was very
12 helpful.

13 I would also note this is just talking about the
14 ARFVTP, which stands for something I promise, which is the
15 funds on the registration of vehicles. We are currently
16 implementing a pot of funds that were Proposition 39 that
17 were intended to clean up our public schools with energy
18 efficiency and renewables. And so we have been able to
19 utilize \$75 million for about 230 school buses for that and
20 that's outside of this program.

21 COMMISSIONER MONAHAN: So we have a new Advisory
22 Committee member who just stepped into the room. I hate to
23 put you on the spot. We had an icebreaker question, but I
24 feel a little guilty giving it to you.

25 MALE VOICE: You're laughing way too much here.

1 COMMISSIONER MONAHAN: Do you want to just
2 introduce yourself, and did anybody else join later?

3 MR. BARKER: Yeah. We have two folks.

4 COMMISSIONER MONAHAN: Oh, we have two folks.
5 Okay, well then I will go, and I will have the icebreaker
6 question. So the icebreaker question since there's two of
7 you is, so give your name and your affiliation. And then
8 what your birth order is in your family and what it means
9 for how you show up in group settings or in work settings,
10 what it means for you. But in one sentence, only one
11 sentence.

12 MR. BARKER: And using the microphone, please.

13 COMMISSIONER MONAHAN: Yeah, because we have
14 folks on the WebEx.

15 MR. BARKER: We had two. I'll call on Table 4,
16 so Leslie, yeah.

17 MS. AGUAYO: Hi. I'm Leslie Aguayo. I'm an
18 Environmental Equity Program Manager at the Greenlining
19 Institute. I am the first-born only daughter. I have
20 three younger brothers, so I think that makes me show up as
21 an advocate in many spaces and very aware of double
22 standards as well.

23 MR. BARKER: Did everyone at that table introduce
24 themselves? Yes, okay. And then we also have Heidi
25 online, so we'll get to Heidi last, so Kevin?

1 MR. HAMILTON: Kevin Hamilton. I'm the Co-
2 Director of Central California Asthma Collaborative. I'm
3 the oldest. That means I'm in charge, just keep that in
4 mind, and accountable even if I didn't do it. (Laughter.)

5 MR. BARKER: Great. Thank you.

6 And Heidi?

7 MS. SICKLER: Yes. Hi, Heidi Sickler, Director of
8 Energy and Environment at the Silicon Valley Leadership
9 Group. I am the first-born only daughter. My brother is
10 the CEO in the family though, so he can (indiscernible)
11 that.

12 MR. BARKER: Great. Thank you.

13 Who did we have next Claire?

14 MS. SWEENEY: (Indiscernible.)

15 MR. BARKER: Morgan?

16 MS. CASWELL: All right, Morgan Caswell, Port of
17 Long Beach. I have a couple of comments. First I would
18 just echo what everyone is saying that I'm glad to see
19 equity at the forefront of how you're making decisions
20 about investing in infrastructure. It's not a secret the
21 seaports significantly impact our local communities and the
22 impact is disproportionate to other sectors as well.

23 I would say that kind of in that vein there are
24 multiple sources at the port, right? There's not just the
25 off-road vehicles, which have been funded under this

1 program, there's also the harbor craft and the vessels
2 coming in. And I would encourage you, when you're talking
3 about context, to think about the other sources as well,
4 because for us CARB is coming out with many rules, which
5 will impact the ports in a good way, right? Reducing
6 emissions from harbor craft, they will be coming out with
7 their Commercial Harbor Craft Regulation. Their at-birth
8 rule will be finalized probably the end of April, which
9 will expand shore power at the seaports. They have the TRU
10 regulation, the refrigeration units.

11 So I would encourage you to take a look at that,
12 because in terms of how we look at electrical
13 infrastructure we look at the whole ecosystem. And there's
14 going to be significantly more infrastructure need than
15 just for our off-road equipment. And when we size our
16 infrastructure we're looking at the whole gamut of
17 electrification. So that's my comment on context.

18 I'd also emphasize again, as William did, the
19 importance of coordinating with CARB on that and getting
20 information from them on their regulations and how you can
21 complement one another when it comes to infrastructure. I
22 won't get into a ton of detail and I know we're going to
23 talk about it later, but I think you're probably going to
24 hear a mix of responses on when you should time medium and
25 heavy-duty infrastructure. And it will depend on the

1 industry and it will depend on the state of technology.

2 So for me for off-road cargo handling equipment
3 the technology isn't quite there today. And I would want
4 to do a full-scale terminal infrastructure master plan in
5 the coming years before fully deploying infrastructure
6 across the terminal. And then I'd also be able to
7 incorporate the upcoming regulations on the other sources.
8 So I'll leave it there.

9 I would also just say that the technology
10 advancement funding has been critical for us and will
11 continue to be critical for us.

12 MR. BARKER: Thanks, Morgan.

13 Russ.

14 MR. TEALL: Russ Teall, I'm bipolar. I'm
15 representing Recreational Boaters and Biodico, which does
16 all of the above. So I agree with Bill Magavern in that
17 health effects are essential to disadvantaged communities
18 and low-income communities. And in improving them I'm sure
19 it's being addressed, but I would like to see an emphasis
20 on near-term, mid-term and long-term health effects in our
21 plan.

22 I look at the CalEnviroScreen. We're doing a
23 project in Rey's community and he has EV chargers, but no
24 renewable electricity onsite and no storage. And so it's
25 grid charged. We're doing a project in La Colonia in

1 Oxnard and we're working on collecting food waste for
2 digestion, running it through a capstone turbine and
3 charging electric forklifts. And so I think that all of
4 the above need to be taken into consideration in the plan.

5 I think that it's laudable doing a three-and-a-
6 half-year plan in order to send a market signal. That's
7 probably not long enough in that the PPA's are for 20 years
8 at a time, so but it's better than a one-year at a time.
9 The disadvantage is do we get to review the program as it
10 goes through to make midcourse directions?

11 COMMISSIONER MONAHAN: Yes, we do. So annually
12 we will look back and we'll convene the Advisory Committee,
13 but it will be more in a are we going directionally in the
14 right way? Do we need to make tweaks versus wholesale
15 revisions is how we were envisioning it.

16 MR. TEALL: And finally, I read the RFI that Tim
17 Olsen wrote or authored. And I think that's a good
18 opportunity to send a long-term message to the investment
19 community by leveraging CEC funds with investment funds.
20 That's the kind of thinking that we need to do for
21 leveraging \$100 million. It sounds like a lot, but it's
22 nothing. And it needs to be used as wisely as possible to
23 leverage other funds.

24 So is Tim going to do a presentation later on?
25 No?

1 MR. BARKER: No. This is just on the Investment
2 Plan, but thanks, Russ. I would maybe tongue-in-cheek
3 agree that longer than three-and-a-half years would be
4 nice. That's our sunset date.

5 So who do we have next, Claire? Jimmy.

6 MR. O'DEA: Hi. Jimmy O'Dea, Union of Concerned
7 Scientists. Quickly I'll plus out the multiyear aspect of
8 this, the focus on zero emission and also heavy-duty
9 infrastructure being much more expensive, policies syncing
10 up with the need for heavy duty, at CARB we're seeing lot
11 of activity. One of the biggest concerns we hear from
12 fleets is infrastructure, and so I think that more
13 infrastructure for heavy-duty is certainly needed.

14 I want to also plus out something that Mike
15 Pimentel said about filling in gaps and complementing other
16 programs. You know, there's a lot of money on the table
17 from other state agencies, certainly not enough. I guess
18 that's a good ground setting thing. The money we're
19 talking about today, 100 million, the money from the PUCs
20 approved, CARBs H-FIT (phonetic) money, other investments;
21 none of this is really enough. So we're all I guess
22 operating in this context of limited pots of money and
23 recognize that.

24 But I do want to just support the idea of
25 complementing, I think a lot of folks are using that word.

1 Just for example, the PUC proposals, there is a lot a
2 fleets that are not -- serving in territories that aren't
3 PG&E, Edison or San Diego Gas and Electric. So there's a
4 lot of opportunity for investments that aren't served by
5 programs that already out there.

6 No one has really commented too much on the
7 production of fuel supply manufacturing workforce
8 development, so I'm curious to hear more about those.
9 Particularly the manufacturing workforce development could
10 be a high bang for your buck, type of investment that other
11 agencies aren't doing. And so I do want to just raise this
12 up that dollar amounts are smaller here. And maybe also
13 just raise up the question about what the nature of the
14 fuel supply is and what it does that LCFS doesn't, because
15 that's certainly a big driver.

16 MR. BARKER: Okay. Yes, and we'll definitely get
17 into that later. Thanks for raising that.

18 Who do we have Claire?

19 MS. SWEENEY: (Indiscernible.)

20 MR. BARKER: Zac, all right.

21 MR. THOMPSON: Hi, Zac Thompson with the East Bay
22 Community Energy. First off I just wanted to say thank you
23 all for putting this meeting together and for putting this
24 document together. I think it looks really good and
25 definitely support the multiyear approach. I think that's

1 a really smart way to go about it.

2 And I understand and agree with this approach of
3 sort of front loading the light-duty EV infrastructure
4 component and sort of back loading the medium and heavy-
5 duty vehicle and infrastructure component. But I'm also
6 just wondering if it's maybe a little bit too much front
7 loaded on the light-duty EV infrastructure side and
8 wondering if some of that money should just be spread out a
9 little bit more.

10 And I understand that there is that \$51 million
11 one-time appropriation in there, but even aside from that
12 there still about \$42 million to work with. And I just
13 have some pause about the feasibility of efficiently
14 getting \$93 million worth of infrastructure projects sort
15 of up and running at the same time. And so I'm wondering
16 if it would make more sense to sort of spread that money
17 out a little bit more, whether that's through the later
18 years on the light-duty EV infrastructure side or whether
19 some of that money gets shifted into the medium and heavy-
20 duty vehicle and infrastructure side, particularly because
21 that medium and heavy-duty bucket includes vehicles and
22 infrastructure as I'm reading it.

23 And I think everyone here knows and has talked
24 about this already to an extent that both those vehicles,
25 and the infrastructure component behind those, both have

1 very high costs to them. So I'm just wondering if it would
2 make more sense to take some of that money, the 93 million,
3 and distribute that out a little bit more.

4 MR. BARKER: Thanks, Zac. That's helpful, one
5 thing that just it's more of for your information for how
6 the funding works. So we've received the 95 million in a
7 specific fiscal year. We have then four years to encumber
8 the funds, which means to lock up the funds, and another
9 four years to spend them. So I'm not disagreeing with your
10 comments, but just want to put that out there that any of
11 the allocations don't mean that the money has to be spent
12 necessarily that year. There is a little bit of wiggle
13 room built into that.

14 Okay, who do we have next Claire?

15 MS. SWEENEY: Matt.

16 MR. BARKER: Matt.

17 MR. GREGORI: Thank you. Matt Gregori, SoCalGas.
18 I want to commend the staff on putting together a very good
19 overview of the program and the drivers behind the funding
20 allocation.

21 I want to look at Slide 13 where you have the gap
22 analysis, which I thought was particularly instructive.
23 I'm struck that the gap in EV Chargers and hydrogen fueling
24 infrastructure on a percentage basis is roughly equal. We
25 have similar challenges across both technology platforms.

1 However, in regard to EV charging we noted on Slide 12
2 there is \$100 million from the NRG settlement dedicated to
3 EV charging infrastructure. There is \$1 billion for mostly
4 EV charging infrastructure through SB 350 in the pilot
5 programs established by the CPUC for the electric IOUs.

6 So there seems to be a lot of funding available
7 to address the gap in EV charging infrastructure. However,
8 the funding allocation that you've set, this staff has set
9 forth, has pretty minimal or reduced funding for hydrogen
10 refueling infrastructure. And it seems to me that given
11 the need for hydrogen fueling infrastructure and the lack
12 of other resources for advancing that infrastructure
13 deployment that the budget should be reallocated to provide
14 more funds towards hydrogen refueling infrastructure.

15 And then I think on the multiyear funding
16 allocation, I support everyone who agrees that this is a
17 good idea. It gives good market signals and provides some
18 certainty into the future. I would say one of the values
19 of maybe doing multiyear funding allocation is to do this
20 sort of front loading and back loading activities. And I
21 think a lot of what my impression is that a lot of the
22 funding is sort of flat over the years. And maybe that's
23 valuable. I just think there's another lever to pull there
24 where you can sort of sculpture a funding allocation over
25 the time period.

1 And then on the question of, "Are we missing any
2 important activities?" I'm struck by the complexity of the
3 discussion today regarding how do we get more ZEVs into the
4 market. Is it an infrastructure thing? Is it how do we
5 help disadvantaged communities? We have multi-unit
6 dwellings. There are a lot of factors here. And I think
7 there may be an opportunity to provide some analysis of
8 what are the barriers to getting more ZEVs on the road.
9 That seems to be the primary goal and metric of the
10 program. So has there been sufficient market study and
11 customer adoption studies to say what are the best uses of
12 this fund in order to get the most advancement? And given
13 everyone's acceptance that there are limited dollars in
14 this phase, how do we use those dollars most effectively?

15 And that's all I have. Thank you very much.

16 MR. BARKER: Thanks, Matt. Just two points of
17 clarification. So the funding that you pointed out from
18 the settlements from the utilities, those are included in
19 the planned chargers. So the yellow bar does include the
20 estimated chargers from those. And so the 80,000 are
21 unfunded charging.

22 I would note for the hydrogen there, yes it is
23 flat at 20 million. There is a cap through the Assembly
24 Bill 8 legislation that authorized this program. That does
25 cap us at \$20 million for hydrogen infrastructure until

1 there are 100 retail stations open. So with that the
2 Commissioner also has a note.

3 COMMISSIONER MONAHAN: Yeah, this is a process
4 suggestion, because we want to make that everyone gets a
5 chance to speak on the big picture before we get into the
6 minutiae. So if you've already spoken put your card down
7 and let's make sure that everybody else has a chance to
8 speak. Also, we have folks on the phone that we want to
9 make sure get a chance to speak if they want to.

10 I'm going to be pretty disciplined about the
11 agenda so we can get out of here. Well we'll be done with
12 all of the presentations and the comments of the Advisory
13 Committee by 4:00 p.m., give the public a chance to speak
14 and end by 5:00. I don't know about you guys, but I've got
15 to vote. And so I'm going to be disciplined about this.

16 If somebody has already said something that you
17 agree with, I've heard people say, "I agree with that
18 person," let's do that so that we can make sure that
19 everybody gets a chance to speak.

20 MR. BARKER: So Claire that's on you. I know you
21 probably noted some folks that are going up a second time.
22 But so who's next on the first-time speaker?

23 SW: (Indiscernible.)

24 MR. BARKER: Okay. Katherine.

25 MS. GARCIA: Hi. I'm Katherine Garcia with

1 Sierra Club California. Just real quick I wanted to note
2 that we're very pleased with the equity component.

3 And I wanted to call out a statistic that is on
4 the job report that was released yesterday, that 12 million
5 Californians reside in areas that exceed ozone and
6 particulate matter standards. It specifically calls out
7 San Joaquin and South Coast. And for that reason we think
8 that equity is super important, and we're pleased that it's
9 a priority for this program, also very pleased about the
10 multiyear aspect.

11 We are also very involved in the Advanced Clean
12 Truck Rule over at CARB, the regulation is coming up. And
13 one of the things that we've heard from a lot of
14 stakeholders is that they want to make sure that this
15 investment is on the table for medium and heavy-duty
16 vehicles. And so since we're looking at the coming years
17 for the Advanced Clean Truck rule it's very good that this
18 program also has multiyear investments and that they are
19 aligned.

20 Calling out Slide 10, I wanted to just emphasize
21 the focus on climate and air quality. For that reason the
22 goals here for 2045, 100 percent zero-carbon electricity,
23 2031 80 percent reduction in smog forming NOx. That really
24 justifies our position where our priority is zero-emission
25 vehicles, zero-emission freight, zero-emission buses,

1 zero-emission cars.

2 And in terms of air quality again bringing up San
3 Joaquin and South Coast and the emphasis on that, this is
4 really the 2020s. Right now it is the decade for making
5 progress, strong progress on reducing smog forming NOx.
6 Just to illustrate this point, a child born today would be
7 in about sixth grade in 2031. And so you can visualize a
8 sixth grader playing outside, perhaps in San Joaquin and
9 South Coast area. We want to make sure his area is clean,
10 he or she is breathing clean air with his classmates and
11 parents too.

12 And just one last thing in terms of I wanted to
13 call out Rey Leon's comment. When he talks about EV
14 ridesharing in Huron I really feel that that really
15 illustrates the success that that tone has had. In these
16 new modes of transportation EV ridesharing is really,
17 really here and I think he studies illustrating these types
18 of points. These types of success stories are really
19 important. Thank you.

20 MR. BARKER: Thanks, Katherine.

21 Claire, who do we have next? JB.

22 MR. TENGCO: Hi, JB Tengco with the BlueGreen
23 Alliance. We represent labor and environmental groups. So
24 I wanted to add Tim we were excited about the equity piece
25 in front and center. I'm excited that we're going to have

1 a conversation there on about workforce and that in and of
2 itself, that it's vertical. I'd say that just to imagine
3 its users thinking about it that workforce is a constant
4 that should really be considered throughout the
5 horizontals. And how do we think about workforce in sort
6 of a double bottom line. And not only just in the
7 investments of getting better technology on the road, but
8 how do those technologies end up leading to creating and
9 maintaining good jobs also ensuring that those jobs have
10 access and lead to family-sustaining jobs.

11 Also I would say as you guys are working with
12 other agencies that agencies like the Workforce Board, the
13 Labor Agency -- we're seeing reports from AB 398 that will
14 soon be coming out -- the Future of Work, are all really
15 looking at how do we grow California in a way that leads to
16 good jobs? And so as we're looking at this within this one
17 sector of industry throughout California, we're really
18 trying to think through all of our investments to lead to
19 good jobs. And so I just want to raise that in this
20 conversation.

21 MR. BARKER: Thanks, JB.

22 Daryl.

23 MR. LAMBERT: Some of the comments will help make
24 mine very brief, because I agree with everything that you
25 just said so that's very efficient.

1 I just want to add that I don't feel confident
2 that I can answer Question Number 2 without having a little
3 bit more of a disaggregation of context. I don't know if
4 the right context is there. But I'd like to see a
5 breakdown of the allocation of funding across those four
6 priorities that are listed.

7 Acknowledging that equity is cross-cutting, I
8 would like to see how much of the funds are actually going
9 towards an equity funded, or an equity activity. And I
10 want to point out that I one hundred percent agree with the
11 concerns we're raising. We're focusing a lot on mitigating
12 the negative impacts of our current fossil fuel driven
13 transportation system. But I haven't heard much
14 conversation or much mention of maximizing until now,
15 maximizing those positive impacts of a switch to a cleaner
16 economy or a cleaner transportation system.

17 I feel the key to increasing access to high-
18 quality jobs is expanding that pathway to folks who are
19 currently experiencing barriers to employment. And I'd
20 like to see us discuss and explore options to leverage the
21 existing funding allocation for EV infrastructure, EV
22 adoption, as a way to bake in expanding access to those
23 (indiscernible) pathways as long as they're family-
24 sustaining, high-wage occupations.

25 MR. BARKER: Thanks, Daryl.

1 Larry.

2 MR. ENGELBRECHT: Hello, Larry Engelbrecht. I'm
3 the Educational and Program Accreditation Consultant to LA
4 Community College District currently. Regarding Slide 15,
5 under workforce development I request that we consider
6 raising the 2020 through 2021 amount from the 3.5 million.
7 I don't know what we would want to increase it to.

8 There are several reasons. I'm not going to take
9 up time this morning to get into details, but I'll just go
10 over these very quickly. In California the ASC accredited
11 truck programs, four of them are private-postsecondary and
12 only one is a public one. Also the truck standards are
13 going through some changes. And as far as light-duty
14 programs go there has to be a change in what had currently
15 been articulation agreements between high schools and
16 college programs changing over to dual and concurrent
17 enrollment to eliminate unnecessary duplication of
18 instruction.

19 And also I noticed on the ATL lists of the
20 programs that were funded before, about one out of three of
21 the colleges were not nationally accredited through ASC.
22 However for the high schools only about 11 percent of them
23 were accredited. And the reason that is significant is the
24 ASC certificate is considered to be the most employable,
25 tangible certificate so to speak. And if the programs are

1 accredited then the experience requirements are waived to a
2 significant degree.

3 So for example you take two programs, student
4 graduates or completes a program at one college or another,
5 one is accredited, one is not. The one that is accredited
6 only needs one-year work experience versus two years.

7 So what I've seen in the past as a former high
8 school teacher who had also sent out students to
9 internships is that if they don't realize that there is a
10 steady series of short-term returns on investments they're
11 going to be leaving the industry. And so in one of the
12 recent Advisory Committee meetings, and I hear this over
13 and over again, is the good news is our technicians, our
14 students are getting hired. The bad news is they're not
15 coming back to complete the programs.

16 MR. BARKER: Thanks, Larry. And another Larry
17 maybe he'll touch on that later in his presentation.

18 Who do we have next, Claire? Sandy.

19 MS. NARANJO: Hi, good morning. My name is Sandy
20 Naranjo. I'm with Mothers Out Front. We're an
21 organization dedicated to climate justice, on centering
22 mothers and grandmothers to end the climate crisis.

23 And the question I have is in regards about how
24 we can leverage more funding, specifically about 8617, that
25 has goals of eliminating toxic air pollution in

1 environmental justice communities where there are sources
2 of funding for transportation and how we can connect this
3 program with that program to make sure that we're advancing
4 our goals.

5 MR. BARKER: Casey?

6 MR. GALLAGHER: All right, Casey Gallagher with
7 California Labor Federation. So yeah, I'm pleased to see a
8 multiyear plan. But I think it's going to need to
9 basically lay out vision, also mission and also
10 coordination. So I'll go on to some of the other
11 approaches mentioned by Mr. O'Dea or Mr. Pimentel, how
12 these coordinate with other projects. I'm sitting next to
13 someone from CARB that I'm thinking about the Innovative
14 Clean Transit Regulation or say the Sustainable Communities
15 Equity Project. My main thing is going to be manufacturing
16 and workforce development. That's kind of where I cut my
17 teeth at, and I'll go into with the weeds a whole lot more
18 later on, not to bore you with all the details, that's for
19 the afternoon show.

20 However, that being said \$6.5 million over three
21 years is really not that much money. So I'm putting forth
22 there needs to be some kind of coordination, because we're
23 looking at every single component within the allocations.
24 And I see a workforce development component in this. We're
25 talking about major changes to technologies that California

1 workers need to actually see this. And when we speak of
2 equity, we're not just speaking of health we're also
3 speaking of expanding opportunity and access.

4 And for communities to be equitable and to
5 reverse decades of disenfranchisement to disadvantaged
6 communities we need to focus on how do we create these
7 opportunities into good careers? Good union careers that
8 will lead to family-sustaining wages and healthy
9 communities. Thank you very much.

10 MR. BARKER: Thanks, Casey.

11 Claire how many do we have left on your list?

12 MS. SWEENEY: (Indiscernible.)

13 MR. BARKER: Okay, and so we've got about 20
14 minutes before break, so let's just keep charging through.
15 Who's next?

16 MS. SWEENEY: Ruben Aronin.

17 MR. BARKER: Ruben.

18 MR. ARONIN: Thumbs up to multiyear. I think
19 it's a good signal not just for the private sector, but for
20 other public agencies. One of the hats I wear is The
21 Outreach Coordinator for the Mobile Source Air Pollution
22 Reduction Review Committee that has similarly aggregated
23 about 60 million in clean transportation and infrastructure
24 investments in Southern California, Riverside, San
25 Bernardino, Orange and LA counties.

1 And this need for pilot projects, and we'll talk
2 more about it I expect in the afternoon, for heavy-duty
3 there's a real need; particularly because there's such
4 significant gaps between IOU, the independent utilities,
5 SoCal, Edison and our territory, and then municipal
6 utilities. And in figuring out particularly along the
7 freight corridors how to get more key pilot projects that
8 are expensive and have elements that are untested yet in
9 the ground sooner rather than later, is going to be a real
10 critical learning to gather from others.

11 And then I just want to make a comment on the
12 light-duty side as we think about infrastructure
13 investments. I drive a used Leaf. I get about 80 miles on
14 a good day. And I mostly rely on home charging, but I'm
15 constantly let down by infrastructure that hasn't been put
16 in all that long ago: street chargers broken, charging
17 units; it's not just wait time. And I think that for the
18 first adopters that was acceptable.

19 But we're now getting to mass market adoption.
20 And so as stewards of our investments how we're making sure
21 that this infrastructure is going to last, is going to be
22 maintained. I am concerned about the user experiences
23 across the board on infrastructure. I think that needs to
24 be thought of in some capacity. And in this gap filler
25 because we don't have enough resources for the need, how

1 can the CEC aggregate the investments that it's attracting?
2 Public and private sector, so that we can feel like we're
3 not just spitting in the wind but really building and
4 filling the gaps in that pie chart because we need to get
5 there.

6 And I think we can find this as a worker or a
7 jobs element. Not to get into a green new deal
8 necessarily, but what are the job metrics of these
9 investments? I think that would be useful across the board
10 and then what are the workforce? I'm curious about what
11 are the gaps that are needed versus a lot of skills that
12 already exist to make this infrastructure real.

13 MR. BARKER: Great comments. Thank you.

14 MS. SWEENEY: (Indiscernible.)

15 MR. BARKER: Say that again? Alfred.

16 MR. ARTIS: Hello, Alfred Artis from Consumer
17 Reports. First of all we do want to echo how much we enjoy
18 this wonderful document. It's got a lot of great stuff
19 about equity that we think is very important.

20 Furthermore, when it comes to these investments
21 in the light-duty charging infrastructure space,
22 specifically public charging and charging at MUDs we just
23 want to make sure that there is a focus on making sure that
24 consumers capture the fuel-cost savings that are promised
25 by zero-emission vehicles. As everyone in this room knows

1 electric vehicles provide a lot of savings that lower the
2 overall cost of the vehicle. And for consumers who won't
3 have access to at-home charging , which is considerably
4 cheaper than public charging we would want to make sure
5 that these investments into the building out light-duty
6 public charging infrastructure maintains cost savings for
7 our consumers, especially those who will not have access to
8 at-home charging. Thank you.

9 MR. BARKER: Thanks.

10 Tyson?

11 MR. ECKERLE: Hi, so Tyson with GO-Biz. I'll be
12 quick. I think I agree with the long-term funding and a
13 lot of consensus in this room, which is great. Just a
14 couple of things for context, one of the things is the
15 Climate Catalyst Fund in the Governor's Office Budget?
16 It's the Governor's Budget, which hasn't gone through the
17 Legislature but something to keep in context as we go here
18 in kind of moving projects from that pilot phase to more
19 scale, so it's something we want to make sure we have in
20 our mind.

21 And the other one I wanted to highlight is kind
22 of the medium and heavy-duty. And we should be thinking
23 about how we might want to potentially split those funds up
24 between plug-in and hydrogen, just some of the lessons
25 learned from the light-duty sector, which stopped the

1 infighting between those fuels. And so that could be
2 helpful especially as we try to increase certainty and
3 investment. I don't know what that split looks like.
4 There's a lot of analysis.

5 And then the final point being AB 2127 and all
6 the great stuff that the Energy Commission staff is doing
7 on plug-in charging analysis. I think we need to do a
8 similar effort on hydrogen especially on the heavy-duty
9 side. I think we've got a good handle on the light-duty,
10 but figuring out how we can -- what is our state strategy
11 there? That's kind of a challenge for all of us here in
12 the stakeholder group.

13 Oh and then one last thing, Mayor Leon, I noticed
14 that Huron is really close to the Coalinga Station, so you
15 can take credit for that too for hydrogen. So it's for
16 your per capita, it goes up. (Laughter.)

17 MR. BARKER: Thanks, Tyson.

18 Kevin?

19 MR. HAMILTON: So with regard to the first bullet
20 and the additional context, I note that in the contextual
21 slides we're mainly focusing at ARB's regs and rules and
22 are leaning hard on our climate goals. I think there are
23 other opportunities and we're going to have to think
24 differently in moving forward.

25 Each of the agencies has the opportunity in their

1 regulatory capacity to make changes here. CEC just did a
2 really fantastic update to the electrical building code for
3 energy efficiency and lighting that in green buildings
4 that's just awesome. But nowhere in that is a mandate that
5 both new buildings and retrofits or remodels, at least that
6 I know of, mandate the charging infrastructure be built
7 into that new build again or remodel. Until we get to that
8 point where that's mandatory we're never going to make
9 this. There's no way this state can continue to pour an
10 adequate amount of money into this to fund every bit of
11 this infrastructure everywhere we go. So thinking of new
12 ways of leveraging the existing dollars is going to be
13 paramount. And if we don't put that to the forefront of
14 this conversation we'll find ourselves back here in four
15 years doing the same thing.

16 So the other piece is the equity lens that we're
17 looking through now, we are all very happy with what we see
18 there. How does that hit the ground? How does that create
19 equity in those communities? What is equity in those
20 communities?

21 We launched a program with our partner CSC on
22 CaleVIP and CVRP where we're looking at talking to
23 residents in communities to find out how they feel about
24 these vehicles. But on the CaleVIP side there's no
25 structure to do that. We have to create it. There's no

1 mandate in that program that we do these kinds of
2 community-based assessments.

3 And again, if the residents in the neighborhood
4 don't understand what this means to them, if I can't ask
5 them, "What would it mean if in Huron I was to stick as Mr.
6 Leon, Mayor and my colleague of the past 25 years in very
7 many crimes -- I can't say, "government," just saying --
8 what it means if they put charging infrastructure in the
9 local market, would that actually move them to purchase an
10 electric vehicle and use it? And I think that's the kind
11 of understanding we need to have. And the guy that owns
12 that market, what are we doing to go and talk to him and
13 make sure he understands that? I see a whole legion of
14 small businesses being left behind across the San Joaquin
15 Valley.

16 And the shortfall in that particular program,
17 whoever made the decision that somehow we would only go to
18 San Joaquin County, Fresno County, and Kern County did a
19 great disservice to folks in Kings, Tulare and Madera and
20 Merced counties. I understand we have limited resources.
21 However, that set up sort of in-fighting now within those
22 counties about why us and why not them? I've got people in
23 Farmersville, a very progressive City Council that really
24 wants to access this funding, but they can't because of the
25 way it's set up. So again, equity needs to be beyond

1 simply the local person, the local household, the local
2 community and think more broadly about the region. And of
3 course in this case I'm speaking to the San Joaquin Valley.

4 So interagency cooperation, Governor Brown,
5 that's one thing he did get right. And I really feel
6 strongly that we're not seeing that as well as it could be.
7 Again, we're seeing one agency that basically anchors all
8 of the rules and regulations in this. For the majority of
9 them we need to see that continuity across agencies. All
10 13 agencies were given GGR money. Some of them are still
11 struggling to figure out how to spend it in a way that
12 actually reduces greenhouse gas. And they come up with
13 very interesting and almost fantastical ways to explain how
14 that money is somehow going to -- I hope I'm not offending
15 anybody. I don't think this is a big secret. They're just
16 trying to meet their mandate, yet here is an asset that
17 really needs that kind of funding, so how do we again
18 leverage this money? Find a pathway forward to those other
19 pots of money and show them how CalRecycle could for
20 instance connect to this and leverage some of their dollars
21 with these dollars to be able again to put this
22 infrastructure down in some of these communities where it's
23 most important.

24 And again I just want to reinforce one of the
25 missing important activities here again is how do we fund

1 this outreach and education into these communities? Where
2 is the money for that?

3 And I do want to make a pitch to agree with
4 everybody here who said "workforce development." So.

5 MR. BARKER: Thanks Kevin.

6 MS. SWEENEY: (Indiscernible.)

7 MR. BARKER: Who's on the phone?

8 MS. AGUAYO: I'm right here.

9 MR. BARKER: Yes, Leslie, go ahead.

10 MS. AGUAYO: Hi, Leslie Aguayo from the
11 Greenlining Institute. I also just wanted to highlight you
12 are making a big effort to center equity in this program. I
13 really appreciate that given that I represent a racial
14 equity organization. It's super important to see and it
15 shows a commitment from you all.

16 I would like to also have seen a breakdown of the
17 funding in regards to which are directly applied to equity
18 programs. I think a further discussion of the coordination
19 of funding analysis would be really important to see as
20 well, given that there are some programs that might not
21 necessarily fully encompass our definition of equity such
22 as CVRP, where we haven't seen income caps. And so other
23 folks are still able to access rebates and not necessarily
24 qualify as low-income folks.

25 I'd also like to double tap on the consideration

1 for how implementation education is going to be designed in
2 programs. One of the things that we strive to see is how
3 program designs consider geographies in their design. So
4 if you're looking at a rural community it's very different
5 from an urban center. And so sometimes a single-occupancy
6 vehicle even though it's electric might not be the best
7 solution for certain communities. And so investing in
8 active transportation and public transportation and e-
9 mobility and other options I think it's also something to
10 consider.

11 As well as I know MUDs were being talked about
12 earlier. And I think considering affordable housing
13 development as part of this plan would be really important
14 to look at. I don't know if there's some kind of way that
15 we can figure out how to create investments or incentives
16 within the light tech housing programs.

17 And then I don't know yet if this is irrelevant,
18 but I don't think so. But I didn't really see much on the
19 consideration of wind use moving forward in this proposal
20 either. And given that we have a climate change crisis
21 like the way that we use land will significantly change by
22 2020 to 2030. And so how are investments and
23 infrastructure going to be addressing the change in our
24 landscape I think is important to consider too. Thanks.

25 MR. BARKER: Okay, thank you.

1 Let's see, well we only have two Advisory
2 Committee members on the phone. Heidi or -- Lucas already
3 spoke.

4 COMMISSIONER MONAHAN: I'm sorry, did everybody
5 on the Advisory Committee who is on the phone get a -- does
6 anybody on the phone who is on the Advisory Committee wish
7 to speak or they both spoke?

8 (Off mic colloquy.)

9 MR. BARKER: Okay.

10 COMMISSIONER MONAHAN: Okay. Well, thank you
11 everybody. I wanted to 1st say that we're listening very
12 carefully to every comment and thinking about what
13 adjustments we should make to our Investment Plan based on
14 these comments.

15 I want to just emphasize that this is a real
16 process. And we want to make sure that we are tailoring
17 our Investment Plan to take your advice into consideration
18 and also to take public comment. And there's an
19 opportunity to send us written comments as well, so this is
20 a live process. And we've never done a Multiyear
21 Investment Plan. I'm very new to state government, so I'm
22 not jaded to this process. (Laughter.) And we really are
23 going to make adjustments based on the input that we get.

24 I've been looking at the afternoon and realizing
25 there's no way we're going to get through everything if we

1 keep this process the same as we had thought, so we're
2 changing the process. When we get back from lunch what's
3 going to happen is the staff is going to run through the
4 different categories of investments. And there's going to
5 be some questions in there. We're going to ask again like
6 this, you'll get a chance -- each person will get a chance
7 if they want to, to react to the specific questions that
8 we're raising among each of the activities that we are
9 suggesting we're going to fund and we'll get through it.
10 By 4:00 o'clock we'll be done with the Advisory Committee
11 input into that.

12 We're going to break for lunch. We are
13 reconvening at 1:15 sharp, sharp, sharp. We're going to
14 start talking at 1:15.

15 And is there any other housekeeping that I'm
16 missing? So thank you. I really appreciate it. Go get
17 some lunch, get some air, go look at the -- you had a
18 question?

19 MR. BRECHT: The only housekeeping thing is don't
20 exit out this door over here.

21 (Off the record at 12:10 p.m.)

22 (On the record at 1:19 p.m.)

23 MS. ALLEN: Good afternoon, everybody.

24 MR. BARKER: Okay. For those folks on WebEx, we'll
25 be starting in one minute. For those folks in the room, it

1 looks like Commissioner has brought some sweets. So.

2 COMMISSIONER MONAHAN: Only for people who are
3 sitting down.

4 MR. BARKER: So if I -- Patty, is it okay if I just
5 go through quickly logistics?

6 So we're going to get started and you'll notice
7 that in the slide deck, we will have a number of questions.
8 Please follow on your handout, write down your questions
9 and comments that you have on each individual section.
10 Sections being light duty infrastructure, medium, heavy
11 duty infrastructure, zero, near zero field productions
12 supplied, those would be the topic areas.

13 Our staff are going to read the questions to just
14 spark some conversation. Let us in the -- because we have
15 limited time and we know there's going to a robust
16 discussion, let us run through the entire set. We will
17 take clarifying questions, everything on all of the
18 sections, however you want to ask them.

19 Our staff will stay up here so when a topic that
20 they presented on, when you have questions and comments on
21 that, they will be able to stay up here and to respond to
22 them. And then the Commissioner, obviously, will be here
23 from the dais so -- or at this table.

24 So with that, we'll have Jennifer start us off with
25 a five- to ten-minute presentation on the light duty

1 infrastructure.

2 MS. ALLEN: Good afternoon, everybody, I'm Jennifer
3 Allen, I supervise the Electric Vehicle Infrastructure
4 Unit. This is the light-duty charging infrastructure and
5 eMobility category with 92.7 million proposed for the 2020-
6 2021 fiscal year and 40.2 million for the following two and
7 a half years.

8 It's not moving.

9 So the California Electric Vehicle Project or
10 CALeVIP provides rebates for chargers using a single and
11 consistent application process. The project areas are
12 ranked based in part on the need for additional chargers,
13 what was referred to on the gap on Slide 13 and
14 partnerships.

15 So CALeVIP currently has 71 million in leverages
16 partnership funds but is still oversubscribed. CALeVIP
17 requires between two to five years of active network
18 agreements, which in part helps ensure a working charger
19 for that period of time. Sixty percent of the rebates have
20 been issued in disadvantaged communities.

21 It's not working. Oh, there we go. Okay.

22 The Equitable eMobility Projects are -- provide
23 equitable clean transportation options to disadvantaged
24 communities. And examples of eMobility projects shown here
25 are electric car sharing and chargers placed to service

1 multiunit affordable housing complexes, clean mobility
2 transport such as ridesharing or ride hailing services for
3 rural communities to access the closest metropolitan area,
4 and car sharing services located at centrally located
5 refueling hub stations.

6 We're also looking developing, testing, and
7 demonstrating novel charging technologies. The use of new
8 and advanced technology charging systems and specific
9 applications can test demonstrate commercial liability and
10 grow a robust market in California for these innovations.

11 Examples of our funding include movable solar
12 charging stations for Caltrans personnel at sites where
13 there was no or inadequate electricity and curbside
14 charging in Burbank where there was excess electrical
15 capacity.

16 The San Francisco Municipal Utility District loans
17 out mobile chargers shown here at the bottom for both
18 vehicle charging and for onsite electricity where none
19 exist. So the other ones are examples of projects that we
20 have had both stakeholders and companies come to us to
21 request the potential for funding opportunities. And these
22 include automated and inductive charging.

23 So the key questions for light duty electric
24 vehicle charging infrastructure and eMobility is
25 frontloading our investments in this category the right

1 approach? How should we balance or prioritize project
2 types? And these would be -- this charging infrastructure
3 deployment, equitable eMobility projects, and innovative
4 and pre-commercial charging technologies.

5 MR. BARKER: Thanks, Jennifer.

6 Esther.

7 MS. ODUFUWA: Good afternoon. My name is Esther
8 Odufuwa with the Freight and Transit Unit. I'll be talking
9 about the investment for medium duty and heavy duty.

10 The Investment Plan proposes 20 million in the \$20
11 million in fiscal year 2020-2021 for medium duty and heavy
12 duty zero emission vehicles and infrastructure.

13 This amount of funding is a decrease from last year
14 that had 30 million, however, the plan also proposes to
15 increase the funded category over the next two and a half
16 years to almost \$150 million.

17 Now the reason for the decrease in funding next
18 year and the increase in funding in the following years is
19 due to the work we are currently doing in the program.
20 This year the clean transportation program will administer
21 nearly \$50 million in funds for a range of zero emission
22 vehicle infrastructure projects to address a wide variety
23 of (indiscernible) needs.

24 Now next year smaller amount of funding which you
25 can see for the 2020-2021 for 20 million will help us to

1 administer the funds completely and analyze the project's
2 effectiveness. This will also give us the time to better
3 align our infrastructure investments with the vehicle
4 investments coming out of the Air Resources Board. Staff
5 hopes to use the project's successes and lessons learned
6 from the 50 million in projects to replicate successful
7 projects in the years following 2021 with the increase of
8 amounts of funding.

9 Now Staff's goal is to effectively meet the growing
10 needs of medium and heavy duty zero emission vehicles on
11 the charging infrastructure as well as demonstrate the
12 State's commitments to improving air quality.

13 Now as a background to this following category, the
14 freight and transit vehicles appeal out to the California
15 economy providing the necessary form shields for domestic
16 good move, international trade, mass transportation, and
17 other essential services. The medium duty and heavy duty
18 vehicles which are defined as vehicles with a gross vehicle
19 weight rating of above 10,000 pounds. They represent a
20 small share of California's registered vehicles so which
21 accounts for about 1 million out of 31 million vehicles or
22 about 3 percent of California vehicles.

23 The medium duty and heavy duty vehicles
24 additionally account for 70 percent of state's on road NOx
25 emissions and 45 percent of on road diesel (indiscernible)

1 matter emissions. However, this small amount of vehicles
2 is responsible for about 21 percent of on road GHG
3 emissions in the states. And this is because of the
4 comparatively low fuel efficiency and the high number of
5 miles traveled per year.

6 For this one (indiscernible) the medium and heavy
7 duty vehicles that represent a significant opportunity for
8 us to reduce GHG emissions and criteria emissions. In
9 addition I would say that California transit agencies are
10 (indiscernible) and maintain about 12,000 transit buses and
11 the current zero emission bus fleet is also growing.

12 However with the CARB's innovative clean transit
13 regulation, which cited statewide requirement for public
14 transit by 2040, public transit agencies bus fleets must be
15 entirely zero emission buses.

16 To advance some of the (indiscernible) to medium
17 duty and heavy duty, Staff held a workshop of the Energy
18 Commission on October 25th, 2019 to solicit feedback from
19 stakeholders on several medium duty and heavy duty ZEV
20 infrastructure concepts. And there were five concepts.
21 These concepts will focus on in the upcoming year and we
22 hope to expand upon in the next three and half
23 (indiscernible) cycles.

24 So as an overview for Concept Number 1, this
25 concept proposes to focus on ZEV infrastructure for freight

1 demonstration vehicles. And for this concept, we have
2 coordinating with the Air Resources Board on potential
3 joint projects.

4 For Concept Number 2, this proposes to support
5 transit with zero emission infrastructure. And earlier
6 this morning we heard from the committee about considering
7 (indiscernible) gaps and focusing on areas that are not
8 covered by other programs. We are definitely considering
9 on that Concepts 1 and 2, life scale demonstration for
10 freight and transit fleets.

11 Now for Concept Number 3, this proposes to focus on
12 ZEV blueprints or what you refer to as infrastructure
13 planning projects. And we do have some of examples
14 pictured here. At the top left is a Cavotec electric
15 rubber-tyred gantry out of Port of Long Beach
16 (indiscernible) which is funded. Below is the Proterra
17 electric transit bus at San Joaquin Region Transit
18 district. And on the right, we have an example of the
19 blueprint for the part of Long Beach.

20 And Concept Number 4 is proposing to support
21 deployment of hydrogen refueling infrastructure for rail
22 and marine applications. And this will be coordinated with
23 the CEC's Energy Research and Development Division.

24 Then we have Concept Number 5 which proposes to
25 fund projects that will demonstrate innovating electric

1 (indiscernible) charging and hydrogen refueling solutions.
2 And examples will include conductive and inductive charging
3 and also pantograph.

4 Additionally, Staff is evaluating a block grant
5 concept for medium duty and heavy duty ZEV infrastructure
6 which will similar to the CALeVIP that Jennifer described
7 on the light duty side. And the idea behind this concept
8 is to be able to streamline the application process for
9 fleets that are converting to zero emission records.

10 The block grant recipient will be responsible for
11 identifying ZEV infrastructure opportunities and
12 implementing projects for installation. This concept could
13 potential partner with vehicle (indiscernible) program such
14 as the ARB's Hybrid and Zero-Emission Truck and Bus Voucher
15 Incentive Program popularly referred to as HVIP.
16 Now the 20 million from the 2020-2021 funding allocation
17 could be used to support this block grant concept.

18 Now additionally in the medium duty category,
19 school bus replacement program has funded electric school
20 buses. We allocated \$75 million to replace old, dirty,
21 (indiscernible) school buses and we were able to replace
22 more than 230 buses with -- that have vehicle to breach
23 capabilities. However, applications for over 1500 buses
24 were received from school districts throughout California
25 and this is a small amount compared to the estimated 15,000

1 school buses, buses that are currently on the road.

2 Now to be able to fund this remaining buses on the
3 application list, more than \$400 million dollars is needed.
4 Now if you look at the Investment Plan, no funded is
5 proposed for school buses in the current Investment Plan.

6 Now the key questions for this group will be: Is
7 the funding approach that we're proposing with a decrease
8 in the 2020-2021 and the increase in the following two and
9 a half years the best approach for the medium duty and
10 heavy duty sector?

11 Secondly, which of the following concepts should we
12 prioritize? And we have this list, we went through all the
13 concepts, which ones should we prioritize? Or are there
14 others that we should consider as we go along?

15 And finally, how should we account for the impact
16 of current and (indiscernible) medium duty, heavy duty CARB
17 regulations which we've all been talking about this
18 morning? For example, the innovative clean transit or the
19 adverse clean (indiscernible)?

20 Thank you.

21 MR. BARKER: Thanks, Esther.

22 Phil?

23 MR. CAZEL: Good afternoon. Phil Cazal, Air
24 Pollution Specialist with the Hydrogen Unit. Firstborn of
25 three, so you can figure that out.

1 So the \$20 million proposed allocation for '20, '21
2 under hydrogen refueling infrastructure aligns with the AB
3 8 requirement to allocate \$20 million or 20 percent of
4 funds allocated by the legislature until there are at least
5 100 hydrogen stations available.

6 And to date, there have been 62 stations funded, 44
7 of those are open retail, 18 are still under construction.
8 And on the map you can see the locations, they're clustered
9 in areas that are high density, high population areas.

10 There are a few stations that are scattered out that that
11 are considered destination or connectors. And this mapping
12 has been closely correlated and coordinated with CARB who
13 does modeling and mapping for station locations. I should
14 mention 11 of the existing funded stations are in
15 disadvantaged communities right now.

16 So and also for the current solicitation which is
17 I'll mention a couple of times, there's an open
18 solicitation for our next round of funding. There are
19 several areas highlighted throughout the state that we've
20 noticed will require additional capacity even though there
21 are a number of stations nearby. So it's not always just a
22 spreading of the stations we're trying to backfill in
23 capacity where those stations are overused right now.

24 So then going down to the chart, this shows the
25 funding of stations over the years. And as the numbers

1 increase, the capacity increases. The blue lines are the
2 funded stations, the blue plus the red are the funded, and
3 the red is just the trend of stations as they've become
4 open retail.

5 So the current stations can support 35,000 fuel
6 cell electric vehicles and that's in contrast to today
7 where there's a little over 7600 on the road, and that's as
8 December 2019 DMV registration data. And CARB is
9 projecting 48,000 fuel cell electric vehicles by 2025.

10 And also by 2025, the Energy Commission expects to
11 fund a total of at least 100 stations to meet the AB 8
12 goal. And that number of stations is expected to be able
13 to support over 50,000 fuel cell electric vehicles at that
14 time.

15 And then not on this slide but just an issue that
16 we had over the last year between June and October 2019,
17 there was a hydrogen supply disruption that affected the
18 gaseous supply of hydrogen. And this caused many drivers
19 to be unable to refuel because of inability of the hydrogen
20 to be produced and then delivered to the number of stations
21 that were in need.

22 And so this supply chain challenge is being
23 addressed by industry. And recently, several large
24 industrial gas companies such as Air Liquide, Air Products,
25 Praxair, and Iwatani announced plans to invest and make

1 more hydrogen available to the refueling stations
2 specifically. And this is in addition to recently funded
3 renewable hydrogen production facilities that were funded
4 under the clean transportation program's low carbon fuel
5 production area.

6 So the other change in the stations as they have
7 evolved over the years is the newer stations are coming out
8 with the liquid technology which is a completely different
9 supply chain.

10 So then over the course of funding stations, the
11 Energy Commission has essentially funded stations based on
12 daily capacity which translates into the number of fuel
13 cell vehicles that a station can support. And the small
14 early stations could each support about 250 fuel cell
15 electric vehicles. And the larger stations as they have
16 been applied for and awarded recently are able to support
17 up to 1400 fuel cells each.

18 And so this increase in capacity kind of contrasts
19 with the amount of funding, so the funding level for each
20 station has been between 1.5 million and 2 million over the
21 years. And so even though that has been a relatively
22 narrow range, what we've seen is that the stations that we
23 are funding are much larger and much more able these days.

24 The larger stations also had multiple fueling
25 positions. They can store more hydrogen onsite and some as

1 I said are using the liquid technology which is just a
2 completely different animal.

3 So then going to the chart, the chart shows the
4 timing for station development. And so the bar to the far
5 left is the earliest stations that were funded and then
6 going toward the right. So you can see an improvement in
7 the time that it's taken to get a station off the ground
8 and open. The most dramatic improvement has been the green
9 part of the bar there which is the time from initial
10 funding until the initial permit was filed. So one reason
11 for this technology is that the technology was new to fire
12 and permitting agencies and so there was, you know, took
13 longer for them to get on board and gear up for getting
14 permits and plans evaluated for these stations. So.

15 A lot of these delays were overcome with early
16 outreach by Energy Commission and the Governor's Office of
17 Business and Economic Development. And also the station
18 developers became much more aware and better at interfacing
19 with the legal local agencies they have to deal with for
20 permits.

21 So just as an aside, the fastest station to get a
22 permit was recently funded and it was just over 200 days to
23 get its permit and that was in Citrus Heights, that opened
24 about a year ago, so we are seeing improvement there.

25 So the current solicitation as I mentioned was

1 released in December 2019, and it provides 115 million in
2 grant funding and this was designed to span from 2020 until
3 the end of the Clean Transportation Program in 2024. And
4 based on stakeholder comments, this -- and discussion from
5 several public workshops, this approach will allow
6 developers to achieve economies of scale and reduce
7 equipment costs. And out of that 115 million,
8 approximately 45 million is available for the first round
9 of funding and that's from prior funding allocations that
10 have already come through and been approved.

11 So eligible costs include revealing infrastructure
12 for transit bus and commercial fuel cell vehicles and this
13 is expected to increase individual station throughput which
14 again can achieve economies of scale for the developers.
15 And this is because of increasing interest in fuel cell
16 technology and heavy duty long haul applications as well as
17 fuel cell electric buses that can help transit agencies
18 meet the innovative claim trans regulation.

19 And as well, preference points are available for
20 projects serving these commercial fuel cell fleets and bus
21 fleets as long as it does not diminish the light duty
22 customer experience. So again this is based on industry
23 input, we believe the complimentary development of light
24 duty and heavy duty infrastructure can bring down fuel cell
25 component costs and hydrogen fuel prices across the board.

1 So the key questions to think about for this
2 section since AB 8 requires 20 million annually until there
3 are at least 100 stations, once we reach that goal of 100
4 stations, should funding continue?

5 And then how much should the program focus on light
6 versus heavy duty hydrogen infrastructure, especially given
7 the new regulations that we know are coming down the line?

8 MR. BARKER: Thanks, Phil.

9 All right. Andrew.

10 MR. HOM: Good afternoon, everybody, Andrew Hom
11 with the Advanced Fuel Production Unit.

12 The proposed allocation for the zero and near zero
13 carbon fuel production and supply category is \$10 million
14 for fiscal year 2020-2021, and \$25 million over the next
15 two and a half years.

16 Please bear with me, I know there's a lot of
17 information on this slide. Here's a bit of an overview on
18 the low carbon fuel project benefits to date. For context,
19 California only represents a half percent of the world's
20 population but consumes almost five percent of all the
21 biofuel in the global market.

22 For the entire transportation market for
23 California, about 7 percent consists of low carbon fuels.
24 This 7 percent displaced 1.7 billion diesel gallon
25 equivalence of fossil fuel in 2017. Of the 1.7 billion

1 gallons of biofuel that was consumed in California, the CEC
2 has funded 171 million gallons of that as in-state
3 production. These 171 million gallons represents only five
4 percent of California's total diesel demand so the
5 remainder of that fuel was imported from out of state.

6 Out of the total waste base low carbon fuels that
7 were produced in California, the CEC has funded almost 85
8 percent of this production. The average carbon intensity
9 of these fuels are very low, averaging 11.2 grams of CO₂
10 equivalence per megajoule or 90 percent lower than diesel.
11 This results in a reduction of 4.6 million metric tons of
12 CO₂ equivalence per year or about the same as 1 million
13 passenger vehicles.

14 Besides the GHG reductions, these projects also
15 provide large economic benefits by creating jobs many of
16 which are located in disadvantaged communities. Over \$1.1
17 billion in public and private investments have been made
18 statewide with \$209 million of that total coming from the
19 CEC.

20 And lastly, out of the \$209 million that have been
21 awarded, \$152 million of that or 73 percent have gone to
22 projects that were located in disadvantaged communities.
23 Please note that the summary of these benefits include a
24 \$12.5 million one-time infusion from greenhouse gas
25 reduction funds.

1 Here are some examples of types of fuel production
2 projects. And for clarification purposes, the title of
3 this slide is "Low Carbon Fuel Production," but the funding
4 activity is titled, "Zero and Near Zero Carbon Fuel
5 Production." Zero and near zero carbon fuel production is
6 meant to relate to the carbon intensity of the fuel and not
7 emission of the fuel. So near zero production could also
8 include fuels that have a negative carbon intensity.

9 With that said, there have been four main
10 categories for fuel types which include gasoline
11 substitutes, diesel substitutes, biomethane, and renewable
12 hydrogen. The second column represents examples of
13 different fees (indiscernible) to produce each type of
14 fuel.

15 So these are the few key questions that we'd like
16 the committee to address. First, the Investment Plan
17 intends to fund zero and near zero carbon fuel production
18 which includes negative fuels. These fuels may be used in
19 zero-emission vehicles or combustion vehicles. How should
20 we balance GHG emission reductions and technology
21 flexibility?

22 Second, we have traditionally funded grants for
23 biofuel production facilities but we are now considering
24 expanding to address system barriers like the lack of
25 blending equipment for biodiesel. Is this the right

1 direction?

2 And lastly, what is the best way to scale up in-
3 state production of renewable fuels? Are there other
4 funding mechanisms besides grant facilities that could be
5 used a better scale of the market and allow California
6 businesses to thrive, like loans or loan guarantees?

7 Thank you.

8 MR. BARKER: Thanks, Andrew.

9 Larry. Larry's going to cover the last two
10 categories in the Investment Plan.

11 MR. RILLERA: Good afternoon, everyone. My name is
12 Larry Rillera. I'm Staff with the Fuels and Transportation
13 Division, and I lead our teams in ZEV manufacturing, work
14 training and development and equity efforts.

15 Our manufacturing portfolio has developed over five
16 separate solicitations since program inception for over
17 \$54 million in project funding. Staff had note that match
18 share provided by companies is significant, and over 700
19 direct manufacturing jobs were created with these projects.
20 Additionally, there is much variability in terms of product
21 types, the status of commercialized technologies, and
22 investment capacity of the companies.

23 California's home to many companies that
24 manufacture commercialized light, medium, and heavy duty
25 ZEV, ZEV components, and ZEV infrastructure. California's

1 zero emission supply chain benefits are several fold.
2 Proximity to customers and markets, location of private,
3 capital, and investors, and census provided by the state to
4 help offset the cost of procurement and colocation near
5 equity communities for workers and environmental benefits
6 that accrue to product development.

7 Staff would offer a few reflections on the
8 manufacturing portfolio to date. A couple of them the
9 transportation program still provides a significant role in
10 de-risking companies and projects as companies scale.
11 Companies mature under the Clean Transportation Program.
12 We are seeing an increase in private investors and amount
13 of capital invested. Increase in strategic investors and
14 partnerships. Increase in scale production for California,
15 the U.S., and global markets. We are also seeing an
16 increase in M&A or mergers and acquisitions.

17 I will now switch gears and address workforce
18 training and development. As noted here, our workforce
19 investments were approximately \$29 million through fiscal
20 year 2016. The total up-to-date investment is about
21 \$33 million. Staff would note that during the initial
22 development of the Clean Transportation Program, most of
23 the funding went through state entities. This was
24 initially necessitated to leverage existing state programs
25 and to learn about workforce training.

1 There are several current workforce projects that
2 are at this this imaginative intersection of clean
3 transportation, equity, and workforce. There was already a
4 considerable return on this nominal investment by the Clean
5 Transportation Program. First, the clean transportation
6 training project is focused on ZEV curricula at community
7 colleges in the state, located in equity communities by
8 ethnic-serving institutions. We'd note that several of the
9 colleges will focus on not just plug-in battery technology
10 but also on ZEV heavy duty and fuel cell curricula as well.

11 The second project is focused on solely on
12 developing ZEV curricula and programs at high school
13 automotive programs, at Title I schools, and in equity
14 communities. Twenty-seven high schools are in the process
15 of establishing what I term Auto 3 ZEV technology.

16 The third project, the CEC's school bus replacement
17 program, as was alluded to earlier, is providing workforce
18 training component. The electric school bus training
19 project is a separately focused effort on training for
20 school bus maintenance and service technicians as well as
21 bus operators. This training is part of a longer term
22 strategy to link the high school ZEV Auto 3 programs in the
23 ZEV curricula at the community colleges.

24 Finally, the Energy Commission with the Governor's
25 Office of Business and Economic Development and their

1 Workforce Development Board is addressing freight workforce
2 under the California's Sustainable Freight Action Plan. As
3 a result, Staff is in the midst of planning a sustainable
4 freight foundation certificate pilot project for managerial
5 occupations with CSU Long Beach industry and labor.

6 In terms of the key questions, what considerations
7 and priorities should guide the program's investment into
8 the ZEV manufacturing supply train?

9 Second, what approaches or priorities should we
10 apply toward future investments and workforce development
11 and training?

12 And lastly, what are choosing to fund manufacturing
13 and workforce development in alternating years, is this the
14 right approach?

15 Thank you.

16 MR. BARKER: Thanks, Larry.

17 So if I could get Claire to come back up for the
18 middle, we'll take questions in a very similar fashion,
19 take your name card, make eye contact with her.

20 Our folks are going to stay up here, if there's any
21 specific questions. And then -- and when you start your
22 comments, if it's helpful, let us know which slide or set
23 of questions you're commenting on and that will help us all
24 focus.

25 So I saw Michael raise it first. So let's start

1 with Michael Pimentel.

2 MR. PIMENTEL: Thank you. Once again, Michael
3 Pimentel with the California Transit Association.

4 My remarks are going to be focused primarily on
5 Slide 27, the questions about the medium and heavy duty
6 zero emission vehicle and infrastructure set aside.

7 As I a mentioned early, we do want to redouble on
8 the notion of recognizing the shortfalls that do exist.
9 Currently, in other programs one was be complementary as
10 much as possible. I think if you data points are worth
11 noting on here and why it may speak to the decrease in
12 fiscal year 2020 and 2021 being wrongheaded is that
13 California Resources Board recently moved to excise from
14 the HVIP program, the voucher enhancement for the HVIP
15 program. That means that for transit agencies, one of the
16 dominant funding sources for funding infrastructure was
17 taken off line.

18 And I'd mentioned earlier that the investment on
19 the utilities programs set aside some money for investing
20 in zero emission infrastructure for transit buses, for each
21 of the programs under PG&E and SCE, there was a 15 percent
22 set aside. What we're finding is that some of the
23 requirements that were built into the proposed decision
24 that authorized -- or I'm sorry, within the decision that
25 authorized those investments are requirements for number of

1 sites that PG&E and SCE have to service to be deemed per se
2 reasonable. And we're finding that on the ground, the cost
3 of individual projects is significantly higher than what
4 PG&E and SCE built in to the budgets that justified that 15
5 percent set aside.

6 That means that rather than making the types of
7 investments they intended to, just really to do fairly
8 significant investments and make ready infrastructure,
9 they're having to scale back the amount of funding they
10 provide to any one site, meaning transit agencies are going
11 to get less money from the investments, and again, that
12 suggests that there was a shortfall in the very near term.

13 I'd also mention that as part of the transportation
14 electrification framework, the IOUs would be compelled to
15 introduce new transportation electrification plans, those
16 would be introduced in 2022. And until that time and until
17 the CPUC acts on approving future applications, there will
18 be a funding shortfall into the sense that CEC is being
19 viewed by the state as the dominant source of funding. For
20 these purposes, we really have to find a way to increase
21 funding for those years where funding looks to be lacking.

22 And that is separate from the general policy
23 contacts that the state in passing the innovative transit
24 will really emphasize that it is a V-check technology, I
25 think that serves as good justification to try to make as

1 much investment as possible in the transit sector in the
2 near term so that benefits can accrue to other sectors that
3 are looking to electrify.

4 Let's see here. Under 2, they do ask, you know,
5 what sector should be prioritized. I think my remarks here
6 really do emphasize that the transit bus infrastructure
7 needs to be focused for the CEC. I'll step back and say
8 that we're looking at what the infrastructure needs as
9 being two-fold. One is there is a need for tremendous
10 investment and doing these large-scale projects that will
11 prove the technology at scale. Right now the largest trans
12 bus fleets that we have that are all electric have about 40
13 buses in operations.

14 We don't yet know what happens when a transit
15 agency endeavors to have 100 buses, 200 buses, or L.A.
16 Metro's 2500 buses. And so we really do need to focus on
17 resources there to understand what types of challenges
18 might be on the horizon that aren't yet clear. And the CEC
19 can be a good partner in that space.

20 And the second area of focus for these investments
21 should be, and I do want to show some strong support for
22 the block grant concept. We are looking to how best to
23 move monies out the door quickly. The HVIP model that the
24 ARB has used has proven to be very effective at getting
25 dollars out the door. If we could see something similar on

1 the infrastructure end, have them on the line in terms of
2 funding cycles, I think that would be the best case
3 scenario in terms of making sure that agencies, transit
4 agencies as they're entering the market and wanting to make
5 procurements know where they can get funding for buses in
6 addition to infrastructure.

7 And so with that, I'll end my remarks. And I went
8 a bit long there, but if there are questions, I'd be more
9 than happy to answer anything from CEC Staff.

10 MR. BARKER: Those are all great. Thanks.

11 Dorothy, (phonetic) who do we have? Casey, all
12 right.

13 MR. GALLAGHER: All right. Good afternoon. Casey
14 Gallagher, California Labor Federation.

15 My remarks will be focusing on the manufacturing
16 and workforce development section of the plan. And I will
17 focus on the questions. But I may kind of waver a little
18 bit, but it's going to be structured by the questions, but
19 thank you for that.

20 So number one within the manufacturing and
21 workforce development component is consideration and
22 priorities, should be guide the program's investment and
23 ZEV manufacturing.

24 From our standpoint, we'd like to see focus on high
25 road procurement. A policy that was almost kind of added

1 into the SB 100 school bus replacement, something that
2 focuses on supporting and rewarding employers doing the
3 right thing by the workers and also for our communities.

4 We stand that California money should always lead
5 to
6 good California careers. Always supporting some sort of
7 high road advancement. Procurement can then be focusing on
8 operation within the state or family sustaining wages or
9 more scoring going toward fair scheduling will continue as
10 direct employment, health and safety training, career
11 opportunities and workforce development within the
12 manufacturing plant or within the company and basically
13 workers actually having a voice on the job leading up to
14 almost collective bargaining or actually having the right
15 to collective bargain.

16 So that being said, just kind of can go on and on
17 if certain kind of a matrix that can go towards a high road
18 procurement policy, I'd like to see that going, especially
19 with this little, like 10 million's really not that much.

20 On the second question, so what approaches or
21 priority should be applied to the future? Two things that
22 I would love to see and also you need to reflect it within
23 the draft plan is the role of organized labor in workers in
24 California and also worker's voice. Worker voice is a key
25 component in a lot of these things, especially when it

1 comes to training.

2 On page 59, one of the things I want to highlight
3 of the draft staff report is that the element that was
4 mentioned about Santa Clara Valley Transportation
5 Authority, everything created within that was in
6 partnership with the Amalgamated Transit Union Local 265.
7 And it was in partnership that the agency and the union
8 could actually figure out what are the broken pathways?
9 What are the different forms of advancement? How can we
10 actually figure out equity, equitable opportunities to the
11 communities of actually bringing them in?

12 And that was kind of the source to actually
13 creating the actual DA as apprenticeship program when you
14 have an understanding that you need to have industry
15 stakeholders to create apprenticeship programs, and
16 industry stakeholders meaning the employers and also labor
17 of the workers involved with this. And I think also
18 outlining the importance of the California Workforce
19 Development Board in this, because this project that's
20 highlighted in paragraph 4 actually highlights the high
21 road training partnership fund that's actually based on now
22 it's GGRF, but before that, it was cap and trade dollars
23 that was focusing on three main elements being equity,
24 climate, and jobs and job quality, basically.

25 And that project was actually also funded by this.

1 So it's almost like all these different pieces all coming
2 together and the role partnership of state agencies being
3 ETP being one of them, the chances office supply and the
4 CAI grant to help kind of lift up the 200-plus apprentices,
5 the CWBD, and also all educational partners.

6 Not to go into too far into the weeds, but yeah, I
7 think this is a key point of understanding the future of
8 these things that it's through our partnerships and these
9 high road partnerships that we develop. Through our
10 agencies across the state or all high-road employers at the
11 port that it would be great to see that so -- there's not
12 very much funds going through this, so 6.5 million in a
13 scheme of workforce development is not much. But what to
14 do is complement in this high road programs that already
15 exist.

16 For example, I see Port of Long Beach in here.
17 Someone has mentioned that the machinist union actually has
18 a programs that can actually be uplifted at both the Port
19 of Long Beach, Port of L.A., and also Port of Oakland.
20 That's for everything from crane mechanics to diesel
21 mechanics, you name it.

22 Those already existing -- labor already has
23 programs that's already been created. How can we figure
24 out ways of actually supporting this all spending these
25 high-road opportunities?

1 That being said, before I go deep into
2 apprenticeship talk and such. I think the main thing is
3 this is not a critique. I would like to actually -- and
4 the Labor Federation would like to assist the CEC in any
5 way that we can focus on organized labor's involvement in
6 this and also how can worker voice actually play a role.

7 These technologies keep on changing. Like
8 manufacturing keeps on changing that producing new and more
9 and more products and how can we actually utilize that
10 knowledge from folks on the shop floor to actually lead the
11 future generations that desperately need these kind of high
12 road careers.

13 On equity standpoints, I've also talked about this.
14 I probably mentioned the statistic before in probably other
15 advisory committee meetings but when I'm talking about
16 public transportation and pathways into these good jobs,
17 the public sector in the state of California has
18 historically benefitted communities of color, disadvantaged
19 populations, and particularly women of color into pathways
20 and to good family sustaining jobs. So supporting this and
21 the path, the partnerships that we create with our agencies
22 in organized labor is huge.

23 That being said, I'd like to commend you on the
24 statement very early on in the draft report that's
25 basically stated that CEC is committed to ensuring all

1 Californians have opportunity to participate and benefit
2 from programs and services. And the California Labor
3 Federation supports you on this.

4 Thank you.

5 COMMISSIONER MONAHAN: Thank you. So Kevin and I
6 have been doing the math up here. We want to make sure
7 that everybody gets a chance to speak. So. Oh, that's --
8 it's fine. But if you could try to hold your comments to
9 around three minutes and then if somebody had said
10 something previously, just say I agree with that.

11 MR. BARKER: Steve.

12 MR. CLIFF: Thanks. Steve Cliff, the California
13 Air Resources Board.

14 First, thank you, Commissioner, for the cookies
15 even though there was no milk. Oh, sorry.

16 COMMISSIONER MONAHAN: It's a classic remark from
17 the Air Resources Board.

18 MR. CLIFF: We always want more.

19 Second, I just want to say how much I appreciate
20 the partnership and the work between our respective staffs
21 on developing not only this year's program but especially
22 for the work that you guys have been doing on the
23 infrastructure development related to clean mobility and
24 clean transportation in general. So, you know, we're
25 certainly committed to continuing that work.

1 And I think one of the things I wanted to highlight
2 in particular is the eMobility and those programs, CARB has
3 some specific programs that we're doing around eMobility
4 and some new mobility pilot projects. And I think it's our
5 hope that we can figure out a way to coordinate the
6 infrastructure development and the technology development.
7 So we're certainly committed to that.

8 We want to make sure that there's good
9 opportunities for funding the infrastructure. And I don't
10 know if that's a challenge because of the way we've done
11 our program with kind of a first come, first serve
12 approach, but we're certainly open to figuring out the ways
13 to best leverage the two programs and certainly focus on
14 equity is really critical. So we very much support that
15 work.

16 Thanks.

17 MR. BARKER: In the back.

18 MR. O'DEA: Hi, Jimmy O'Dea, Union of Concerned
19 Scientists.

20 This is an incredible overview of really great work
21 that the Energy Commission's doing. I think it shows that
22 the agency is on the right track for a lot of these
23 projects.

24 Just some specific comments, I think the dollar
25 amount in the eMobility programs is, you know, those

1 projects are a million dollars or so, just what we're
2 seeing in trends in mobility. I think that there could be
3 a greater need for those projects and certainly the
4 projects that have invested in already have been
5 successful.

6 I'd be curious to learn a little bit more about the
7 blueprint concept just to evaluate what's behind that.
8 Definitely support ideas around novel charging. Light duty
9 has been -- sounds like invested in but I think heavy duty
10 there's a lot of opportunities. We hear just challenges
11 that fleets are having in thinking about using their space
12 effectively in, you know, their parking garages. And I
13 think that there's a whole industry waiting to be developed
14 and take off in helping fleets, you know, manage these
15 challenges. And I don't see a lot of investment in that
16 area yet. And so this seems like a unique pot of money
17 that could really address some of those challenges.

18 On the light duty side, I've heard a very positive
19 story that the Energy Commission's investments in charging
20 infrastructure have been much more cost effective than
21 utility investments. And not to slander the utility
22 investments at all because we're very supportive of those
23 as well, that maybe just we'd love to see where the Energy
24 Commission is getting more efficiency out of these
25 investments and taking those to the utility so that they

1 can hopefully be more effective in their investments as
2 well. And maybe it's an easy explanation, I just am not
3 aware of that sort of the Energy Commission for that
4 accomplishment.

5 Certainly support hydrogen infrastructure on
6 medium, heavy duty side, I'll just plus that up. That's an
7 area we see a lot of potential for. And I'll tie that in
8 with the interest and direction for renewable fuels as laid
9 out in this program. I think that renewable hydrogen on
10 the medium, heavy duty side, you know, large volumes of
11 fuel. I would say if investments are being made in
12 hydrogen infrastructure, they should be associated with,
13 you know, onsite renewable hydrogen production and
14 combining those two goals in similar projects. And we've
15 seen that in projects, AC Transit has onsite renewable
16 hydrogen, et cetera.

17 The last thing again I'll plus up. I see a lot of
18 bang for the buck in this workforce development and
19 manufacturing. You had a slide that was just slashed
20 through with all of the logos of all these companies that
21 have been invested in. I mean, California is the leader in
22 this industry because of these investments and because
23 policy is driving. And so getting these companies off the
24 ground, they're pushing the big companies to take action.
25 I can't understate -- can't overstate the impact of these

1 companies. And we need more, we certainly need more.

2 And I'll say one, and we're hearing workforce, you
3 know, issues. Fleets want their technicians to be trained.
4 They're unsure how to, you know, get their technicians
5 ready for these new technologies. I would maybe put a
6 little pressure on companies to come with matching funds.
7 You know, if you're Daimler, or Cummins, or Tesla, that if
8 they're benefitting from employees that they should come
9 with maybe some matching funds but certainly support those
10 programs.

11 And the last one on the battery manufacturing, I
12 would maybe put a plug in for manufacturing around battery
13 recycling and reuse. That's certainly an area that we hope
14 to see there will be a need for as we get a lot of these
15 technologies on light and heavy-duty side. And at some
16 point they're going to come off the road. And I would hope
17 that California is a leader in companies thinking about
18 what to do with those batteries, both on the recycle and
19 the reuse. So investing in companies to do that in the
20 state would be I think a very high bang for the buck
21 investment with this money.

22 MR. BARKER: Thanks.

23 Okay. Russ.

24 And I would just one thing put a plug in, it's not
25 ready yet but we are hoping to make aggregate data on

1 CALeVIP costs available soon.

2 MR. TEALL: Russ Teall, recreational voter.

3 I have trouble saying that with a straight face
4 because I have so much experience in other types of
5 renewable fuels and energy.

6 And first of all, this is a tremendous effort, the
7 staff report is really comprehensive and goes through all
8 the alternatives. And are we able to submit written
9 comments later? What --

10 MR. BARKER: Yes. So we'll -- Patrick will be able
11 to -- maybe if you could just pull that slide up. About
12 two weeks from now, March 17th written comments are welcome
13 by then for the docket. So feel free to follow up.

14 MR. TEALL: So in your -- I'll limit my comments to
15 the biofuels recommendation. I know most of the people
16 that have been involved in the biofuel industry throughout
17 the world and I think that it's good that you're stopping
18 funding for individual plants and focusing funding on
19 infrastructure, especially blending.

20 I was talking to Tim Olsen over lunch and we went
21 in in 2008, 2009 to see Jim Boyd about blending
22 infrastructure for biofuels. And if that had been done at
23 that point, all the blending, racks, and individual jobbers
24 would be covered now. So there's an acute need for
25 blending the different types of renewable diesel, HRD,

1 biodiesel, DME. I stopped at Love's with Ray on the way up
2 and we filled up with 100 percent biomass diesel at a
3 Love's truck stop. And that should not be unusual, that
4 should be typical for California.

5 MR. BARKER: Thank you, Russ.

6 Eileen. Russ, can you --

7 MS. TUTT: Thanks, Eileen Tutt with the California
8 Electric Transportation Coalition.

9 I just have a couple of comments that are
10 responsive to the questions on various slides.

11 First I think I just want to say that you mentioned
12 that you want to leverage the investor-owned utility and I
13 would say public-owned utility investments and
14 infrastructure.

15 But I just want to say that as we work on the
16 medium and heavy-duty side, what we're learning is that the
17 customer side costs are quite high. So even though the
18 IOUs are investing, I would say quite effectively, Jimmy,
19 in infrastructure, I think that there are real challenges
20 that weren't anticipated in that the customers that we're
21 talking about here are small fleets who may not own the
22 sites that they -- that they need the infrastructure built
23 on. It may be there may be barriers to them and then --
24 and they just can't afford the additional costs.

25 So the degree to which this investment can use --

1 so you can't just see well, that side gets IOU money so it
2 doesn't need -- if you can say the IOUs or the POUs are
3 investing in infrastructure at this medium and heavy duty
4 site and there's still additional need. That would be, I
5 think, really important. Because what we're learning is
6 it's a big barrier, a very big barrier, and we need to
7 overcome it with all of the regulations that are coming
8 down the pike from CARB.

9 And then I do want to say, somebody -- I think it
10 was Pimentel, Michael, you mentioned the transportation
11 electrification framework. We are very, very worried about
12 that. That could cause a delay in infrastructure
13 investments of five to six years. It could freeze IOU
14 investments. That would be huge. It's just I want to come
15 in separately and talk to you about that because we're very
16 concerned about it.

17 And then in terms of the medium and heavy duty
18 infrastructure needs, I feel like -- I want to say I think
19 we do need to probably invest more in medium and heavy duty
20 early, but I honestly don't have -- we don't have the
21 analysis and data to know how, what the gap is there. So
22 you had -- we had a lot of information on light duty, we
23 have very little on medium and heavy duty.

24 So even though I think it's probably wise, I don't
25 have the analytics to back up what that breakdown that

1 must -- needs to be.

2 Sorry, Mary Solecki, but I think that the
3 alternative fuel side, when I looked at the slide and the
4 questions, does actually include renewable electricity,
5 even though it's not spelled out in our report. So thank
6 you, I think that's included.

7 And then I agree with the workforce training, I
8 really liked what the California Labor Association had to
9 say so I won't repeat that.

10 I do think that this is -- I am so impressed by
11 this plan and the three-year look at -- I think that has --
12 I just -- it's long needed. What's also needed is a little
13 more time to go through this. So we're going to -- I'm
14 going to be putting together comments over -- before the,
15 but we will have substantial comments.

16 Overwhelmingly I want to say thank you for that
17 kind of vision because it was much needed and I wasn't
18 expecting it. So really appreciate it and I will take the
19 time to provide more substantial written comments.

20 Thank you.

21 MR. BARKER: Thanks, Eileen.

22 Just two real quick points, one of the beauties of
23 CALeVIP does allow for the pancaking of different
24 incentives. So at least on the light duty, it's we have a
25 program that allows for to pancaking utility investments

1 with some of ours. And so having something similar to that
2 on the medium and heavy duty, we at least have something
3 that we can base that on.

4 And then I appreciate the comment of there not
5 being an assessment on the medium and heavy duty. And I
6 think that's a big piece of AB 2127 requiring the Energy
7 Commission to really expand beyond light duty
8 infrastructure needs for charging. And so we will --
9 that'll be part of -- I can say part of the IEPR. I guess
10 I said it. And the report, the final report is due at the
11 end of this year. And so I think there will be a lot more
12 that we can say throughout the year for medium and heavy-
13 duty charging needs.

14 Who do we have next, Dorothy?

15 Richard.

16 MR. SCHORSKE: Hello, Richard Schorske, EV Alliance
17 and ZNE Alliance.

18 Just want to address Slides 26 and 27 light duty
19 space. First, the question was how should we balance or
20 prioritize project types?

21 I just want to suggest a couple of metrics that I'd
22 love to see highlighted and maybe made central to some of
23 the evaluation activities on the Staff side prior to the
24 applicants coming in. And the first one is cost per
25 electric passenger mile enabled. We have things like cost

1 per EVSE deployed which is typically used. But that can
2 cover up a multitude of sins. I think that notably things
3 around the issue of stranded assets and whether or not the
4 make ready becomes a real charger and whether the charger's
5 actually used and so on.

6 Cost for electric pass per mile enable gets you to
7 favor vehicles such as man pools, electric paratransit,
8 shared mobility services, car sharing, ride-hailing
9 services, and the like. And those are going to be both
10 higher VMT, but also higher per passenger mile in terms of
11 -- and therefore lower costs in terms of how the resources
12 are deployed. I think that could actually steer a lot of
13 resources into those shared mobility services would have a
14 lot of equity co-benefits and cost efficiency benefits,
15 obviously.

16 A second -- and this is specific to the MUD space,
17 but cost per household enabled for EV procurement. So if
18 you think about the fact that there's an issue with
19 stranded assets, if you have a one-to-one relationship
20 between the EV charger and a particular space, an assigned
21 space, that's just a set up for a stranded asset as soon as
22 there's any turn in the -- in the unit.

23 So what we would propose is a strong emphasis on a
24 shared access to EV infrastructure in the MUD environment.
25 It's a little less convenient, no doubt about it, but it

1 also can support right sizing of infrastructure in terms of
2 lowering costs per household enabled for EV procurement.
3 So in other words, anybody anywhere in the unit could use
4 that infrastructure.

5 Moving on to Slide 26, 27, around the school bus
6 replacement program and the medium duty, I would, you know,
7 I'm just very concerned that we don't have a strategy for
8 getting to 100 percent electric in the school bus domain.
9 I presume that there might be a rulemaking in that soon or
10 there should be. But most importantly I think some kind of
11 a system in a room process where we bring the school bus
12 stakeholders, including the Oyams, the District,
13 financiers, and the like all together and say, you know,
14 what is the goal? Is it 100 percent electric by 2033, for
15 example, just to throw out a number. It's a \$4 billion
16 build based on the numbers you guys have presented. You
17 know, how much is HVIP is going to cover, how much CDC, how
18 much private finance, how much District?

19 I mean, that's the discussion that needs to happen.
20 We need to actually get real about the total all-in cost
21 counting everything, infrastructure, and the like. And
22 then what mechanism can get us there, a market-type
23 mechanism, you know, or regulatory mechanism. So like no
24 more (indiscernible) procurement after 2023 would be an
25 example, diesels can't be relicensed for operation after

1 ten years would be another example. A heavy tax on
2 diesels, you know, to help to fund the program.

3 So emphasis on expanding the pie, this is a policy
4 proposal, I know it's not a funding proposal per se, but we
5 need to expand the pie, funding pie for that segment and
6 many others. And again, I would just say feebate is a
7 great way to go and I think the politics are there for
8 feebate unlike previous years.

9 Lastly, very quick, Slide 27, what concept should
10 be prioritized? Planning blueprints aren't everybody's
11 favorite way to spend money but it's very cheap relative to
12 everything else we're talking about here. And there are a
13 lot of cities, terminal ports, and cogs and the like,
14 AQMDs, that can and need to be doing and want to be doing
15 more for zero emissions zone planning.

16 This is a really complicated area. Zero emissions
17 freight delivery in a region is a really complicated thing
18 to get your head around and there's not a lot of planning
19 money available for that and it's something that requires a
20 lot of stakeholders.

21 So if you could set aside some funding for helping
22 cities, ports, cogs, MTCs, and the like to get their arms
23 what it would mean to have an accelerated approach to zero
24 emission goods movement and faster movement for that
25 matter, that'd be super, super helpful.

1 And last, data analytics on MD, I want to align
2 myself with Eileen and Michael's comments about cost issues
3 there being way bigger than we had any idea about on the
4 bad news side. On the good news side, we know that better
5 charging management can lower cost and some of that's not -
6 - that knowledge isn't very fully deployed yet so some kind
7 of, again, bringing stakeholders together to really get
8 those numbers better tweaked and inform everybody about
9 what it's going to cost to get there and be able to get
10 CARB and the CPUC in the room with that conversation as
11 well.

12 That's it.

13 MR. BARKER: Thanks, Richard.

14 Sandy in the back.

15 MS. NARANJO: Hi, good afternoon, everyone. Sandy
16 with Mothers Out Front.

17 I agree with Richard what he just said about the
18 electric school bus program. We've been working on a
19 campaign to work with school districts who's transitioning
20 their fleet. It's pretty concerning that there's not going
21 to be more investment in this considering the impact that
22 is has on children. Children are exposed to things every
23 day, and so considering the health impacts it has on
24 children, specifically that children in disadvantaged
25 communities are riding school buses.

1 So if we're going to uplift equity and uplift
2 disadvantaged communities of color, that should be
3 investing in programs, especially helping children to have
4 an opportunity to live a healthy, thriving life. So hope
5 to see more investment in that and hopefully to see how we
6 can work with schools to get them committed to have 100
7 percent zero emissions school bus fleet.

8 Thank you.

9 MR. BARKER: Thanks, Sandy.

10 Leslie.

11 MS. AGUAYO: Hi, Leslie Aguayo from Greenlining
12 Institute.

13 Yeah, I also really wanted to commend Energy
14 Commission for all of these great policies. One of the
15 things that I was thinking about in regards to increasing
16 workforce development is considerations of community --
17 community benefit agreements. And so really trying to hold
18 private companies accountable for ensuring that local jobs
19 are both given to the local economy but that they're
20 quality jobs as well.

21 Another thing that we often hear in the climate
22 change and green new deal is just transition. So ensuring
23 that folks that are going to be retrained from internal
24 combustion engine mechanics and moving into electric
25 vehicles don't lose their jobs. So folks who currently

1 work in that state will also be considered in the
2 transition.

3 Another thing could also be along with community
4 colleges and younger folks to reintegrate folks coming out
5 of prison. So people who have formerly been incarcerated
6 possibly doing some kind of training or workforce
7 development program for them to reintegrate them into the
8 local economy.

9 And regarding the buses, we have been working with
10 some folks on on-bill tariff financing. So that is one
11 kind of financial model that you could consider as well.

12 And I also agree in terms of considering local
13 policies about zero emission zones. Something else to
14 consider is what -- what the role of car dealerships would
15 be in those local policies. We know that they often don't
16 have the information to give to local community members
17 about how to purchase or how to use electric vehicle,
18 that's where a lot of that trust is found is in people who
19 work in the local community already. And so thinking about
20 how to integrate local car dealerships would be I think a
21 great strategy in thinking on how to capitalize sales tax
22 and the fiscalization of land use would be something you
23 could consider too.

24 So those are just some ideas.

25 MR. BARKER: Thank you.

1 MR. HAMILTON. Thank you. And thank you, members
2 of the Commission and Staff for putting together this
3 really great and concise, comprehensive approach to this.

4 A couple of comments on the CALeVIP side. When I
5 look at future projects, I notice, you know, we're leaving
6 too many Californians out here in the San Joaquin Valley
7 and the future project planning. So obviously we'd like to
8 see that addressed. You note the map on Slide 18, it's
9 pretty clear. I'm not sure what kind of thinking went into
10 that but it seems to be a theme. As we move on to
11 hydrogen, you can see the same thing. In the hydrogen map,
12 again, there are no plan facilities for the 99. In case
13 you don't know it, it's the second most used truck route in
14 the United States only to 95. And the East Coast has a
15 higher number of vehicles moving up and down it every day.

16 So I rode with them today and I'll be riding back
17 with them starting about 3:00 here so I too have to vote.
18 In Fresno, though.

19 So I'd really like to see that addressed. I don't
20 see how you can continue to move forward without that, it's
21 been commented on that many times. Why anybody chose
22 Coalinga originally for this is beyond my imagination. A
23 majority of people we recreate use the 99 to get up to
24 Sacramento and across into Reno. And if you want to --

25 UNIDENTIFIED SPEAKER: (Indiscernible) greener

1 city.

2 MR. HAMILTON: A greener city. Yeah, right, the
3 wonderful, beautiful scenic city of Huron, California,
4 where the number of charging -- charger infrastructure
5 devices of various types actually outnumber the residents.
6 We'll talk later, Ray.

7 Also I wanted to mention on the demonstrating novel
8 charging infrastructures. You know, again, the county of
9 Fresno, the Rural Transportation Agency there, I don't know
10 if you're familiar with Moses who is essentially, that's
11 actually the guy's name who leads that agency and how
12 progressive he is. But he invested with this company early
13 on and in the 15 incorporated cities is a solar arc with
14 charging infrastructure available to the public downtown in
15 every city now in Fresno County. And they have committed
16 to convert the entire fleet for the World Transit Agency to
17 electric by 2025. And he's already moved forward with that
18 goal and I believe he'll meet it.

19 I think the induction charging for mass transit
20 probably is the most inventive and creative thing that I've
21 seen. We tried to push the city of Fresno into doing this
22 with their rapid transit fleet development but they weren't
23 willing to take that chance. I think it's probably where
24 the future lies for that. I don't know about for
25 automobiles, but if we had one for every traffic light I

1 suppose, and stop sign, it could be, but you're a long way
2 from there.

3 School bus replacement. You know, AB 923 funding
4 is still available. That's the \$2 registration fee that
5 we're all paying on that funds school bus replacement.
6 It's originally for 1993 and older, it's now been pushed to
7 just 20 years back from the present date. So I would
8 suggest, again, I mentioned leveraging earlier, this is an
9 opportunity to add some funding but leverage this existing
10 funding and maybe just work on the vehicles newer than 2000
11 that need to be replaced. That gives you a more finite
12 universe to target and you can probably wrap your hands
13 around that more easily than the 15,000 approximate school
14 buses statewide you have on the list now.

15 I think again another opportunity there that you
16 could take advantage of. And that's old money, that's
17 been around. The Air District in San Joaquin formulated
18 the first School Bus Rule 9510, I know because I helped
19 write it, back in 2005. So this is something that is very
20 common.

21 By the way, just mentioning in Tulare County, the
22 city of Porterville was the first in -- I don't know if the
23 state, but certainly the valley to add nine electric buses
24 to its transit fleet early on. And by the way, it
25 surprised all of us. But just to show you again why we

1 need that charging infrastructure investment in other
2 counties than Fresno, Kern, and San Joaquin. Sorry to keep
3 beating that drum, but hey, that's what I'm here for,
4 right?

5 Medium, heavy duty emissions vehicles and
6 infrastructure. I really like this plan other than, again,
7 the school buses not being funded. But I think blueprints
8 for implementation are always well invested in just
9 supporting that point that somebody else made. I can't
10 imagine doing the work that I do without a blueprint moving
11 forward. And I would like to think that we're doing that
12 as well. We've had a number of those, though, who -- that
13 have ended up on shelves within two or three years. So,
14 you know, how do we maintain that blueprint, how do we
15 build various indicators in it that demonstrate progress,
16 so milestones along the way? I think all of those are
17 critical pieces that need to be added to this plan if we're
18 going to, again, get there.

19 And then the ability to be flexible along the way.
20 We learn information that suggests this pathway is not
21 working so well. What's the mechanisms built in place to
22 pivot and do something else?

23 Last but not least, under the low carbon fuel
24 project benefits. Feels like I've been facing this low
25 carbon fuel standard forever now. We have some significant

1 issues in the valley, I suppose, and in California with
2 some of the fuels that are considered low carbon fuels. I
3 think the time has come and gone for liquid fuels. I, you
4 know, I hate to see more money thrown after bad there.

5 I understand the whole thing, I come from farming
6 family, both my wife and myself. You know this has been a
7 great boon for the farming industry but I think combusting
8 liquid fuels is pretty much something we need to put behind
9 us no matter what. It's unfortunate and certainly
10 unfortunate for those folks who are invested in it. But,
11 you know, it's just unfortunately, it's all unfortunate.

12 And again reinforcing what everybody's been saying
13 about workforce, manufacturing a workforce training and
14 development. The biggest fear I heard from Huron Trucking,
15 when we were working on AB 1383 trying to figure out how we
16 could create a self-sustaining dairy digester universe for
17 low carbon fuel standard eligibility and getting truck
18 fleets that could actually be available to use that fuel
19 that we're building. Their biggest worry is not having
20 people who can fix these trucks and maintain these
21 vehicles. And it's still a worry.

22 So when I have one of the biggest trucking
23 companies in the country telling me we love the vehicle but
24 we're afraid to buy more of them because, you know, we're
25 not sure who's going to be able to fix them, I think that's

1 never money poor -- it's always money well spent, never a
2 bad investment.

3 MR. BARKER: Thanks. And for those online, that's
4 Kevin Hamilton.

5 MR. HAMILTON: My apologies, Kevin Hamilton, Center
6 of California Asthma Collaborative.

7 MR. BARKER: Dorothy, who's next?

8 UNKNOWN SPEAKER: Tyson Eckerle.

9 MR. BARKER: Okay.

10 MR. ECKERLE: Down the line. Tyson Eckerle with
11 GO-Biz. Thank you.

12 I feel like we're at this delicious buffet bar and
13 we want to eat everything and all we have is this teeny
14 little salad plate. And so I was trying to figure out --
15 and so -- so yeah, so all these projects are amazing, it
16 would be really great to invest in all of them. Try to do
17 some prioritization type of stuff. But just going down
18 through the list.

19 So on the EV charge, I think the frontloading is
20 good. There's a tremendous, I mean businesses love
21 CALeVIP, it's super effective, it goes deep. I think it's
22 great. And I think that would just positive, you know, all
23 categories in this questions are good but you can't have
24 equity without infrastructure access. So I think that's
25 where I'd put the priority.

1 The medium and heavy duty, I think there's
2 certainly is an appetite for more funding today, you know,
3 so if there was a way to get more into there. But of
4 course it has to come from somewhere. And looking at that
5 list, again, all those things are great, but if I had to
6 pick, it would be the freight and transit. I mean, there's
7 a lot of demonstration we need to get out there and prove.

8 I also agree with Jimmy on the innovation piece.
9 This is a very unique pot of funding that we -- that you
10 have here. I just -- and I mentioned this earlier, but I
11 don't want to forget the hydrogen analysis just figuring
12 out what our roadmap looks like there so we can help
13 catalyze investment.

14 On the light duty hydrogen, I think just remind us
15 that we are investing in an ecosystem so I don't -- I think
16 we should continue beyond 100 stations, keep this 20
17 million going as far as it can. Private investment is
18 starting to come in but they are doing it in the context of
19 kind of a rising tide just lifting all boats and so we want
20 to make sure that those investments can come to fruition.
21 I think that, you know, 200-station target is one that we
22 should be targeting towards. I know the Energy Commission
23 program's not going to get us there, but that coupled with
24 LCFS capacity credits is really -- really good.

25 Want to make sure that that's leveraging kind of

1 going forward with the AB 8 reports, I think those are
2 really great mechanisms to figure out what is the need
3 going forward. For the light versus heavy on that, I think
4 it's a both and type thing where there are opportunities
5 to, you know, put those together, great, but also let's not
6 forget that this is an ecosystem so that all the heavy duty
7 and light duty do work together even if they're not on the
8 same -- same location.

9 Then on the fuel production, probably no surprise,
10 but I would definitely prioritize a renewable hydrogen
11 piece of that. I think that, you know, kind of a green
12 here, I think it's time to go to zero as much as we can.

13 And then workforce and manufacturing. So our
14 office at GO-Biz does a lot of kind of retention and
15 bringing communities here. And so the workforce part, you
16 know, can't be underscored enough, it's incredibly
17 important. In fact, like this, if you go back to the
18 equity, like part of equity is having disadvantaged
19 community members or, you know, members that have had less
20 opportunity actually being out there doing the ones doing
21 the construction. Right? So that's something that we
22 should be focusing on.

23 And then we do have a real challenge in California.
24 We have companies coming in. Great hub of innovation, we
25 have all the engineers here and, you know, potential

1 manufacturing for ZEV than, you know, vehicles and stuff.
2 But a lot of times, they'll look other places in the
3 country where the supply chains are set up. And so I think
4 that's something we need to pay attention to. And it might
5 not be realistic for us to pull it in with \$3 million, but
6 at least something we need to be focused in on.

7 MR. BARKER: Thanks, Tyson.

8 UNKNOWN SPEAKER: Bill Magavern.

9 MR. MAGAVERN: Thanks. Bill Magavern with
10 Coalition for Clean Air.

11 First of all, Slide 27, I would, you know, tough to
12 prioritize but I would go with transit bus infrastructure
13 for the reasons that Michael Pimentel gave but also because
14 all the transit provides an essential service with broad
15 benefits, really benefits everyone.

16 On Slide 29, can I ask a question of Phil? How
17 many of our hydrogen stations are available to buses and/or
18 trucks?

19 MR. CAZEL: Well, the answer to that partially is
20 where they're located and whether a truck or a bus could
21 get to it, you know, to fit into the station. There are
22 probably ten or more that could do that. And historically
23 there have been maybe five that on a regular basis have
24 filled buses especially.

25 MR. MAGAVERN: What I heard you say earlier is

1 we're going to try to expand those that are accessible to
2 medium and heavy duty, right? To have more stations that
3 our buses and trucks can access?

4 MS. CAZEL: Yeah, that's an option for the -- for
5 the solicitation that's on the street right now.

6 MR. MAGAVERN: Okay. Well, that's definitely
7 something that we would support.

8 And then another question on hydrogen. I think
9 this one is for -- is for Andrew. How much capacity does
10 California have currently? Like how many facilities that
11 actually produce renewable hydrogen from electrolysis?

12 MR. HOM: So actual production, the facilities that
13 we have funded most recently was only two. One was a 1,000
14 kilogram production facility and the other one was 2,000.
15 But the total -- the total class of the facility was 5,000
16 but we only funded 2,000 of that capacity. But station --
17 those production facilities aren't complete yet. So that -
18 - I don't know if you want to count that capacity to your
19 question.

20 MR. MAGAVERN: Well, thanks. So then my final
21 comment is just to agree with Jimmy and Tyson that in the
22 renewable fuels area, we should be prioritizing the ability
23 to generate renewable hydrogen by electrolyzing water and
24 of course working with our electricity goals by using that
25 surplus that we often have in the afternoon of renewable

1 electricity. And instead of curtailing our renewable
2 electricity, turning that into hydrogen.

3 MR. BARKER: Great. Thanks, Phil.
4 Dorothy.

5 UNKNOWN SPEAKER: Katherine Garcia.

6 MS. GARCIA: Good afternoon. Katherine Garcia with
7 Sierra Club, California.

8 On the light -- light duty side, I wanted to raise
9 the Clean Mile Standard that I know CARB and CEC are both
10 involved with. This is SB 1014. Just wanted to point out
11 that there is a substantial amount of miles and GHG
12 emissions that are associated with the vehicles that are
13 being driven by TNCs, so Uber and Lyft, and these are all
14 light duty vehicles. And so Sierra Club has been following
15 this carefully to see how we can increase the number of EVs
16 that are driven by TNC drivers and also looking to see how
17 we can increase accessibility of charging infrastructure
18 for these TNCs.

19 So I just wanted to raise this point to see if
20 there could be some coordination with CARB. CARB had some
21 analysis showing where the charging would be most affective
22 so I think that would be good in terms of looking at
23 charging infrastructure since there's so many miles that
24 are associated with TNCs.

25 Secondly, on the medium and heavy duty side.

1 Wanted to mention the -- really looking at the equity lens,
2 at this priority list and just wanted to highlight the
3 transit bus infrastructure. Sierra Club is very dedicated
4 to increasing electric transit buses, and so wanted to
5 highlight transit buses and also school buses as a
6 priority.

7 And then finally, in terms of workforce, just
8 wanted to echo what's been said on the importance of
9 workforce and manufacturing and also just echo what Leslie
10 said about Green New Deal. Thank you.

11 MR. BARKER: Thanks, Katherine.

12 UNKNOWN SPEAKER: Bill Elrick.

13 MR. ELRICK: Thank you. Bill Elrick, California
14 Fuel Cell Partnership.

15 High level. I think this is a great overall
16 direction what the work that's been done thus far, it
17 really looks at scaling up these alternatives and reaching
18 California's environmental and economic goals. Speaking
19 towards that multiyear program, we've seen that changeover
20 in hydrogen and we're really excited about multiyear
21 market-based and what that will do.

22 And I think that's a really important piece for all
23 of these programs, looking at how you encourage more
24 private investment and long-term sustainability and asking
25 the question, what happens when the CEC funds run out?

1 And, you know, if the answer is, we don't know or it's not
2 going to continue, that's something to question.

3 And with that, there are a lot of comments today I
4 would echo back about the reality analysis, the gap
5 analysis, the assessment. Is, you know, is this working in
6 the real world, and after those funds are gone, again, what
7 -- what happens beyond those? Especially in some of the
8 equity questions. You know, we put a bunch of investment
9 in there. Let's figure out right away which ones are
10 working so we can keep encouraging that and transition if
11 something isn't.

12 Looking specifically at some of the questions on
13 here, looking at medium and heavy duty for Esther. I will
14 say frontloading, you know, again that's sustainable
15 concept, especially around transit and freight. Those I
16 can speak mostly to hydrogen, but I think those are
17 starting to see those first things come out.

18 I also think in the planning and blueprints, one
19 thing to think is, maybe not committing everything right
20 upfront knowing for say the ICT rules, CARB expects, I
21 believe at the end of this year, to see the responses from
22 all the transit agencies. So see what they're committing
23 to, see what they find when they really dig down and make
24 plans, how you build your investment around to support
25 that.

1 And to that, I think colocation is interesting.
2 But the real world -- the reality we've seen, at least in
3 hydrogen is, you know, they're very different technologies,
4 different codes and standards, and the use patterns, and
5 don't go spending 85 percent of your resources chasing 15
6 percent of the -- the payback.

7 Transitioning to fuel and hydrogen, again, I want
8 to echo how wonderful the program has come over the years
9 to really go towards we need to, which is to achieve these
10 big long-term goals. The -- the GFO, the CARBS, HRI, and
11 LCFS program, I think these will be really interesting to
12 see how these play out and really move this away from being
13 a -- a government-led activity. And that is appropriate.
14 Government should take that lead, drive the market, and
15 then be looking and asking how to back out.

16 However, I'm -- I'm frankly a little taken aback by
17 the question of should you continue after a hundred
18 stations. You know, we heard from Staff and these slides
19 talk about we are way behind our goals, and to question
20 continuing just undermines the entire program. Not to
21 mention the signal it sends the consumers who invested or
22 the industry that have invested or continue to make even
23 bigger investments when -- when you're looking at
24 questioning going beyond not just the 200 goal, which isn't
25 embedded in here enough, but the big difference that I see

1 between what happens a lot
2 is -- well, I'll come back to that.

3 I think what's really important is to look at the
4 objectives of this program. It's ZEVs, it's clean, it's
5 decarbonization, and those big program goals. And I think
6 one of the reasons that might be coming is a fundamental
7 thing I want to point out in the analysis. When you're
8 looking at the battery side, I'm really pleased to see
9 looking at what success is. How do we reach 1.5 million
10 ZEVs? How do we reach five million ZEVs? You're not
11 asking, do we get to that first milestone and quit? So
12 what you're doing with hydrogen is you're asking if I quit
13 after 100 stations and that's fundamentally going to cause
14 failure.

15 So I think you need to look at that and think you
16 need to consider both changing the overall approach to all
17 ZEVs to be really all of this program to be how do we get
18 success? And always asking how do we take the next step to
19 get there? That's my biggest concern when I read this
20 because everything else is wonderful. What you've done
21 with hydrogen is wonderful. And it's time to scale up.
22 Not question, you know, when do we stop before we even
23 reach halfway to the first milestone.

24 MR. BARKER: Thanks, Bill.

25 UNKNOWN SPEAKER: Ruben Aronin.

1 MR. ARONIN: Thanks for all the hard work that went
2 into this and I'm going to take a page from Eileen which is
3 to say I'm still soaking it in and look forward to getting
4 back to you and checking in with some trusted partners.

5 But at a glance, on the light-duty program, looking
6 at the leverage benefits and the importance of making sure
7 that we just aren't putting infrastructure investments, but
8 that there are used programs, car sharing, innovations that
9 are making sure that the vehicles are fully penetrating the
10 communities that need electrification the most. So that
11 would be kind of my guide point to frontloading. Are you
12 really generating much more investment given that there's
13 going to be a fall off? And then the way you structured
14 the, you know, the cycle of actually identifying and
15 getting funds out the door that can be up to four years,
16 you know, from when funds are received. I would want to
17 see how are you really taking advantage of putting those
18 dollars up front?

19 Because if there isn't a significant advantage, my
20 bias is to get the heavy and medium duty infrastructure
21 investments moving sooner. I'm concerned that in our salad
22 plate analogy that we're leaving those behind. And frank
23 demonstration is critical, making sure we have our transit
24 agencies' backs are critical, and our blueprint, maybe we
25 should call them green prints. I think they need to be

1 dynamic tools because this is going to be a changing space
2 and there's probably going to be different ways you could
3 cut at this.

4 We don't know exactly how the market is going to
5 transpire, but I think digging into those freight corridors
6 and working with utilities and the stakeholders to help
7 that process become defined. And it also will help channel
8 other infrastructure investments. I think that can't be
9 overstated. I think that's a really valuable use of
10 resources and -- and mind power.

11 I noticed on Slide 34 that there's the aggregation
12 of public and private investments on the low carbon fuels of
13 a little over a billion dollars investments, hitting 750
14 jobs. And you may have this, but I'd love to see the
15 metrics of jobs that we're creating in this space.

16 And then the only other comment, and this is
17 anecdotal, not my space. On workforce development and
18 training, I've heard there's a mismatch. Right. The
19 vehicles aren't on the road yet, yet we're training kids to
20 take these jobs. And so right sizing kind of the
21 curriculum needs that allows, you know, young professionals
22 to work on vehicles today and be ready for the vehicles of
23 tomorrow I think is an important modulation even as you how
24 -- as you frame the investment pool and what that program
25 is looking like.

1 UNKNOWN SPEAKER: Jerome Carman.

2 MR. CARMAN: Thank you. My name is Jerome Carman.
3 The Schatz Energy Research Center at Humboldt State
4 University.

5 First off, I want to echo Eileen's comment
6 regarding appreciation and respect for this planning
7 effort, and particularly the three-year vision. I think
8 that's critical. So thank you.

9 So my set of comments is going to come, it's more
10 from the perspective of the logistics and complexity of
11 getting electrification technology into the ground,
12 specifically with respect to thinking of them as
13 distributed energy resources and taking a grid planning
14 approach.

15 So first, addressing your questions, one from both
16 a light duty and medium duty sector sections, they both are
17 questions with related to timing. I would -- I recommend
18 having a close collaboration with the PUC. I want to echo,
19 I think it was Michael's comments regarding this. I think
20 PUC coordination is critical, and specifically heavily
21 leveraging their VGI working group, their Vehicle Grid
22 Integration working group.

23 The technology around getting these distributed
24 energy resources integrated into the grid is still very
25 nascent in a lot of ways. The standardization is absent in

1 some of the critical technologies that are important for
2 getting this infrastructure deployed in an intelligent way,
3 in terms of thinking about the smart grid goals of the PUC
4 and pre-utilities.

5 And, let's see, yeah, so I think that's -- that
6 summarizes that point. And I think this goes back to my
7 earlier comment about stranded assets and again, thinking
8 through, making sure this equipment is deployed
9 efficiently. And is, I guess on top of that, also noting
10 that from the utility perspective, we are integrating a
11 significant amount of load into their infrastructure. And
12 the utilities are also early in their processes of thinking
13 -- of figuring out how to think about distribution system
14 management and dealing with distributed energy resources
15 intelligently.

16 So just bring that perspective into -- as you are
17 releasing these GFOs for this infrastructure, making sure
18 that you're writing these GFOs in a way that has the -- has
19 correct technology requirements in them, and coordinating
20 with the PUC and the VGI working group to make sure we're
21 wording that correctly.

22 My second comment is regarding the meeting heavy
23 duty number two question, your priority projects. I want
24 to highlight that very related to my previous comment that
25 planning is critical. So having -- planning prior to

1 infrastructure deployment is going to be important. For
2 example, we are taking a regional approach in Humboldt
3 County for transit electric -- on route charging
4 infrastructure. We're thinking about distribution
5 requirements. We're thinking about neighboring county
6 transit systems. We're thinking about school fleets, et
7 cetera. And these are all important for understanding how
8 to intelligently deploy this infrastructure. So my point
9 being that I definitely emphasis planning. We have to do
10 all of this, but planning is really, really important.

11 My third comment is regarding hydrogen. Your
12 question number one. I think I want to echo Bill
13 Magavern's points regarding medium, heavy duty and I think
14 you -- and also your comments. I forget. Bill. Bill. I
15 forget your last name. I apologize. Your comments
16 regarding I think we have to continue funding in hydrogen.
17 Particularly, unless we get some sort of clear signal from
18 the battery technology space, that batteries are able to
19 serve all of our mobility sector needs and I don't see that
20 as being true. And hydrogen has a particular niche in --
21 in the heavy duty sector.

22 And I think also we need to not forget that
23 hydrogen needs to be renewable and electrolysis is one of
24 those critical pathways. Electrolysis is a distributed
25 energy resource from a utility perspective in the PUC. So

1 again, rope that back into coordinating with the PUC.

2 And then finally, a quick comment. The -- I just
3 recommend clarifying that hydrogen is not included in your
4 medium, heavy duty line item because -- or do I have that
5 correctly? Because of your \$20 million cap?

6 MR. BARKER: No. So the 20 million are for the
7 public stations. The medium and heavy duty are ZEV
8 technologies so it would be infrastructure that includes
9 battery and hydrogen.

10 MR. CARMAN: Okay. I don't think I -- maybe I just
11 missed it. I don't know if I came across or comes across
12 clearly in the Investment Plan.

13 Thank you.

14 MR. BARKER: Thank you.

15 UNKNOWN SPEAKER: Ray Leon.

16 MR. LEON: Buenas tardes now.

17 So earlier I mentioned the light passenger rail
18 that has been -- they've been planning on for the past, I
19 think it's 40 years now. It's a little bit different now
20 because we're talking about the high-speed rail. And I
21 think one of the interests is to provide feeders to that
22 high-speed rail. Right.

23 Just a little bit a story. Back in 2009,
24 collaborating with CERT, Center for Energy Efficiency
25 Renewable Technologies, we had a forum at Fresno City

1 College on transportation and energy. So we were having a
2 similar conversation but like, way before a lot of things
3 existed, you know, but it was the first time I heard high-
4 speed rail.

5 So we had some presenters to speak about high-speed
6 rail and they were talking about how it was going to be the
7 spine of the valley. And so my question was, where's the
8 ribs? You know? Because on the west side and on the east
9 side of the San Joaquin Valley, you have a lot of farm
10 worker communities. A lot of communities. A lot of people
11 that wouldn't, you know, have access to it.

12 So fast-forward, now I'm the mayor. In City of
13 Huron, we have a rail that connects to ten other cities in
14 three counties total and there's been a plan for a while,
15 and from what I hear, HSR has some funding for it. Now, I
16 also am on the San Joaquin Joint Powers Authority and
17 that's, regards a rail from Bakersfield all the way to the
18 Bay.

19 And so I'm trying to learn, how do we make this
20 happen? You know, and for me it's a, you know, it's not
21 always just about completing a project, but setting
22 something up that provides an example, or it's a pilot so
23 that it could be duplicated or replicated in another part
24 where you have disadvantaged communities that are having
25 the same connectivity issues.

1 And I just want to make sure that I mentioned that
2 because I noticed it's a rail, but I think it should be
3 alongside the issue of the port. I think there's --
4 there's potential of having some light passenger rail for
5 connectivity in disadvantaged communities and numerous
6 communities which also works into HSR. We've mentioned
7 leveraging resources. Right. And I think that provides
8 some -- some opportunity there.

9 But the other thing I wanted to state is that I'm
10 also on the Equal Opportunities Commission Board. Part of
11 it is because what I've realized is that all the workforce
12 training and the whole center that they're developing, I'd
13 let you guess how many people are from Huron. Zero.
14 Right. And Opportunities Commission, it's supposed to be
15 for the whole county. But farm worker communities or the
16 rural communities really aren't a part of it. And for me,
17 it breaks my heart because it's these farm worker
18 communities that are losing the jobs. You know, orchards
19 are less labor intensive. And when you get a solar farm
20 covering 1,000 acres, that's 250 jobs out the door and
21 local economies getting hit. Right. And just mentioning
22 that point, there's another whole conversation we could
23 have there where we could bring about some equity but we're
24 working on something with one of the farmers in the area to
25 try to see what other pilot or example or something, you

1 know. Life is a lab, right. But.

2 So -- so I just wanted to pick that up because I
3 think green light (indiscernible) are electric vehicles are
4 for nonemergency medical. But we're trying to figure out,
5 all right, well, you know, this -- I see it as one of the
6 ribs, number one. The other thing is I see it as one of
7 the extensions to be able to get some of our folks to those
8 communities, you know. I mean, to the training centers
9 because it's -- our folks have just been undermined and
10 overlooked.

11 And so, I'm just one cat on that commission but
12 there's some folks that are supporting, but. So it's --
13 it's not, you know, it doesn't happen as fast as I would
14 like to see it happen but I think, you know, we should know
15 about it here. You know, folks should know about it here.
16 That connectivity is really important.

17 Thank you.

18 UNKNOWN SPEAKER: Mary Solecki.

19 MS. SOLECKI: Hello. Good Afternoon. I won't
20 comment on areas around light duty, ZEV infrastructure, and
21 workforce training because I'm basically in -- I consent
22 with many and align myself with many of the comments that
23 have already been made and I'm trying to stay in my lane
24 here. So I'll just run through a few of the topics
25 briefly. I will submit written comments for more

1 substance.

2 But, quickly, on the school buses, in terms of the
3 electric school buses for most communities in the state, I
4 think that's -- it makes perfect sense and we should move
5 forward with the plan as stated. But I understand that
6 there are some rural districts in the state that have
7 fundamental challenges utilizing electric school buses due
8 to the nature of their routes and their geography. So I
9 guess I would encourage the Energy Commission to talk to
10 some of those rural districts and see what sort of
11 technologies could be utilized in those areas that could
12 also reduce emissions.

13 Moving on to medium duty and heavy duty. A little
14 bit contrary to what a lot of people -- I heard a lot of
15 people saying. I heard a lot of folks saying transit bus
16 infrastructure. I am inclined to say freight
17 demonstration, as well as marine and rail infrastructure,
18 those are areas that, you know, in general, goods movement
19 is a growing percentage of emissions, especially in the day
20 of, you know, two-hour delivery by Amazon and Internet
21 shopping. We're only seeing greater and greater emissions.
22 And so I think that that's an area that we need to start to
23 get ahead of before the I-5 and 99 corridors get even
24 worse.

25 And then I will underline my comment that I made

1 earlier this morning just about leaving room in that
2 program for near zero technologies. I'm -- I was trying to
3 think of a way that I could more specifically state what I
4 have in mind but I, you know, a few different client
5 interests where they're moving towards these zero emission
6 technologies but they for various reasons need to phase in
7 the investments, or they need to build infrastructure that
8 is temporarily going towards something that is lower
9 emission, but it will eventually get all the way to zero
10 emission. And I think that those also deserve sort of
11 that, kind of, phased in development.

12 So moving on to hydrogen. The continuation of AB
13 8. I found Bill Elrick's comments interesting about yeah,
14 why are we stopping when we're only halfway there. Why are
15 we contemplating stopping? I guess one of the things that
16 I like about what we've done here is a multiyear planning
17 exercise. That's extremely helpful and I know many
18 companies will be digesting this plan very closely and
19 making their own plans around it. So if we are honestly
20 considering a change in AB 8 strategy, let's talk about it
21 earlier than later so that industry can be prepared and
22 decide how that they want to treat that post 2024.

23 And then on the light duty versus heavy duty
24 infrastructure. I kind of think heavy duty. But it is a
25 little bit of both and, so it's tough. And yeah, we've got

1 the salad plate at the delicious buffet, so I guess what I
2 would put on my salad plate is heavy duty.

3 Finally, fuel production. Addressing system
4 barriers. As long as that is in addition to production of
5 fuels, yes, all for it. Love that idea. Think that's a
6 great way to go, as long as it's not instead of.

7 Other funding mechanisms. I absolutely, I would
8 love to see CEC go in that direction. Loans, perhaps
9 production incentives for in-state fuel production, that
10 those could be very successful ways to leverage fewer
11 dollars to generate more activity.

12 So thank you very much.

13 COMMISSIONER MONAHAN: So I want to acknowledge
14 we've been sitting for almost two hours and it's good to do
15 a, like, two-minute stretch.

16 I also want to say really quickly that we didn't
17 acknowledge that every single member of the advisory
18 committee showed up for this meeting. It's the first time
19 in the history of the program, according to Charles, that
20 that has ever happened. So thank you. It's also the
21 biggest advisory committee we've ever had so we -- and we
22 want to hear from everybody.

23 So let's take a little bit of a stretch, two-minute
24 stretch and then we'll come back and get to the finish
25 line.

1 A few people have dropped off, so we'll be able to
2 get to the entire Advisory Committee before 4:00.

3 (Off the record at 3:09 p.m.)

4 (On the record at 3:17 p.m.)

5 MR. BARKER: Okay, so we're going to get started.
6 And we're going to go to one of our advisory committee
7 members on the phone first to start with.

8 So Lucas Zucker, please state your comments.

9 MR. ZUCKER: Hi. Can you hear me?

10 MR. BARKER: Yes, go for it.

11 MR. ZUCKER: Great. Yeah, I just wanted to say,
12 echo what some others have said and kind of reiterate some
13 of my initial comments. I think I really, really would
14 like to see kind of frontloading of heavy duty over light
15 duty, if we're kind of talking about those priorities for
16 all the reasons around health and air quality, for EJ
17 communities and just the huge impact that those have on
18 kind of GHGs and as well as other, you know, health-related
19 issues.

20 In terms of heavy duty, like a lot of the different
21 concepts there, I think, you know, one and two, both --
22 both really important, with kind of the point three around
23 kind of community, or around planning process. I really
24 would like to -- if we're going to fund planning process
25 making sure that kind of community driven planning

1 processes that -- that have really robust kind of public
2 engagement and kind of equity elements to them, I think is
3 really important for me.

4 I also think for Category Item Number 4, I think,
5 yeah, there's some good potential to do kind of
6 electrifying freight rail, given that it does often go
7 through kind of residential communities. At least it
8 certainly does in my area and, actually the freight rail in
9 my community is owned by the harbor district. And so, you
10 know, it could really have a lot of potential there.

11 Yeah, and then as well as kind of school bus and
12 transit. As someone mentioned in the public comments, I
13 think impacts to kids, and kind of sensitive protectors of
14 schools of school buses I think makes that -- makes that
15 important priority.

16 And then I'd also echo what, I think it was someone
17 from morning said around community benefits agreements and
18 kind of workforce standards and local hire. I think it's
19 really important for us to talk about workforce development
20 in terms of training, but I also think it's really
21 critically for us to expand our thinking beyond that and
22 really think about how are we getting jobs into our
23 communities that are going to, you know, folks who often
24 are needing that kind of transition from old technologies
25 into new technologies. And I think, you know, we've

1 sometimes seen how training can fall short without those
2 kind of protections around job quality and job access.

3 The last thought is just around biofuel and I know
4 there's some concerns from environmental justice
5 communities in the Central Valley. I'm on the Central
6 Coast but, and we don't have as much, kind of dairies
7 there, but around kind of dairies and biofuel and, you
8 know, where that may be, you know, hopeful for emissions
9 over all, whether they be negative for the communities that
10 are most impacted by those dairy operations.

11 MR. BARKER: Thanks, Lucas.

12 Next in the room, Dorothy.

13 DOROTHY: Zac Thompson.

14 MR. BARKER: All right, Zac.

15 MR. THOMPSON: Yeah, I just had a couple comments
16 on the light duty stuff on Slide 21 and medium and heavy
17 duty on Slide 27.

18 But for the light duty first. I do think the
19 priorities should be on the charging infrastructure
20 deployment and equitable eMobility projects. And across
21 the board, I think that the emphasis should be on providing
22 infrastructure to our multiunit dwelling population that
23 doesn't have quite as much of the ability to install
24 residential charging. Whether that be through deploying
25 fast charging hubs or streetlight and curbside charging or

1 the EV car sharing projects in multiunit dwellings.

2 And would also like to second what we heard earlier
3 about the importance of electrifying the TNC vehicles, our
4 transportation network companies. And we've heard a bit
5 today about that some of the medium and heavy duty
6 regulations that are coming out for those vehicles but
7 then, you know, we also have what's coming out of CARB. I
8 believe it's the clean mile standard. So we'll also need
9 to think about how we align this Investment Plan with those
10 regulations as well.

11 And then medium and heavy duty on Slide 27, we'd
12 obviously fully support, you know, the projects to
13 electrify transit and school bus, and those fleets. But
14 would also like to encourage or see the grant funding
15 opportunities that come out of this Investment Plan to
16 encourage those types of projects to take advantage of
17 daytime charging or to deploy storage technologies that
18 would also be able to take advantage of the renewables that
19 we have on the grid in the middle of the day.

20 And then, finally, just wanted to do a shout out
21 for CCAs. I know we've heard a lot about aligning with
22 IOUs and even our POUs, Investment Plans and their
23 strategies. And I just want to remind everyone that CCAs,
24 we also have -- we also make investments in these types of
25 technologies and also have our own business plan. So, you

1 know, we collaborate with our IOUs also on these types of
2 infrastructure projects. So just want to do that shout out
3 real quick.

4 Thank you.

5 MR. BARKER: Thanks, Zac.

6 UNKNOWN SPEAKER: Patricio Portillo.

7 MR. PORTILLO: I just want to thank Staff for this,
8 for all their hard work on this really thoughtful plan and
9 presentation.

10 Also wanted to echo the need for medium and heavy
11 duty funding. You know, we're seeing a lot of action and
12 interest from the fleets for the heavy duty EVs,
13 particularly because of the compelling economic case.
14 Fleets are irrational on emotional actors. So the ramp up
15 speed for EV, or ZEV truck adoption could be significant,
16 but we're also hearing very real concerns about adequate
17 infrastructure that exists. And we don't want to slow that
18 adoption rate because of the lack of infrastructure.

19 Also, I want to talk about a slide that prompted
20 this next comment, Slide 18. So GO-Biz has another map
21 that shows jurisdictions that are not in compliance with
22 the state infrastructure permit streamlining law. And
23 Tyson may be able to speak more to this. But less than
24 half of jurisdictions are in compliance with this law.
25 Fourteen percent are in compliance? Okay. Yeah. So

1 that's tiny. Yeah.

2 So I guess looking at where the projects are funded
3 and to Kevin's earlier point as we look to fill in more
4 green on this map, are there ways to use the CEC funding as
5 a carrot to entice noncompliant jurisdictions to adopt to
6 streamline permitting for infrastructure. Just the way to
7 get the CEC spending to accomplish multiple related goals.

8 Thanks.

9 UNIDENTIFIED SPEAKER: Robert Meyer for Peter
10 Cooper.

11 MR. BARKER: Hold. One second, did you --

12 MR. ECKERLE: Just real quick. That is a great
13 idea and we are doing that. And so we're seeing a lot of
14 response. All else being equal, the funding would go to a
15 county with more streamlining.

16 MR. BARKER: Thanks, Tyson.

17 MR. MEYER: Thank you. Robert Meyer. Thanks,
18 Tyson, for the comment on the hydrogen permitting.

19 Thanks, Commissioner Monahan for the cookies, and
20 not Tyson's idea of a small plate of salad being
21 distributed this afternoon.

22 My comments are limited to Slide 42 regarding the
23 workforce and manufacturing. I think a key in working with
24 the manufacturers is going to be supporting the employer's
25 investment in the programs that are invested in their

1 training. It should be tied as closely as possible to the
2 training itself and that will maximize the benefit of the
3 investment towards the employees and the employers and the
4 communities in which they live and work.

5 ETP incidentally requires 100 percent match for
6 every dollar we spend, and we find that that's a good
7 compelling way to have them invest in a partnership.
8 Additionally, I think that the program would benefit, at
9 least in the manufacturing support from a higher level, and
10 if possible, the highest level of control on the design of
11 their training. Letting the employers have that control.
12 It'll stoke their investment because it'll help them tailor
13 based on the expertise and their own assessments of what
14 they need. As much flexibility as possible, particularly
15 in job creation areas.

16 We work closely with Larry and appreciate his
17 guidance in this sector. But we have a number of employers
18 in the supplier sector that have been supported in job
19 creation because of the wider range of job skills that they
20 need beyond the immediate technology. Often, it's
21 retooling of manufacturing skills from other manufacturers
22 that they worked in. So your guidance, your continued
23 guidance in that would be appreciated.

24 On the performance level and the workforce
25 development side, sorry the workforce development programs.

1 Performance-based programs we feel are the strongest
2 measure and an opportunity uniquely to provide a
3 replication opportunity into underserved communities.
4 Areas of affluence or of, you know, a congregation of need,
5 or a particular bandwidth, provide the opportunity to build
6 out piloting programs. But extending those into the
7 underserved communities, I think it, driven on a paper
8 performance or otherwise performance-based program rather
9 than strict grant, I think provides a real good opportunity
10 to build off of a successful model or successful program.

11 I'd also, for its ability to emphasize job quality.
12 We've heard that mentioned a couple of times. And most
13 importantly, competitive employment opportunities for the
14 underserved workforce. So we're not giving sign-holder
15 jobs. We're not giving jobs with no path forward. This is
16 entry points. This is retooling of workers that are going
17 to be upskilled or moved into new technology areas.

18 I'd also like to -- I'd be remiss if I didn't
19 mention the partnership both with GO-Biz, which has
20 fostered a great deal of effort in recruitment and
21 retention statewide, as well as permanent assistance. And
22 most importantly in terms of leveraging the other resources
23 and investment opportunities and programs available to the
24 employers in this sector.

25 Lastly, regarding the staggered funding approach.

1 I would just say that ETB can use its \$103 million or a
2 portion that's not going to apprenticeship training. Casey,
3 towards the funding of core program eligible manufacturing
4 skills training, we can fund the private side with our core
5 program without a doubt. But the public sector will go
6 unserved if we don't have continued access to the CTP
7 funding.

8 We are interested in continuing the partnership.
9 We have found it to be very successful. And we hope
10 through the course of the plan that we will be able to
11 continue funding through the community colleges' workforce
12 development boards and the labor management partnerships
13 moving forward.

14 And then just a couple -- two last comments. The
15 emphasis has really been in upscaling existing workers with
16 our investments. We have found that basically those are
17 the people already implementing the technologies in the
18 jobs. We support the continuation of that. As well as
19 enhance support wherever possible for the apprenticeship
20 training that requires a broader range of support.

21 And then regarding the Greenlining Institute, we
22 agree both wholeheartedly with reentry employment
23 opportunities and demonstration projects, including car
24 dealerships, municipal permitting and construction.

25 Thanks.

1 UNIDENTIFIED SPEAKER: Larry Engelbrecht.

2 MR. ENGELBRECHT: Hello, Larry Engelbrecht.
3 Educational and program accreditation consultant to L.A.
4 Community College District.

5 Slide number 41, the fourth bullet mentions
6 Sustainable Freight Foundation Certificate. I would just
7 like to comment that on the two bullets above that, Clean
8 Fuels Transportation Pilot Career Opportunity Project. On
9 page 60 it mentions that there were 27 high schools that
10 were involved in this project. And when I looked at the
11 ATL website last night, only three of them were nationally
12 accredited.

13 Imagine how much more advantaged these students
14 could get if they graduated from an accredited program
15 which allows them to get national certification a year
16 earlier. So they would be employable with national
17 certification, nationally recognized industry
18 certification, right out of the gate when they graduate.
19 Then continue on in college to go on to the more advanced
20 programs.

21 If they would do that, I think that would just be
22 an enormous advantage to them. And perhaps we might
23 consider that in the future to maybe require that
24 accreditation for the programs as sort of a -- to
25 incentivize those programs. If we want to get these things

1 here, let's step up and get accredited.

2 I did a study. I posted on my LinkedIn page a few
3 months ago, in the ten southernmost counties of California,
4 I'm from San Diego, four of those counties have credited
5 college automotive programs through ASC, but no feeder high
6 schools. So these high school students, of course they're
7 going to be going to the high schools in their
8 neighborhoods, but then they have to wait an extra year to
9 get the certification.

10 Whereas, if they did that in high school, completed
11 the program, they come out with a -- and this is not a
12 student or entry level certificate. This is a professional
13 technician level certificate. Right out of the gate coming
14 out of high school. And again, in college, if they redo
15 their curriculum, which is a project I've been piloting in
16 Los Angeles, they would be employable, even with a master
17 certification an entire year earlier than other colleges.

18 MR. BARKER: So the question, for those online.
19 Can you explain the automotive services technician -- can
20 you explain what the ASC is?

21 MR. ENGELBRECHT: Many of you have seen the patch
22 on the shoulder. If you look in your owner's manual on
23 some of the GM ones on the back page, they actually show
24 that.

25 ASC certification is for technicians. There's a

1 number of 40-some certifications, including advanced ones,
2 and one of the advanced ones that ASC has is what's called
3 L3, which is advanced level hybrid training. That's
4 already done in a lot of the colleges.

5 The accreditation for the colleges, and that's
6 what's called NATEF, or now the ASC Education Foundation.
7 Those schools that have that training, first off, we know
8 that they're up to the level. That's not saying that
9 programs that are not ASE accredited are not up to speed,
10 but in my experience of seeing them over the years, some of
11 them are hobby shops, you know, and they're having fun
12 doing these things.

13 But we want to get the students on a pathway to a
14 career that is offshore proof and it's just, you know, a
15 great thing all around. The industry is better served.
16 Students have a solid career. The electrical and
17 electronics, that's transferrable to many other fields,
18 including engineering. So I'd like to see it go in that
19 direction.

20 MR. BARKER: Thanks, Larry. So, we've got a few
21 left. Who do we have next?

22 UNIDENTIFIED SPEAKER: Morgan Caswell.

23 MR. BARKER: All right, Morgan.

24 MS. CASWELL: Thank you. Couple of comments. I'm
25 going to focus on the medium and heavy duty questions. And

1 I'll start with a little bit of context that I didn't
2 provide before in case anyone in the room isn't aware of
3 the Clean Air Action Plan that the ports of L.A. and Long
4 Beach put together.

5 So we adopted an update in 2017 with new goals,
6 including zero emissions, completely zero emissions for
7 cargo handling equipment by 2030, and zero emissions for
8 the heavy duty trucks visiting the ports by 2035. So
9 that's in context for where I'm coming from on these
10 comments.

11 I will put a plug for the planning blueprints. The
12 Port of Long Beach executed an EV blueprint for port
13 communities. The goal of this blueprint was to look at the
14 port as a community, as an ecosystem. And the approach was
15 to incorporate all of the stakeholders. So we brought
16 folks together who aren't always in the same room to talk
17 about our challenge. And that included environmental
18 justice organizations, the public, our terminal operators,
19 the utility, bringing in additional technology developers.

20 And what came out of that was a blueprint that
21 looked at five areas. And that included infrastructure,
22 financing, workforce development, the actual equipment to
23 be used, and community benefits. Each one of those areas,
24 we took an inventory of the work we've done thus far, and
25 then we wrote out very prescriptive actions on the steps we

1 need to take to get to a zero emissions port community.

2 One of the larger actions that came out that we're
3 really focused on right now is zero emissions
4 infrastructure terminal master plans. And so that would
5 look at infrastructure on a terminal by terminal basis
6 because the operations are very different on a terminal by
7 terminal basis. So it would look at equipment
8 specifications, operational modeling, terminal layouts,
9 which will likely change as a result of the increased
10 footprint associated with the charging systems, a project
11 schedule, an actual cost estimate. So we imagine
12 significant engineering work to go into these master plans.

13 So this was part of a solicitation the CEC funded,
14 and the blueprint was the first step. And we were told
15 that the second step for those who completed the blueprint
16 is that they would be able to compete for funding to
17 actually implement actions in that blueprint. So I do want
18 to highlight that I don't see that in here thus far, I
19 don't see any mention of that commitment, and that I would
20 encourage that.

21 I would also highlight that the way we wrote the
22 blueprint is that it should be replicable. So other ports
23 should be able to look at that blueprint and replicate it,
24 and make it specifically tailored to their port. So that's
25 something to consider when you're designing that

1 solicitation.

2 I also wanted to highlight the funding challenges
3 that we're experiencing. So, you know, we talk a lot about
4 charge ready and the availability of funding there and it's
5 a very important opportunity for us, I don't want to
6 downplay that. But in our estimates of what it would take
7 just for the Port of Long Beach, not considering other
8 seaports, you're looking at nearly a billion dollars in
9 infrastructure to support the equipment. And again, that
10 doesn't include additional infrastructure for at birth, or
11 for the clean harbor craft, or for the TRUs.

12 So when you look at that program and you see that
13 there's 356 million allocated, and that 25 percent is
14 specifically allocated to ports and warehouses, you very
15 quickly understand that that's not going to be it for us.
16 So this program is very important to seaports, and so I
17 wanted to highlight that.

18 In terms of timing, it sounds like it's a little
19 bit different than maybe some of the other applications
20 that would be funded under the program. I would like to do
21 those terminal master plans first so that the state knows
22 that we are cost effectively installing infrastructure,
23 rather than doing these piecemeal deployments.

24 Lastly, I'll just ask kind of two questions for the
25 CEC, and perhaps you commented on this before and I missed

1 it. But one question I have is relative to the liquidation
2 deadlines. If we are looking at when to phase
3 infrastructure funding, the liquidation deadline is
4 important in that because any public entity has to go
5 through the design, bid, build process. So if it's, you
6 know, all of the funding must be used by 2025, I wouldn't
7 put it in fiscal year 2023, because we couldn't do it.
8 Folks couldn't do the project in that timeline.

9 And then my second question is to what extent there
10 will be adjustments of this plan in the future. I'm not
11 saying that's for good or for better to be able to go back
12 and take a look at it because maybe there's some
13 uncertainty if you go back and change it, but I'm just
14 curious at what that process is if there is a process.

15 MR. BARKER: So I would just quickly comment.
16 Statutorily we have to do an annual update, so we have
17 that. This was to get out of, since there's so many food
18 references, I guess a food fight every single year and to
19 have some more, kind of, solid transparency moving forward.
20 So, yeah, we will continue with this advisory committee.

21 With regard to the blueprints, one of the things we
22 found was we'd utilize light duty. Well, I'll say the
23 majority of the blueprints that we received were mostly for
24 light duty. Yours was unique and because of yours, that
25 made us think to expand to medium and heavy duty

1 applications. And hence that's why we had that
2 specifically in our medium, heavy duty. So but that is to
3 say that we still are planning on going forward with the
4 Phase 2 of the one that you participated in, but that is
5 with previously allocated funds.

6 Who's next, Dorothy?

7 Yeah. Sorry. So again, the encumbrance and
8 liquidation, they're on the -- the year that the funding
9 was allocated. So for the first year that we're looking at
10 here, 2020 to 2021, those would be four years to encumber
11 those funds, and then four years to liquidate. So a total
12 of eight years.

13 The next year's funds, so that next piece of that
14 pie, 2021 to 2022, again, that's four years from that date,
15 and four years to -- so every single -- it's pretty much,
16 it's an eight year -- it's a really, really large window.
17 We haven't had that in the past. So we won't have the
18 issue, I think, that you were noting.

19 UNIDENTIFIED SPEAKER: Jose Lopez.

20 MR. LOPEZ: Hi, Jose Lopez here with Communities
21 for a Better Environment and Urban Habitat.

22 I do want to thank staff and Commissioner Monahan
23 for, you know, getting us here. I do want to highlight one
24 thing about the Staff reports, specifically Chapter 2
25 section on Program Outreach and Inclusion. I really

1 appreciate that commitment to be more inclusive of
2 different communities.

3 Just kind of adding to that, I want to emphasize
4 the need that others have mentioned around doing an
5 assessment, specifically thinking about incorporating clear
6 metrics for doing an equity assessment when thinking about
7 how some of these funding has benefitted or impacted some
8 of the communities that been invested. So thinking about
9 socioeconomic and environmental benefits in general.

10 I do want to add another comment around workforce
11 development. I was really interested to see that other
12 areas do have goals and milestones that want to be achieved
13 and I didn't really see any of those for workforce
14 development so I would encourage us to maybe think about
15 what specifics we want to include. I think it will allow
16 us more leverage to be more committed and definitely
17 identify the workforce development needs in training of
18 different communities throughout the state.

19 Thank you.

20 UNIDENTIFIED SPEAKER: Daryl Lambert.

21 MR. LAMBERT: Thank you to the Commission and staff
22 for preparing this report and for all the presentations.

23 To start off, I just want to acknowledge -- Daryl
24 Lambert with the Rising Sun Center for Opportunity. We
25 fully agree with everything that was mentioned by the

1 California Labor Federation, especially pertaining to high
2 road employers and incentivizing or rewarding them for
3 taking the high road and investing in their beliefs.

4 Additionally, I want to acknowledge that we agree
5 with GO-Biz and employing individuals from disadvantaged
6 communities and doing the work.

7 We agree with everything that Greenlining mentioned
8 in serving the reentry population, community benefit
9 agreements, factoring in just transition, partnering with
10 local businesses and community-based organizations. And
11 then also ETP, with focusing on job quality and upscaling.

12 As I mentioned earlier today, I feel like a lot of
13 workforce can be considered crosscutting across the
14 different goals and activity areas. So I just want to
15 mention that anytime we mention strategic investments and
16 infrastructure, we should also consider adding strategic
17 investments and workforce. Folks to do the work to build
18 that infrastructure. And make a deliberate effort to
19 involve local communities, especially the disadvantage
20 communities, in accessing the benefit that comes out of
21 that work.

22 This is not my area of expertise at all so I won't
23 speak at length here but, and I'll also leave it to others
24 who are more familiar with this area. But kind of in my
25 mind I feel like when it comes to the question between

1 medium duty, heavy duty, and light duty, that maybe flip it
2 or balance it a little bit more.

3 And from a workforce standpoint, and again this is
4 not my area of expertise, but it appears to me that there
5 is more opportunity at a larger scale project to involve
6 more folks, to expose them to the industry, build skills.
7 And then that can be leveraged to span like the smaller
8 projects on the light duty scale. I don't know if anybody
9 has anything to add to that, but I'll leave that to the
10 experts in that field.

11 Moving on to Slide 36. I know we mentioned
12 manufacturing, it was right -- maybe it was 35. No, go
13 back to 36. We mentioned locations of manufacturing and
14 hydrogen production plants. And I'm just curious, we talk
15 about them being located and money being spent into Spanish
16 communities. But I'm curious how many individuals from
17 those communities are actually employed in those positions
18 and how many are actually accessing that, that money that's
19 being spent in terms of kind of a household budget
20 standpoint, right. So are they getting the savings? Are
21 they getting the benefits? Is that hitting their bottom
22 line? And I'd like to see more analysis of that.

23 For all of the companies that are listed on page
24 39, or Slide 39, I'm curious if there's any sort of
25 incentive or local hire requirement that focuses on them

1 hiring from the local area. And also a protection to make
2 sure they're not transporting workers there, which can
3 accelerate electrification and leaves a whole other host of
4 negative rationalities that we'd like to avoid.

5 And then finally on Slide 42, question number two,
6 what approaches and priorities should we apply toward
7 future investments and workforce development? I would
8 encourage exploring ways to fund supportive services.
9 That's job placement, barrier removal, making sure that
10 we're focusing on soft skills development, especially when
11 we're working with individuals from disadvantaged
12 communities. That's more important. It's little more
13 costly, but it leads to greater outcomes.

14 Quantifying impact with the inclusion of access to
15 careers, not just numbers. Sorry, access of individuals
16 from disadvantaged communities, access to careers. And
17 also funding outreach and public education focused on
18 individual communities outreach community about these
19 career opportunities and the resources available to them to
20 access them.

21 And I believe that was all I had.

22 MR. BARKER: All right. And we have another
23 Advisory Committee member, Heidi, did you have any
24 comments? Okay.

25 MS. SICKLER: Wonderful presentation.

1 MR. BARKER: Oops. Sorry. Go ahead.

2 MS. SICKLER: Thanks. I think I got cut off.

3 Heidi Sickler with the Leadership Group.

4 I just want to thank the Commissioner and thank the
5 CEC Staff for a wonderful presentation and all of the work
6 that you put into it.

7 My question is for your EVI pro team and average
8 (inaudible) per customer. I'm wondering if the EVI pro
9 makes any assumptions with regard to EV charging as a
10 service. So, in other words, the EVSC provider would lease
11 the EV infrastructure to site host, enabling use of their
12 operating budget instead of their capital outlay. And
13 wondering if there would be any costs savings associated if
14 CALeVIP were opened -- open eligibility is EV charging as -
15 - as a leasing service.

16 So we're seeing that currently in the heavy duty
17 sector where the batteries are actually leased to transit
18 agencies and that can lead to cost savings. So just
19 something to consider.

20 I'm not looking for an answer today, but overall,
21 just thanks very much for the opportunity.

22 MR. BARKER: Thanks, Heidi.

23 All right. So with that, I think we move on to
24 public comment. Does that work?

25 So for those folks, I think we do have a couple

1 public comments. Dorothy? We're going to start with the
2 folks in the room. Blue cards.

3 Dorothy, I think this gentleman right behind you.
4 Didn't he turn one in? Okay.

5 MR. LEVIN: Slide 27. Jaimie Levin with the Center
6 for Transportation and Environment. We're a nonprofit
7 that's developing fuel cell buses, battery buses, trucks,
8 off-road vehicles.

9 And I'd like to speak to what several have already
10 commented on with respect to the priority of public
11 transit. And to give you a sense of this, I'd like to
12 explain what's evolving with the market. Fuel cell buses,
13 thanks to CARB's funding for pilot projects, we're
14 unveiling, as we speak vehicles that are meeting one-to-one
15 replacement for conventional technology with over -- a
16 capability of over a 300-mile range. And what this is
17 doing is it's driving the transit industry. Michael
18 Pimentel spoke about the industry's issues and their
19 challenges, but it's driving them towards looking more
20 seriously now at fuel cell buses because they can do what
21 they need them to do.

22 And the real challenges in infrastructure, and
23 luckily the priority should be given to infrastructure,
24 given that CARB is already addressing the vehicle side, but
25 no longer addressing infrastructure. And so with respected

1 to that -- that demand, we now have, we recently uploaded
2 to the CEC docket, 18 letters from transit agencies in the
3 valley, Southern, Northern California that want to deploy
4 fuel cell buses. Some of these are agencies that already
5 have electric, battery, electric vehicles deployed.

6 And we have just last week two transit agencies
7 whose boards adopted approval to purchase 20 fuel cell
8 buses each. One agency that already has fund -- capacity
9 at their station of over 30, upwards of 50 buses. And
10 another that needs funding for infrastructure.

11 So the demand is there. It's scalability and
12 several of you have talked about the importance of
13 scalability. Look, the real challenge here is we don't
14 have enough money. In California, it spends more money on
15 this than all of the federal government. We're kind of the
16 Singapore of the United States here when it comes to clean
17 energy. So we do need to have priorities. If we spread
18 everything out so far, we're not going to be able to
19 accomplish what we need to accomplish.

20 So I would emphasize, as a last point, that it's
21 really important to have coordination with other funding
22 sources. CARB's doing freight, freight with infrastructure
23 is part of that. We need, CEC as you are working with
24 CARB, to also coordinate with the air districts around the
25 state. With their funding sources, Carl Moyer, et cetera.

1 And also there are county governments that have funding
2 sources. Otherwise we're not going to be able to make the
3 dent that we're trying to in commercialization.

4 One last comment is we should be looking at
5 resiliency. As we develop these technologies, resiliency
6 to respond to natural disasters. We know all about
7 earthquakes. We are now faced with fire threats and we
8 have to put our resources in the right direction.

9 MR. BARKER: Thank you, Jaimie.

10 Do we have -- I don't believe we have any other
11 public comment in the room. We have some online. We are
12 limiting public comment to two minutes.

13 COMMISSIONER MONAHAN: We'll start with Jennifer
14 Case.

15 MS. CASE: Hello, can you hear -- hello, can you
16 hear me?

17 COMMISSIONER MONAHAN: Yes, we can.

18 MS. CASE: Okay, great. Thank you to everybody. I
19 really appreciate it. I'm going to talk pretty fast
20 because I thought I had three minutes.

21 Specifically Slide 36 I was glad to see, which is
22 the slide that talks about biofuel infrastructure. My
23 company who is Biofuel, has been a biodiesel producer in
24 San Diego since 2006, and we're grateful to have been the
25 recipient of two clean transportation grants over the last

1 few years. We're currently executing on one of those,
2 which is increasing our capacity from 5 to 12 million
3 gallons.

4 Towards the end of last year, we reached out to
5 Staff to make you aware of a unique problem that California
6 faces with biodiesel producers. The problem is that
7 California low carbon fuel standards have been trading at
8 over 200 metric tons, which is great. But it's a good
9 thing because it adds value to our very low carbon
10 biodiesel. But the problem is, it also attracts biodiesel
11 from all over the world since other markets are often not
12 as profitable and far less expensive to operate in
13 California. The result is that we get far more biodiesel
14 coming into our state than the actual market infrastructure
15 can absorb, resulting in a perpetual glut, which forces all
16 of the prices to be deeply discounted sometimes to levels
17 that become unprofitable for California producers. That's
18 why we often see an underutilization of California
19 biodiesel production capacity, even in our 3.5 billion
20 gallon a year diesel market.

21 So the solution is to increase storage and blending
22 distribution infrastructure in the state with an emphasis
23 on nontraditional, nonpetroleum infrastructure development.
24 New Leaf has been working on such a project with one of our
25 partners, MHX Solutions, at their terminal in Fontana,

1 which is about ten miles west on the I-10 from Kinder
2 Morgan BOLT fuel terminal in Colton. We've been
3 transloading biodiesel there for several years to
4 supplement our own production in anticipation of our
5 expansion at our San Diego facility. We're also
6 contemplating a further expansion to include storage at
7 this Fontana, but we need some financial help to make that
8 a reality.

9 We project that our MHX partnership will displace
10 close to 100 million gallons per year of petroleum diesel -
11 -

12 COMMISSIONER MONAHAN: So Jennifer.

13 MS. CASE: -- with one of renewable diesel and
14 biodiesel. Yes.

15 COMMISSIONER MONAHAN: Sorry, you've
16 been -- you've exceeded the two minutes, and we're -- do
17 you have one final sentence?

18 MS. CASE: Yes, we project that MHX partnership
19 will displace close to 100 million gallons per year of
20 petroleum diesel. These renewable blends will be almost
21 exclusively sold in seven -- Class Seven and Eight truck
22 fleets to operate in California. So this will be a great
23 use of the funds.

24 COMMISSIONER MONAHAN: Great. Thank you.

25 MS. CASE: Thank you.

1 COMMISSIONER MONAHAN: Our next public commenter is
2 Eleni Petrow.

3 MS. PETROW: Hi. Thank you. Can you hear me?

4 COMMISSIONER MONAHAN: Yes, we can.

5 MS. PETROW: Hi, I just want to thank the Energy
6 Commission and the advisory committee for holding this
7 workshop. I also want to say that I appreciate the
8 multiyear funding plan approach because it allows us to
9 look ahead and plan better and provide better feedback.

10 And I also want to echo the comments we've heard
11 about the medium and heavy duty infrastructure funding in
12 the sense that I agree with moving up the timeline and not
13 waiting too long to make funding available for medium and
14 heavy-duty infrastructure.

15 Commercial production of electric trucks is
16 continuing to grow and there's a critical need for medium
17 and heavy duty infrastructure to support sustainable goods
18 movement. And this is especially important when
19 considering that key transit corridors run through
20 historically disadvantaged communities with
21 disproportionately poor air quality, and zero emission free
22 transport is closely aligned with the CEC goals to
23 prioritize investments that directly benefit these
24 disadvantaged communities.

25 Thank you.

1 COMMISSIONER. MONAHAN: Great. Thank you.

2 The next public speaker, Mark Roest.

3 MR. ROEST: (Indiscernible.)

4 MR. BARKER: Okay. Mark, Mark?

5 MR. ROEST: (Indiscernible.)

6 MR. BARKER: Mark, can you hear me?

7 MR. ROEST: -- which is well under (indiscernible)

8 kilowatt hour and 36 percent less efficiency

9 (indiscernible) --

10 MR. BARKER: Mark, can you hear me?

11 MR. ROEST: -- (indiscernible) mass production in

12 one to two years.

13 MR. BARKER: Okay. Let's go back to Mark.

14 MR. ROEST: -- (indiscernible) meet needs.

15 MR. BARKER: Mark.

16 MR. ROEST: (Indiscernible) on rooftops and on

17 (indiscernible) canopies to provide the energy needed

18 (indiscernible).

19 MR. BARKER: Sorry, Mark, we couldn't hear you.

20 We're going to have to come back to you. We'll try again

21 later.

22 COMMISSIONER MONAHAN: So next, James Dumont.

23 MR. DUMONT: Good afternoon. This is James Dumont

24 with Momentum.

25 I wanted to briefly go through some of our

1 points. First, as to the hydrogen stations, we fully
2 believe that funding should continue until after the
3 state's achieved its goal of 100 operational hydrogen
4 stations. Yet we would encourage the Commission to rapidly
5 transition its focus on 2MHD -- sorry, medium and heavy
6 duty hydrogen infrastructure upon achieving the state's
7 station goal while striking a balance between the needs of
8 the light duty and medium and heavy-duty.

9 On the medium and heavy duty infrastructure in
10 ZEV manufacturing, we would like to suggest that the CEC
11 funnel significant funding towards the ZEV blueprints,
12 regional readiness, and large facility-level planning in
13 2020 and 2021. And we'd also encourage the CEC to return
14 to some of its roots to invest in hybrid and zero emission
15 power train technologies for industries that have remained
16 underserved and the hardest to decarbonize, including
17 marine, rail, and agriculture.

18 And lastly on MHD, infrastructure, and vehicles,
19 we'd like to encourage the CEC to continue identifying
20 opportunities to support an early compliance with the
21 forthcoming regulations. Yet I think we need to pay close
22 attention to the forthcoming 2023 Clean Air Act, non
23 (indiscernible) area targets, since there have been threats
24 from the federal government to take repercussions against
25 us.

1 On workforce development, we strongly all of the
2 workforce development opportunities that have been funded
3 by the Energy Commission. Yeah, I think it may be time to
4 fund train the trainer programs to share curricula
5 developed under CEC agreements, with additional high
6 schools, community colleges, grade schools, and
7 universities.

8 And lastly, on the low carbon fuel production
9 front, we believe that the state investments and
10 alternative fuels have been immensely successful in
11 supporting the mason industries as they compete against the
12 entrenched oil majors. We'll soon have significant amounts
13 of low and negative carbon RNG available in California that
14 could be used to also develop negative carbon or zero
15 carbon hydrogen for the medium and heavy-duty industries.

16 Thank you very much, and we look forward to
17 working with you on this over the coming months and years.

18 COMMISSIONER MONAHAN: Great. Thank you.

19 Next, Reed Wildman.

20 MR. WILDMAN: For the CEC to step aside 5 million
21 of available prior year grant funds for a hydrofoiling fast
22 ferry prototype. We submitted a proposal that -- it should
23 be visible on the docket for more information after this
24 meeting. We're both San Francisco Bay Area residents. I'm
25 a former Air Force officer and ex-Bain consultants, and

1 Ander is a hydrofoil racing sailboat designer and Olympic
2 sailing coach.

3 A grant of this size, if structured correctly,
4 would be sufficient to demonstrate a passenger ferry with
5 safe operating speeds of 50 knots versus 34 knots in the
6 San Francisco Bay ferry fleet today, while reducing fuel
7 consumption by 50 percent. This is newly possible because
8 of the maturation of four key technologies, principally
9 hydrofoiling that is used in America's Cup racing boats.
10 That said, they still need to be demonstrated in a ferry
11 prototype before they're ready for potential customers like
12 San Francisco Bay ferries.

13 Five million should be sufficient to prototype a
14 subscale model to demonstrate all key technologies, which
15 they can then use to justify new fleet purchases at full
16 size. This would enable a step change in ferry
17 performance. Not only reducing emissions by 50 percent or
18 more, but also making ferry transit more competitive with
19 driving, shifting more users to public transit. You would
20 cut the Vallejo to San Francisco ferry trip in half from 60
21 minutes to 30 minutes. And enable new long-distance routes
22 to San Francisco from Antioch, for example.

23 This is an equitable investment because it serves
24 commuters and also has a number of other benefits from
25 comfort to reducing environmental impact.

1 Thanks for your time.

2 COMMISSIONER MONAHAN: Great. Thank you.

3 We have three more public commenters. The next
4 is Rustam Kocher. Is he gone? We have two more.

5 Oh, back to, well, let's try for Brian Goldstein.
6 We have one more. We're going to try Mark again. Mark
7 Roest? We're going to try to see if we can hear you this
8 time.

9 MR. ROEST: So the PV can be used on rooftops and
10 on solar canopies to harvest twice as much per square foot
11 as with today's technologies, at lower cost. And that
12 makes it possible to provide the energy needed for both
13 buildings and the vehicles associated with them, stored in
14 onsite batteries to hold for need. This should be financed
15 especially for those least able to obtain financing. And
16 we expect to have enough margin to be able to provide it
17 once we are in sole production.

18 The canopy plan works residential, commercial,
19 industrial, and even agricultural. Inhibits drying out of
20 crops and supports crops that are -- need partial shade.
21 This idea, this approach is ideal for truck stops, space
22 between concentrations of depots and ports. The solar
23 canopy would cover entire truck stops and can be extended
24 over adjacent land and streets on street parking.

25 It can protect the grid from demand surges,

1 enable truckers who might form a cooperative with the truck
2 stops to get out from most operating costs once the
3 financing is paid off, and provide shade for people and
4 refrigerated trucks, especially welcome in the great
5 Central Valley.

6 By mass production, I mean tens of gigawatts gig
7 solar and hundreds of gigawatt hours as batteries per year.
8 It would be produced in mature production facilities
9 adapted from other industries.

10 CHAIR MONAHAN: Mark, that's -- it's been two
11 minutes so you're going to have to -- I'm sorry, we're
12 going to have to --

13 MR. ROEST: You got my -- you got the shot.

14 CHAIR MONAHAN: So I just wanted to emphasize
15 that for folks that were not able to -- either we had to
16 cut you off, because it was longer than two minutes or you
17 weren't even able to get on because there was something
18 wrong with apps and sorry about that, we definitely --
19 we're going to have a process around public comments
20 received through written comments and Patrick is going to
21 walk through next steps which will include how to submit
22 comments to the docket.

23 MR. BRECHT: Yes. Thank you. Excellent meeting.
24 We'll be incorporating the input from today's meeting along
25 with the comments from the -- in the docket. We'll be

1 incorporating those into the next version of our Investment
2 Plan. We will release the Lead Commission Report in April.
3 We'll then hold a second advisory committee meeting and
4 we're still determining where, exactly where and exactly
5 when that meeting will be. We'll try to determine that as
6 quickly as possible.

7 So let me show this slide. We encourage you to
8 submit your comments to our docket. The deadline is the
9 17th to ensure we incorporate those into the next Investment
10 Plan, but we always will take your comments on the docket.
11 So here we have just more information about our program.
12 Of course, the e-comment link is mentioned in the middle.
13 And if you have any questions, you can always contact me at
14 that number or that e-mail address.

15 I guess I'll just turn it back over to you,
16 Commissioner Monahan.

17 COMMISSIONER MONAHAN: Well first off, I want to
18 acknowledge again how much we appreciate all your input. I
19 mean, this has been a long day, and a lot of people to go
20 through, you know, in terms of hearing. And as I said at
21 the initial stage, we're all coming at this from a sort of
22 a different understanding of this program, and we really
23 appreciate the diversity of opinions that we've gotten.

24 I would encourage you, again, as you have
25 thought, oh no, I didn't say this, or I want this, or I

1 should have elaborated on that, please send comments to the
2 docket. We're looking at every single comment that goes
3 through, we're going to evaluate what to do with every
4 comment. So I would just strongly encourage you, if you
5 feel like I didn't -- you didn't quite communicate what you
6 wanted to, use our docket system.

7 If you feel like you did communicate what you
8 wanted to, we've been recording so you don't have to say it
9 again unless you really, really want to spend time writing,
10 which some people do.

11 And, yeah, we look forward to getting, you know,
12 together with you to the finish line on an Investment Plan
13 for the next three and a half years that we can all feel
14 proud of. And that you should all feel some sense of
15 ownership over helping us to design a program that is going
16 to be able to address, you know, California's needs to
17 clean up our transportation system, and we're really
18 motivated to bend the curve on transportation pollution.

19 Our number one source is going the wrong way and
20 if we can't fix it here in California, we cannot fix it
21 anywhere. So, I mean to me this is why I came to
22 California. This is why I'm working on this issue.
23 Because I am fairly optimistic that we're going to be able
24 to do it. We have the right set of agencies. We have the
25 right investment portfolios going forward. We have the

1 right groups engaged around the table to help us structure
2 our investments to be the most effective.

3 So just want to thank you all. And more to come.

4 MR. BARKER: We're adjourned.

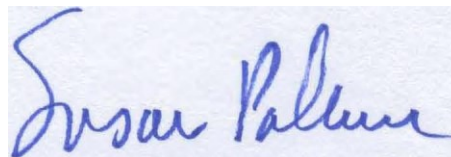
5 (The meeting was adjourned at 4:09 P.M.)
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

REPORTER' S CERTIFICATE

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 16TH DAY OF MARCH, 2020.



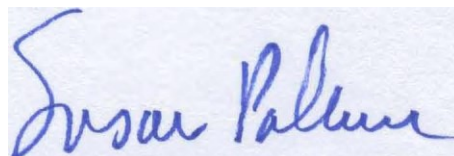
SUSAN PALMER
CERTIFIED
REPORTER
CERT 00124

TRANSCRIBER'S CERTIFICATE

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 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 16th day of March, 2020.



Susan Palmer
Certified
Reporter
CERT 00124