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CALIFORNIA ENERGY COMMISSION

In the matter of:

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for the Clean Transportation)
Program)
_____)

PUBLIC MEETING OF THE ADVISORY COMMITTEE FOR THE
CLEAN TRANSPORTATION PROGRAM INVESTMENT PLAN

TRANSCRIPT OF PROCEEDINGS

REMOTE VIA ZOOM

THURSDAY, APRIL 27, 2023

9:00 A.M.

Reported by:

Martha Nelson

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Lori Pepper, California State Transportation Agency

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P R O C E E D I N G S

9:06 a.m.

THURSDAY, APRIL 27, 2023

MR. BRECHT: Good morning, everyone. Welcome to the first Advisory Committee meeting for the Clean Transportation Program's 2023 to 2024 Investment Plan Update. I'm the Investment Plan Project Manager, and I want to thank you all for being here, albeit virtually.

I'll start off with roll call, and I will say your name, and perhaps you can repeat your name and affiliation. Okay.

Mary Solecki?

COMMITTEE MEMBER SOLECKI: Hi. Good morning. Mary Solecki with AJW.

MR. BRECHT: Thanks, Mary.

Bill Elrick?

Eileen Tutt?

COMMITTEE MEMBER TUTT: Good morning. This is Eileen Tutt. I'm with the Electric Transportation Community Development Corporation.

MR. BRECHT: Thanks, Eileen.

Matt Gregori?

COMMITTEE MEMBER GREGORI: Good morning. Matt Gregory, SoCalGas Research, Development, and Demonstration.

MR. BRECHT: Gia Vacin?

1 COMMITTEE MEMBER VACIN: Good morning. Yes, Gia
2 Vacin with the Governor's Office of Business and Economic
3 Development in the Zero-Mission Vehicle Market Development
4 Team.

5 MR. BRECHT: Thanks, Gia.

6 Lisa Macumber?

7 COMMITTEE MEMBER MACUMBER: Good morning. Lisa
8 Macumber with the Equitable Transportation Incentives at
9 the California Air Resources Board.

10 MR. BRECHT: Thanks.

11 Lori Pepper?

12 COMMITTEE MEMBER PEPPER: Good morning. Lori
13 Pepper with the California State Transportation Agency.

14 MR. BRECHT: Robert Meyer?

15 Bill Magavern?

16 Will Barrett? (Clears throat.) Excuse me.

17 Katherine Garcia?

18 COMMITTEE MEMBER GARCIA: Hi. This is Katherine
19 Garcia with Sierra Club. Good morning.

20 MR. BRECHT: Good morning.

21 Samantha Houston?

22 COMMITTEE MEMBER HOUSTON: Hello. Sam Houston
23 here with Union of Concerned Scientists.

24 MR. BRECHT: Thanks.

25 Miles Muller? I think he's here. He's in the

1 process of being promoted. Okay.

2 Kevin Hamilton?

3 COMMITTEE MEMBER HAMILTON: Kevin Hamilton,
4 Leader of Central California Asthma Collaborative. Good
5 morning, everyone.

6 MR. BRECHT: Great. Thank you, Kevin.

7 Jose Lopez?

8 Ruben Aronin? (Clear throat.) Excuse me.

9 Casey Gallagher has notified me he cannot make
10 the meeting.

11 There's Jose JB Tengco?

12 Mika Mitrosky has notified me she cannot make
13 this meeting.

14 Larry Engelbrecht?

15 John Frala?

16 COMMITTEE MEMBER FRALA: Good morning, everyone.
17 John Frala, Professor at Rio Hondo College.

18 MR. BRECHT: Great. Thanks, John.

19 Morgan Caswell?

20 COMMITTEE MEMBER CASWELL: Good morning. This is
21 Morgan Caswell from the Port of Long Beach.

22 MR. BRECHT: Jerome Qiriazzi? Sorry, did I put
23 your last name? I'm sorry.

24 COMMITTEE MEMBER QIRIAZI: It's okay. Morning.
25 Jerome Qiriazzi, Humboldt Transit Authority.

1 MR. BRECHT: Thanks, Jerome.

2 Michael Pimentel?

3 Tracy Stanhoff?

4 COMMITTEE MEMBER STANHOFF: Good morning,
5 everybody. It's Tracy Stanhoff with the American Indian
6 Chamber, a small business owner here in California and
7 former tribal chair of the Prairie Band Potawatomi.

8 MR. BRECHT: Thanks, Tracy.

9 Dylan Jaff has notified me that he cannot make
10 this meeting.

11 Joel Levin, I believe, is unable to make this
12 meeting.

13 And Morris Lum?

14 COMMITTEE MEMBER LUM: Good morning, representing
15 Recreational Boaters of California.

16 MR. BRECHT: Great. Thank you, Morris.

17 Okay, we have a quorum and we can continue.

18 I just need to go over a couple of housekeeping
19 items.

20 This meeting is being recorded. We ask that you
21 mute yourself when you're not speaking, star six for those
22 on the telephone.

23 The transcript of this meeting will be made
24 available on the Energy Commission website.

25 There will be an opportunity for public comments

1 at the end of the meeting and written comments submitted to
2 the docket are strongly encouraged. This slide -- I'm
3 sorry, next slide -- this slide provides the location of
4 the Docket 23-ALT-01, as well as the location to submit
5 comments. I should add, the deadline to submit comments to
6 the docket is May 11th at 5:00 p.m.

7 We ask that Advisory Community members to
8 indicate that they would like to speak or comment by using
9 the raise hand feature. We would also like you to identify
10 yourself before we speak. Telephone participants, dial
11 star nine to raise your hand.

12 Next slide.

13 Now as for the agenda, we'll have opening remarks
14 from Commissioner Monahan shortly. I will provide a brief
15 overview of the Clean Transportation Program and Investment
16 Plan process. We'll then transition to ZEV planning and
17 analysis activities, which will include charger count and
18 target gap updates to the Assembly Bill 2127 report, the SB
19 1000 report, EVSE reliability, ZEV infrastructure plan, or
20 ZIP, the AB 8 Report and hydrogen station count and gap,
21 and the SB 643 report.

22 We'll then transition to Clean Transportation
23 Program funding activities, which there are many. We've
24 been very busy. We'll also cover federal funding followed
25 by community benefits and tribal communities outreach.

1 I will then pause for questions. I will then
2 provide a brief overview of the Draft Staff Report version
3 of the '23 to '24 Investment Plan Update, which includes
4 proposed funding allocations, which are unchanged from last
5 year's multiyear funding plan.

6 We'll then have an Advisory Committee discussion
7 on the '23 to '24 Investment Plan Update, followed by
8 public comment and ending with closing remarks.

9 And with that, I will now turn it over to
10 Commissioner Monahan for opening remarks.

11 COMMISSIONER MONAHAN: Alright. Thanks, Patrick.

12 Well, welcome, everybody. Thanks for joining us
13 this morning. And as Patrick noted, we have kind of a
14 packed agenda. I think there's been a lot of work that the
15 team has done to distribute the funding that we currently
16 have. And we want to use this conversation as a way to
17 inform our Investment Plan going forward.

18 So as you recall, we have established these
19 multiyear Investment Plans in order to provide some
20 certainty going forward for stakeholders and for potential
21 grantees about where investments are going to be. But of
22 course, every year there's a process, a budget process, to
23 see how much money actually ends up in our in our hands.
24 And so this meeting is happening before we fully know what
25 the budget is going to look like. So we'll have another

1 one once we have some certainty about what the budget is
2 going to be.

3 And these meetings really inform changes,
4 revisions that we should make to the plan going forward.
5 We want to be nimble to opportunities and also to
6 challenges. I mean, I think our funding is really best
7 suited for overcoming roadblocks to making sure that
8 everyone gets access to the benefits of clean
9 transportation.

10 And some of the things we're seeing just which
11 we'll talk about later, too, is the market is accelerating,
12 especially in the light-duty vehicle space. For those who
13 haven't checked out our ZEV dashboard, it's a site that
14 tracks zero-emission vehicle sales, infrastructure, as well
15 as on road vehicles. We've reached the 1.5 million ZEVs
16 sold, which is the state target set by Governor Brown two
17 years early. So in Q1 of this year, we hit that target.
18 And we're finding, while Tesla is still leading the light-
19 duty market, their market share is decreasing. And you may
20 see you may have seen that Tesla is really slashing the
21 prices of their vehicles right now, so if you're
22 interested, the prices is the price is pretty good.

23 And the reason why we're missing some Advisory
24 Committee members is because CARB is poised to pass
25 Advanced Clean Fleets for Trucks, and new rules for

1 locomotives today. So that these are really foundational
2 regulations that are helping to drive the market, not just
3 for passenger vehicles, but I think we're going to see that
4 same acceleration on the medium- and heavy-duty front.

5 And I want to recognize Lisa Macumber from CARB
6 who is here today to represent CARB. Many people at CARB
7 are actually at that board meeting. Really, it's a big
8 day.

9 So I just want to acknowledge that we have a lot
10 of flexibility when it comes to the \$100 million per year
11 that came through the original authorization package, that
12 was AB 118 reauthorized by AB 8. That's set to expire at
13 the end of this year, so at the end of 2023, it's set to
14 go. That would zero out money, the \$100 million per a year
15 that comes to us mostly for ZEB infrastructure, but not
16 solely. We've also been funding biofuels and other
17 investments with that, as well as several programs that
18 CARB manages.

19 The governor is proposing in his budget to extend
20 those fees through 2035. So I just want to highlight that
21 for folks that are involved in the legislative process,
22 that that's a big priority from our perspective, the monies
23 that come from the General Fund, which have been
24 significant in past years.

25 Last year, you'll recall we passed a \$2.9 billion

1 Investment Plan. But we do listen to the advice of this
2 Advisory Committee so I don't want to, you know, in terms
3 of while we can't change categories in the General Fund,
4 those are fixed, we do have some flexibility within the
5 category to make some adjustments.

6 So with that, I'm going to pass it back to
7 Patrick to kind of go through what we've been doing with
8 the monies that we have. And then we'll look forward and
9 talk about what we should do going forward.

10 MR. BRECHT: Thanks, Commissioner Monahan.

11 I just want to add that we have two members
12 who've joined us, so maybe we can take care of that right
13 now.

14 Robert, did you want to state your name and your
15 affiliation?

16 COMMITTEE MEMBER MEYER: Good morning, everybody.
17 Robert Meyer, Employment Training Panel. Glad to be here.

18 MR. BRECHT: Thanks, Robert.

19 And Bill Elrick? I think Bill has joined us, but
20 maybe he's having some audio issues, but we'll continue.
21 Okay.

22 Yes, I'm just going to go over the origins of our
23 program, a few things that you've heard before, but we
24 might be new to some people.

25 So next slide. Next slide. Thank you.

1 The Clean Transportation Program was established
2 by the California Assembly Bill 118 in 2007. The program
3 is funded through a small surcharge of California vehicle
4 registrations and provides up to \$100 million per year, on
5 a full fiscal year, that is. California Assembly Bill 8
6 extended the program to January 1st, 2024. Governor
7 Newsom's administration has proposed an extension of the
8 program as part of the twenty three to twenty four
9 governor's budget. And we certainly hope that happens.

10 The Clean Transportation Program provides funding
11 support for projects that reduce greenhouse gas emissions
12 within the transportation sector, which accounts for
13 roughly 50 percent of state greenhouse gas emissions.
14 Furthermore, the program plays an important role in
15 improved air quality, investments in low-income and
16 disadvantaged communities, economic development and
17 recovery, job growth and workforce development, petroleum
18 reduction, and adoption of zero-emission vehicles.

19 Next slide.

20 Now in its 15th year, the program has provided
21 over \$1.5 billion to alternative fuel and vehicle
22 technology projects in communities that can immediately
23 accrue health, environmental, and economic benefits from
24 these investments. The program has been an essential part
25 in making California near and zero-emission leader in the

1 states, actually.

2 This slide shows key outcome from the program,
3 the key programs, through March '23. The program has
4 funded 23,800 installed or planned chargers for plug-in
5 electric vehicles. The CEC expects to reach 204,000 Level
6 2 charger mark in 2026. And the CEC anticipates reaching
7 10,000 DC fast charger goal at in 2023, which is this year.
8 Creative, innovative, and efficient Block Grants for both
9 light-duty and medium- and heavy-duty ZEV infrastructure.

10 We've also supported a large network of hydrogen
11 fueling stations in the nation with 78 funded hydrogen fuel
12 stations, fueling stations, plus approval to fund an
13 additional 74 of these stations. Thirteen will accommodate
14 medium- and heavy-duty vehicles, as well as passenger
15 vehicles, and sufficient funding from the General Fund to
16 reach the 2025 200 hydrogen station goal.

17 The program has created workforce training from
18 more than 32,000 trainees and 277 businesses. We funded 27
19 manufacturing projects supporting in state economic growth.
20 The CEC is developing funding agreements for 13 additional
21 in-state ZEV manufacturing projects using one-time funding
22 from the General Fund.

23 There's been launching of 71 projects to promote
24 the production of sustainable low carbon alternative fuels
25 within California. Most of the projects use waste-based

1 fuel stocks, which have been the lowest carbon intensity
2 pathways of alternative fuel within the state.

3 And there's also been the leveraging of over \$1.1
4 billion in private and other public funds.

5 Next slide.

6 Now today we'll discuss the Draft Staff Report
7 version of the '23-24 Investment Plan Update with the Clean
8 Transportation Program. The program funding allocations
9 remain the same as indicated in last year's multi year
10 plan. This document updated annually serves as a basis for
11 the program's funding opportunities for each fiscal year.
12 However, the Clean Transportation Program is set to sunset
13 at the end of 2023 unless extended by the legislature and
14 as mentioned earlier. And as mentioned earlier, the Newsom
15 Administration is looking to extend our program in their
16 most recent budget.

17 The allocations reflect consideration of state
18 and federal policies, regulations, as well as coordination
19 with state agencies such as the California Resources Board
20 and the California Public Utilities Commission, among
21 others. The Investment Plan lays out how the coming fiscal
22 funds will be allocated across different fuels, vehicle
23 sectors, and supporting activities. The document is vetted
24 through a public review process that involves multiple
25 iterations of the document and meeting with our Advisory

1 Committee. And finally, the Investment Plan sets
2 allocations for various funding categories, not individual
3 projects.

4 Next slide.

5 In preparing the Investment Plan, the CEC seeks
6 to increase the participation of disadvantaged and
7 underrepresented communities from a diverse range of
8 geographical regions. The CEC also seeks to effectively
9 engage communities disproportionately burdened by pollution
10 and improve economic resiliency, including rural and tribal
11 communities.

12 And these commitments and efforts include seeking
13 to provide 50 percent of funds to projects that benefit
14 low-income disadvantaged communities. There's consulting
15 with the Disadvantaged Communities Advisory Group for
16 guidance and recommendation. There's consulting with our
17 public advisor's office, the Tribal Program and the Tribal
18 Lead Commissioner for assistance and outreach promoting
19 transportation related funding opportunities to tribes, and
20 we'll talk about that later in the presentation. And then
21 there's assessing whether electric vehicle charging station
22 infrastructure is disproportionately distributed as
23 examined by the SB 1000 analysis.

24 Next slide.

25 Now, program staff is planning a public process

1 or is in the middle of defining, measuring and tracking,
2 and targeting more community benefits and explore community
3 benefits that go beyond project location and GHG
4 reductions, such as health, mobility options, economic and
5 more. We held our first community benefits workshop in
6 November of 2022. And the second one was just this last
7 March. And my colleague, Larry Rillera, will share more
8 about this later in the presentation.

9 Now let me shift to provide context for
10 developing the program. The allocations and
11 implementation.

12 Next slide. Sorry.

13 The allocations and implementation of the program
14 reflect the effects of numerous policies and goals by
15 legislature, regulation and executive order. The net
16 results of these policies have been to steer the program
17 towards zero-emission fuels and technologies, such as the
18 targets we have listed on this slide.

19 Next slide. Actually, if we can go back? If you
20 can go back? I'm sorry. Thank you.

21 Setting specific goals to boost to boost supply
22 of zero-emission vehicles, or ZEVs, as well as charging the
23 fueling stations, including by 2025, reaching the 1.5
24 million ZEV mark, which as Commissioner Monahan mentioned,
25 we hit that in Q1 of this year, two years early, so that's

1 great, installing 200 hydrogen fueling stations and 250,000
2 battery electric vehicle chargers, including 10,000 direct
3 fast chargers by 2025, and by 2030, reaching at least five
4 million ZEVs on the road.

5 Next slide.

6 So by 2035, achieving 100 percent of new sales of
7 passenger vehicles and trucks to be ZEVs, this is
8 strengthened by CARB's Advanced Clean Cars II Regulations,
9 which we'll discuss later in this presentation. There's
10 transition to 100 percent of drayage trucks, transitioning
11 100 percent of operating off-road vehicles and equipment to
12 zero-emission wherever feasible. And this, of course, is
13 strengthened by CARB's Advanced Clean Trucks Regulation.
14 By 2045, transitioning 100 percent of operating medium- and
15 heavy-duty trucks, and buses to zero-emission by 2045 where
16 feasible.

17 Next slide.

18 Now what's informing the Investment Plan?

19 I'm sorry, next slide. Thank you.

20 What informs the Investment Plan? We have the AB
21 2127 Report, or the Electric Vehicle Charging
22 Infrastructure Assessment, which is analyzing charging
23 needs to support zero-emission vehicles in 2030. There's
24 the SB 1000 Report, or Electric Vehicle Charging
25 Infrastructure Deployment Assessment. We also have

1 consulting and coordination with those state agencies
2 through the Zero-Emission Vehicle Infrastructure Plan, or
3 ZIP. And we'll have updates on the planning and timeline
4 details later in this presentation on all three of those
5 items. And as mentioned earlier, too, there's consulting
6 with our Disadvantaged Communities Advisory Group.

7 Next slide.

8 Now this slide shows the Investment Plan process
9 and schedule. I'm sorry, it's a little bit small. The CEC
10 published the Draft Staff Report on April 24th. The first
11 Advisory Committee meeting is taking place today. Comments
12 will be due May 11th and there will be a Commissioner-level
13 review of those comments from the Advisory Committee, plus
14 docket submissions from the public. We'll then publish the
15 revised Staff Report end of September. We'll hold the
16 second Advisory Committee meeting in October and once
17 again, review of feedback and consultations with
18 disadvantaged communities advisory group.

19 The Lead Commissioner Report is then published
20 and brought to the CEC business meeting for approval
21 currently set for December. The approval provides the
22 plan's funding allocations for the half fiscal year, which
23 is '23-24, and signals the plan General Fund allocation
24 through Fiscal '25-26, Fiscal Years '25-26.

25 Now with that, let me turn it over to Mike

1 Nicholas. He will present various ZEV planning and
2 analysis activities.

3 So thanks, Mike.

4 MR. NICHOLAS: Alright. Yeah. So good morning.
5 My name is Michael Nicholas. I supervise the
6 Infrastructure Modeling and Assessment Unit, which oversees
7 the planning for charging to make sure we can meet our
8 electrification goals in California.

9 So next slide.

10 So the first thing we need to know is where we're
11 at to see where we need to go. And I realized as I was
12 practicing the slide, the story actually starts in the
13 bottom right-hand corner.

14 So we have about 88,000 existing chargers. And
15 looking at our goal for 2025, we actually have funding
16 allocated for about 172,000, which you can see in that top
17 right chart, and that's great news. But what you also see
18 is there's a gap between 2025 and 2030 of about 900,000
19 chargers.

20 So we've made great progress. As Patty said,
21 we've met our vehicle goals early. And so that's great.
22 But we still have a long way to go.

23 So next slide.

24 So one of our largest efforts in our unit is what
25 we call the AB 2127 Report, but it's really just the

1 statewide assessment of charger needs. And it's produced
2 every two years. And we've produced one assessment already
3 in 2021. And we're working on the second assessment, which
4 will be released in fall of 2023.

5 There will be a draft report in May and a
6 workshop in June, according to the schedule. I hope that
7 doesn't change but that looks right about now. And what it
8 does is it takes the state goals such as ACC II, ACT, ACF,
9 and then puts that into our projections of what we need to
10 meet by 2030, 2035, as well as there's the interim goals,
11 2025, 2030. And this new report will go to 2035, so this
12 keeps us on track and helps guide our investments. That's
13 where that 900,000 came from before was from the first
14 assessment, so it helps us track where we are, where we're
15 going.

16 Next slide.

17 So another report we produce is, again, it's
18 called it -- it's mandated by Senate Bill 1000, but what it
19 is, is an assessment of whether or not chargers are
20 deployed disproportionately, and so we've produced two
21 reports.

22 One report looked at the drive time to the
23 nearest DC fast charger to look at rural and urban access
24 and access by disadvantaged communities. And you can see
25 on the bottom left that there are some communities that

1 were over three hours away to their nearest fast charger.
2 And as you might expect, rural access is not as good as
3 urban access. But this helps us look at it in a more
4 systematic way and we are working towards that, getting
5 better rural access. It kind of, I would say, informs that
6 goal of getting better rural access.

7 Another thing we do is look at just the number of
8 chargers per capita. And as you see, the chart on the
9 right is the public chargers per 100,000 people. And a
10 general trend shows that low-income communities have about
11 60 chargers per 100,000 people, whereas high-income have
12 over 70 chargers per 100,000 people. So there is a little
13 bit of inequity, so this helps us guide our investments.

14 The story of DC fast is a little more
15 interesting. It appears that middle-income has the best
16 access per capita. And you can see that there's 14 in that
17 middle bar, 14 fast chargers per capita.

18 So it's a bit of a mixed story but, overall, this
19 report helps us track and address those issues.

20 Next slide.

21 And this is a picture of a person. He's doing
22 routine maintenance. There's nothing wrong with the
23 charger. But, anecdotally, there is evidence that charger
24 reliability, as we're kind of moving from the rush of
25 installation, we're finding out what goes wrong with the

1 stations. And as a result, people are finding out that,
2 well, it was new technology and sometimes things break.

3 So as part of lessons learned, we're
4 incorporating new uptime requirements in our solicitations
5 so the stations, when we install them, they will be working
6 and we have a plan to do so.

7 So this is still a process, and we're
8 collaborating with industry, working closely to see what is
9 the best path forward. And part of that is developing a
10 field testing protocol. So what does it mean to be
11 reliable? And so we're defining that, again, with
12 collaboration through stakeholder process. And then that
13 helps us, again, get some uniformity in seeing where we are
14 and where we want to go or where we want to be in terms of
15 reliability.

16 And finally, there's a supporting regulation, AB
17 2061, which mandates recordkeeping and reporting for
18 reliability. And we're going to be going through a
19 regulation-making process for, as a result of that reg, to
20 look at and require reliability reporting in a systematic
21 way.

22 Next slide.

23 And finally, we, our Unit produced the ZEV
24 Infrastructure Plan. And this was the first attempt to
25 look at all the disparate attempts in the state, not just

1 CEC, but ARB, CPUC, and different state actors, what is our
2 unified plan for ZEV infrastructure in California?

3 Because, you know, we all did kind of a shotgun approach
4 and then everyone's going forward, but this is the first
5 attempt to bring it all together into one report. And
6 whereas the AB 2127, or the report I introduced earlier,
7 focused on quantitative goals, how many chargers do you
8 need? This is really focusing on that policy piece on what
9 is our strategy. So if you haven't given that a read, I
10 encourage you to do so.

11 And also, you know, the state doesn't have to do
12 everything. What is the role of the private market in this
13 to get towards our goals?

14 So that's all I have for today. And those are
15 the reports. I encourage you to go read them. Thank you
16 very much.

17 MS. VILLAREAL: Okay, sorry about that. Can
18 everyone hear me? Good morning. My name is Kristi
19 Villareal, and I'm staff with the Hydrogen Unit. Today I'm
20 providing an overview of the Hydrogen Refueling
21 Infrastructure and Hydrogen Supply Assessments that we are
22 currently working on. These include AB 8 updates on the
23 CEC's continued efforts in assessment of California's
24 growing hydrogen refueling network for light-duty fuel cell
25 electric vehicles.

1 I will also provide an overview of a new
2 statewide assessment that the CEC is currently working on
3 in collaboration with CARB and CPUC and other agencies of
4 medium- and heavy-duty and off-road fuel cell electric
5 vehicle infrastructure and renewable hydrogen production
6 pursuant to Senate Bill 643.

7 Next slide, please.

8 To provide some context, I'll start with a brief
9 overview of California's goals for hydrogen station
10 refueling network.

11 AB 8 provides the CEC with up to \$20 million
12 annually through 2023 -- again, we hope to be
13 reauthorized -- to co-fund the development of publicly-
14 available hydrogen refueling stations with a goal of having
15 100 stations by 2024. Since 2014, the CEC has used
16 competitive grant solicitations to provide these funds to
17 station developers.

18 In January 2018, Governor Brown signed Executive
19 Order B-48-18, which increased the goal to fund 200
20 stations by 2025.

21 Next slide please.

22 This slide provides current and projected fueling
23 station progress. We do have some good news. Actually,
24 yesterday a new light-duty station opened in Anaheim, so
25 just one number changes. This shifts just one number, so

1 we now have 57 stations open retail. To date, the CEC has
2 planned or allocated funding for 174 stations, including 16
3 stations that are fully funded by match share from station
4 developers. The private sector has also announced an
5 additional seven privately funded stations. If all the
6 stations become operational, there will be 181 stations
7 that are open retail. The CEC is committed to working
8 toward closing the gap to reach 200 stations.

9 Next slide, please.

10 So an important factor in creating a sustainable
11 statewide refueling network is station location. This is
12 an overview. This slide provides an overview of the level
13 of coverage provided by existing and planned stations, with
14 red to yellow shaded areas depicting a higher concentration
15 of stations, and blue showing the regions in the state with
16 lower numbers. More stations are in the more densely
17 populated areas of the state, including the Bay Area and
18 the greater Los Angeles area.

19 Some of the stations proposed for award from our
20 most recent grant funding opportunity help fill in the gaps
21 in the middle of the state, including near the 99 corridor.

22 Next slide please.

23 So the overall station development times were
24 decreasing until the COVID-19 pandemic slowed down many of
25 the development activities. The impacts of the pandemic

1 are still affecting the pace of station development, with
2 developers reporting persistently slower application
3 processing by authorities having jurisdiction, labor and
4 material shortages, and supply chain interruptions.

5 CEC staff continue to evaluate ways to reduce
6 station development time and increase developers' awareness
7 of potential hurdles they may need to overcome as they
8 progress.

9 Next slide, please.

10 So the CEC staff estimates that there are
11 approximately 12,700 fuel cell electric vehicles, or FCEVs,
12 on California's roads. According to the CEC ZEV dashboard,
13 which is on our website, cumulative sales or leases of
14 FCEVs in California totaled, as shown in this graph, 14,529
15 at the end of 2022. However, this number does not account
16 for those vehicles that are no longer in use due to
17 replacement or attrition.

18 If vehicles grow at rates projected by OEMs,
19 California will have more than enough refueling capacity in
20 the future as the remaining stations continue through their
21 development phases. And actually, I just wanted to note,
22 too, that the 181 stations would actually support about
23 236,000 vehicles, so there's a slight error there, but
24 that's still more than enough capacity.

25 Next slide, please.

1 As mentioned earlier, the CEC is working on a new
2 Hydrogen Infrastructure Assessment pursuant to Senate Bill
3 643. It's a statewide assessment of medium- and heavy-duty
4 and off-road refueling infrastructure, as well as renewable
5 energy supply production, in the context and meeting goals
6 set forth in Executive Order N-79-20, as well as compliance
7 with statewide regulations currently in place are, as
8 previously mentioned, in development, such as CARB's
9 Advanced Clean Fleets.

10 For SB 643, that assessment, a staff report will
11 be issued to the public this summer and a public workshop
12 that will be held after the review period. The CEC will
13 incorporate feedback and deliver a final report to the
14 legislature by December 31, 2023. The assessment will be
15 an ongoing effort by the CEC through 2030 with input from
16 interested parties, CARB, CPUC, and other agencies.

17 Next slide, please.

18 In addition to at least 15 light-duty hydrogen
19 refueling stations, that will also include medium-duty and
20 heavy-duty dispensing platforms, there are currently six
21 operating medium- and heavy-duty stations with an
22 additional nine stations planned, including 5 funded
23 through the 2022 EnergyIIZE Program Hydrogen Lane, which are
24 not yet reflected on this map but will be soon. These
25 stations include transit and heavy-duty truck refueling.

1 The SB 643 assessment will include scenarios of
2 potential station requirements in the context of meeting
3 the goals set forth in Executive Order N-79-20 and
4 regulations, including CARB'S Advanced Clean Trucks and
5 Innovative Clean Transit.

6 Next slide, please.

7 The 643 report will also assess clean hydrogen
8 production, as well as distribution and dispensing
9 considerations. Currently most hydrogen fuel is produced
10 through steam methane reformation of fossil fuels, which
11 produces greenhouse gases in the absence of carbon capture
12 and storage. At this time, there's no binding target for
13 clean hydrogen production in California. SB 1505 set 33.3
14 percent as the clean hydrogen requirement for publicly
15 funded stations.

16 The Clean Transportation Program has funded five
17 clean hydrogen production projects for a total of four
18 distinct locations as shown on the map. The new production
19 capacity of these projects is nearly 24,000 kilograms per
20 day using electrolysis and gasification as the
21 technologies.

22 This concludes my presentation. Thank you for
23 your time. I'm going to hand it off to my colleague,
24 Brian.

25 MR. FAUBLE: There we go. There's the camera.

1 Good morning everybody. My name is Brian Fauble. I am an
2 Energy Commission Specialist III within our Light-Duty EV
3 Infrastructure Deployment Unit. Today I'll be presenting
4 on our Light-Duty EV Charger Block Grants.

5 The goal of using the Block Grants is to provide
6 a rapid deployment for infrastructure mechanism. The Block
7 Grants are an effective way to streamline funding with a
8 simplified standardized process including applications,
9 grant management, and reporting.

10 Next slide, please.

11 The first Block Grant for Light-Duty EV Charging
12 Infrastructure was created in 2017 and it was called the
13 California Electric Vehicle Infrastructure Project, or as
14 we refer to as CALeVIP, CALeVIP. These days we tend to
15 refer to it now as CALeVIP 1.0 to distinguish it from a new
16 set of Block Grants currently underway that I'll cover in a
17 minute.

18 To date, this project has made available roughly
19 \$226 million in incentives. Currently, over 13,000 light-
20 duty EV chargers are either installed or in progress from
21 this funding. And that \$226 million also includes roughly
22 \$40 million in funding provided through regional partners
23 spreading over 36 counties.

24 Next slide, please.

25 So there are two new Block Grants that have the

1 potential to implement up to \$250 million in incentives
2 each based on CEC approval for future funding allocations.
3 Both these Block Grants will use readiness requirements as
4 a means of attracting higher quality projects that minimize
5 charger installation times. This was a large lesson
6 learned from CALeVIP 1.0 which had many good projects and
7 some that just weren't so ready to go.

8 The Center of Sustainable Energy is implementing
9 CALeVIP 2.0 which will incentivize high powered DC fast
10 chargers which are 150 kW or greater.

11 The first incentive project, the Golden State
12 Priority Project, closed its first application window on
13 March 10th of this year. This window had \$30 million
14 available for disadvantaged and low-income community sites
15 located in the eastern and central regions shown in the
16 image to the right. All the applications processing has
17 already been completed and approved applications are
18 underway for this \$30 million.

19 Next slide.

20 The second new Block Grant, Communities in
21 Charge, is implemented by CALSTART and incentivizes Level 2
22 chargers. CALeVIP 2.0 and Communities in Charge both
23 coordinate with one another through the CEC to make sure
24 that their project designs complement one another rather
25 than overlap or compete. Communities in Charge's first

1 application window is currently open now and will close on
2 Monday, May 8th of this year. The first window also has
3 \$30 million in incentives available for the Level 2
4 chargers and prioritizes community based sites, as well as
5 disadvantaged and low-income communities, through scoring
6 mechanisms. I encourage you to visit the link to
7 Communities in Charge's website to view the implementation
8 manual and other resources.

9 And with that, I will pass it on to Madison.

10 Thank you.

11 MS. JARVIS: Thanks, Brian.

12 Good morning, everyone. My name is Madison
13 Jarvis and I'm in the EV Infrastructure Innovation Unit of
14 FTD. I'll be presenting the three light-duty EV charging
15 solicitations my Unit just released.

16 Before I start, I just want to point out that
17 since these solicitations are currently open, I won't be
18 able to answer any specific questions about them. More
19 information about the solicitations and the Q&A process can
20 be found on our website. And I'll send out a link in the
21 chat to the respective solicitation pages after my
22 presentation.

23 Next slide, please.

24 So first up is the Convenient, High-Visibility,
25 Low-Cost Level 2 Charging Solicitation, also known as CHiLL

1 2, which was released in late March. This is a \$24 million
2 competitive grant solicitation focused on demonstrating
3 replicable scalable business and technology models to
4 deploy Level 2 charging stations. Projects resulting from
5 this solicitation will enhance public awareness and
6 confidence in level 2 charging access through high density,
7 high visibility installations.

8 So more specifically, we are seeking projects
9 that will install at least 50 to 300 chargers within a
10 mile-and-a-half radius, depending on the city size. So for
11 example, projects located on tribal lands have a minimum of
12 50 chargers, whereas projects located in smaller cities
13 have a minimum of 75 chargers, and projects located in
14 larger cities have a minimum of 300 chargers, again, all
15 within that mile-and-a-half radius, which is roughly seven
16 square miles.

17 The solicitation is open to all public and
18 private entities and closes on June 16th. We held a pre-
19 application workshop just a few weeks ago to address any
20 specific questions about applying to the solicitation and a
21 recording of that workshop along with the relevant CHiLL 2
22 documents is on our website, which again, I'll send out in
23 the chat in just a few moments.

24 Next slide, please.

25 Next up is the FAST solicitation, or Fast and

1 Available Charging for All, which aims to fund \$35 million
2 for DC fast charging stations for high mileage on-demand
3 transportation services, car sharing enterprises, car
4 rental agencies, and the public.

5 FAST builds off of the success of our 2022 CARB
6 solicitation in supporting the electrification of
7 transportation network company fleets, such as Lyft and
8 Uber, and expands access to all EV drivers by requiring all
9 chargers to be open to the public. FAST requires that
10 projects must demonstrate participation of or written
11 support from on-demand transportation service companies,
12 and also allows for the participation of car sharing
13 enterprises and car rental agencies.

14 FAST also includes adjusted scoring criteria to
15 incentivize projects that provide grid integration and
16 mitigation strategies.

17 FAST was released on April 5th and the deadline
18 for submissions is June 23rd. We actually just held the
19 pre-application workshop for the solicitation yesterday, so
20 the recording should be available today or tomorrow.

21 Next slide, please.

22 And the third solicitation released by the
23 Infrastructure Innovation Unit this year is called
24 Reliable, Equitable, and Accessible Charging for
25 Multifamily Housing 2.0, better known as REACH 2.0. We

1 know how important access to at-home charging is for EV
2 adoption, so we're excited that REACH 2.0 will fund \$20
3 million in projects that provide charging for multifamily
4 housing residents through the installation of Level 1 and
5 Level 2 charging solutions.

6 REACH 2.0 builds off of the success of REACH 1.0,
7 which was released in 2021, and resulted in 13 projects
8 with over \$26 million in awards.

9 The goal for REACH 2.0 is to fund projects that
10 will provide accessible Level 1 and Level 2 EV charging,
11 while also encouraging EV adoption among multifamily
12 housing residents. Thus, we are seeking projects that
13 install a minimum of 100 chargers, either at home or near
14 home, which must be within a quarter mile of a multifamily
15 housing residence. Projects are required to serve
16 disadvantaged and or low-income communities, with at least
17 50 percent of chargers installed in these communities.
18 Applicants in the solicitation are also encouraged to serve
19 residents of affordable housing.

20 The solicitation was actually just released
21 yesterday, and it's open to all public and private
22 entities, and applications will be due in early August. We
23 have a pre-application workshop scheduled for May 11th to
24 address any specific questions about the solicitation.
25 Again, if you can't attend the workshop but want more

1 information, we will post a recording of the workshop soon
2 thereafter on our webpage, along with all the relevant
3 REACH 2.0 documents, which I'll send links to momentarily.

4 Thank you so much for your time. I'll pass the
5 presentation to my colleague, Jim McKinney, for another FTD
6 solicitation.

7 MR. MCKINNEY: Yeah, good morning, everybody.
8 I'm Jim McKinney, and I'm a Manager in our Special Project
9 Support Group. And with this solicitation, we're trying
10 something new this year. We're trying to increase the
11 visibility of existing EV charging and hydrogen refueling
12 stations through the installations of physical signs. This
13 \$1 million solicitation will provide funding for the
14 installation of signs along freeways and highways and along
15 expressways and boulevards in urban areas.

16 Our goals, we have a couple of policy goals, the
17 first is to help current EV drivers find those hard-to-find
18 stations that can be tucked away in the corners of large
19 malls or shopping centers. And the *L.A. Times* had a good
20 op-ed on this over the weekend saying why somebody was that
21 ready to trade in their EV because it was so hard to find
22 some of those stations.

23 Secondly, we want to raise the visibility of
24 stations to drivers of internal combustion engine, or ICE,
25 vehicles who may not realize that charger stations can be

1 found in their neighborhoods or along their standard travel
2 routes. Seeing nearby stations might help reduce range
3 anxiety and increase the chance of switching to ZEV
4 transportation.

5 There's increasing awareness and appreciation of
6 the value of signage at many levels. So at the federal
7 level the IIJA, or Infrastructure Investment and Jobs Act,
8 which is part of the -- or which is the umbrella for the
9 NEVI Program, National Electric Vehicle Infrastructure
10 Program, is an eligible funding category. And the same
11 with the big Charging and Fueling Infrastructure NOFO that
12 my colleague Ben will talk about in a few minutes. The
13 AFDC website also, which is run by NREL, also has
14 appreciation and explanation of the value of signs. And
15 there are a couple of bills in the state legislature this
16 year that also talk about it.

17 The disability measures eligible include general
18 service signs, specific service logo signs, signage at
19 branded gas stations, and then green paint on charger
20 signs -- I'm sorry, on charger parking spaces.

21 For example, the sign on the lower right of the
22 screen here is True Zero where the first element is a logo
23 for their station at the Harris Ranch area off of I-5.
24 This is the only one in the state we're aware of. In our
25 view, it's a great opportunity to promote charging and H2

1 refueling for private companies.

2 Our grant funding opportunity was released April
3 13th, and we just held the pre-application workshop earlier
4 this week on the 25th. Applications are due June 29th, and
5 we encourage you to apply.

6 Thank you, and I'll pass this now to Jamaica.

7 MS. GENTRY: Thank you.

8 Hi, everyone. My name is Jamaica Gentry. I'm a
9 staff member of the Medium- and Heavy-Duty Zero-Emission
10 Technologies Branch. I'll be providing an overview of the
11 investments CEC is making to provide charging and refueling
12 infrastructure for MD/HD ZEVs.

13 Next slide.

14 The CTP MD/HD allocations prioritize awards to
15 infrastructure projects that will complement California Air
16 Resources Board Vehicle Awards for the purpose of meeting
17 the state's goal of supplying 1,125 drayage trucks, 1,000
18 transit buses, and 1,000 school buses with zero-emission
19 alternatives and refueling infrastructure. We are
20 frontloading our investments to provide abundant support to
21 early participants in the transition to a zero-emissions
22 future.

23 Next slide.

24 One mechanism for supporting ZEVs is the
25 EnergIIIZE Project Block Grant which makes EV charging

1 equipment incentives available for MD/HD commercial
2 vehicles and some associated infrastructure costs. The
3 project is administered by CALSTART and was originally
4 designed with four funding opportunities to serve those
5 needing EV charging infrastructure in the short term,
6 hydrogen refueling infrastructure projects in or benefiting
7 disadvantaged communities, and public charging station
8 projects.

9 EnergIIZE was then expanded last year, setting
10 aside charging infrastructure funds to pair with CARB'S
11 vehicle incentives via their HVIP Program, specifically for
12 school bus, transit, and drayage vehicles.

13 Next slide.

14 These charts show how well EnergIIZE is
15 supporting various vehicle types in transitioning to ZEVs.
16 2022 was the first year of the project. Year two launched
17 February 17th, 2023 with the EV Fast Track lane, and the
18 Hydrogen lane begins accepting applications today. The
19 other funding lanes, which includes the HVIP set-aside
20 lanes, will be opening after June.

21 CEC staff, with CARB, participated in a School
22 Bus Work Group public meeting on March 7th and received
23 feedback about the joint application process. The next
24 Work Group public meeting is scheduled for May 9th. A
25 public workshop notice will be released within the next

1 week through both CARB and CEC public meeting notice
2 processes. We encourage you to visit the energiize.org
3 website to join the mailing list and be notified of
4 upcoming workshops and webinars.

5 Next slide.

6 Another solicitation we developed is the
7 Innovative Charging Solutions for MD/HD Vehicles. This
8 work is in response to the overwhelmingly positive feedback
9 we received for our 2020 BESTFIT Innovative Charging
10 Solutions and our Blueprint Solicitations.

11 Innovative Charging Solutions is designed as a
12 two-phase competitive grant solicitation. Up to \$20
13 million in grant funds are available for phase one projects
14 that demonstrate transformative technology solutions in one
15 of two project groups, one being innovative business models
16 such as truck parking or charging hubs, charging corridors,
17 and mobility as a service, or in innovative technologies
18 like large scale ultrafast charging, interoperability,
19 battery swapping, and inductive charging.

20 In phase one, projects are eligible for up to 75
21 percent of the total project cost with a 25 percent match
22 fund required. Minimum and maximum funding amounts for
23 phase two projects will be released in the solicitation
24 manual for phase two applications. The solicitation
25 package is currently undergoing final review before gets

1 released, which is anticipated for May.

2 Next slide.

3 We have also funded demonstration projects using
4 low- and zero-emission trucks in delivery, freight, and
5 port settings. This year, CEC will be partnering with CARB
6 to support advanced technology demonstration and pilot
7 projects. Specifically, CEC will provide emerging
8 opportunities for infrastructure to support vehicle
9 demonstrations in zero-emission aviation, locomotive, and
10 marine sectors, as well as funding for the construction,
11 agriculture, and off-road sectors. Eligible project
12 categories will include green zones, emission reductions,
13 technologies, and vehicles and equipment.

14 A Work Group meeting was held in February, with a
15 second Work Group to discuss additional questions scheduled
16 for May. A solicitation is being drafted for release in
17 mid-May with an expected deadline for applications in
18 August and a NOPA in September.

19 Next slide.

20 CEC staff hosted a workshop in March 2023 to
21 gather feedback on the solicitation concept for a corridor-
22 based ZEV infrastructure. This solicitation concept is
23 meant to annually recur and will complement other state
24 efforts, such as the California Transportation Commission's
25 Clean Freight Corridor Efficiency Assessment, and potential

1 federal funding from the Charging and Fueling
2 Infrastructure Discretionary Grant Program, which will be
3 discussed a little later. Staff are currently reviewing
4 public comments and expect to release the solicitation
5 later this year.

6 Thank you for your attention. I now invite
7 Jeffrey Lu to present.

8 MR. LU: Thanks, and good morning, everybody. My
9 name is Jeffrey Lu. I work in the Vehicle Grid Integration
10 Unit here at the CEC. I'm going to briefly walk you
11 through some background on vehicle grid integration and
12 also some related CEC efforts.

13 Next slide, please.

14 Vehicle grid integration, or what we shorten to
15 as VGI, refers to a broad range of strategies and also
16 products that encourage grid-friendly vehicle charging
17 while also making sure that the driver's needs are met. So
18 one example of VGI is smart one-way charging, which could
19 help shift your charging time to take advantage of the
20 lowest electricity rates while still making sure you have
21 enough range by your next trip. Another example of VGI is
22 bidirectional charging. This could enable you to draw
23 power from your vehicle to power a home or building during
24 an outage or during peak hours when electricity is
25 expensive.

1 Overall, VGI provides benefits to both drivers
2 and the grid. VGI can help customers save on charging
3 costs, for example, by automatically taking advantage of
4 those lowest electricity rates. VGI can also support
5 customer confidence by ensuring that their vehicles are
6 charged and ready when they need it, enabling some vehicles
7 to even serve as sources of backup power. And of course,
8 VGI supports grid reliability by making sure that vehicles
9 and chargers consider whether to respond to grid signals,
10 so rates, emergency events, and so forth, as part of the
11 charging process.

12 Next slide.

13 There are a handful of CEC efforts I want to
14 highlight today, which support the scale up of VGI.

15 First, CEC includes minimum technical
16 requirements for chargers funded through our Block Grant
17 projects, so this is CALeVIP, EnergiIZE, and Communities in
18 Charge. These minimum capabilities will help ensure that
19 all the chargers funded through these projects can
20 communicate with the grid and vehicles to coordinate
21 charging with grid signals, if it's appropriate to do so.
22 In other words, these are effectively VGI capability
23 requirements.

24 Second, CEC has a number of recent funding
25 solicitations that support VGI. The REDWDS solicitation

1 was released in March and it helps provide funding for the
2 development and installation of charging products to help
3 customers save money by intelligently responding to grid
4 signals. A wide range of charging products could fall
5 under this solicitation, so maybe smart chargers,
6 bidirectional chargers, vehicle software, and so on.
7 REDWDS supports up to two project phases. \$9 million is
8 available for phase one, and up to \$300 million may be
9 available for phase two.

10 Another solicitation we recently launched will
11 provide funding for bidirectional chargers to serve the
12 existing electric school buses throughout California. This
13 is also a two-phase solicitation, and there's \$15 million
14 available for phase one, and phase two funding is to be
15 determined at a later date.

16 Overall, CEC will continue exploring other
17 avenues to support VGI, including potentially other
18 solicitations in the future. That's all I have for you
19 right now. Thanks for your time, and I'm going to hand it
20 off to Kristi to talk about hydrogen infrastructure.

21 MS. VILLAREAL: Thanks, Jeffrey.

22 Hi again. Kristi Villareal, staff with the
23 Hydrogen Unit. And earlier I provided an overview of the
24 Hydrogen Assessments that we're working on. And this brief
25 presentation will include some recent investments in

1 hydrogen refueling.

2 Next slide, please.

3 The most recent grant funding solicitation to
4 help grow hydrogen refueling infrastructure for both light-
5 duty and light-duty, combined with medium- and heavy-duty
6 fueling positions was GFO-22-607, which was released in
7 October of 2022 with up to \$27 million available.

8 The Notice of Proposed Awards, or NOPA, was
9 issued recently on April 12th. The projects include four
10 new light-duty stations into multiuse stations. These
11 stations will add 16 new light-duty dispensing nozzles and
12 multiple heavy-duty dispensing nozzles, the exact number of
13 which to be determined.

14 The total proposed awards is slightly under \$10
15 million. And the agreements are anticipated to be
16 presented at the July 2023 business meeting. The CEC is
17 reviewing possible reasons that the solicitation was
18 undersubscribed in order to inform future decisions.

19 Next slide, please.

20 Medium- and heavy-duty and off-road vehicles and
21 off-road mobile sources together are responsible for more
22 than 65 percent of NOx emissions and more than 10 percent
23 of greenhouse gas emissions statewide.

24 In partnership with the CEC's Energy Research and
25 Development Division, \$8 million in CTP funds were invested

1 in a grant funding opportunity for Innovative Hydrogen
2 Refueling solutions for Heavy Transport. Hydrogen fuel
3 cell technology can help decarbonize heavy off-road
4 transport applications that can be challenging to electrify
5 directly due to high energy requirements in continuous or
6 multi-shift operations that require fast refueling times.
7 By advancing innovative refueling solutions, multiple
8 benefits, as listed on this slide, may be achievable. The
9 GFO was released in October of 2022.

10 Next slide, please.

11 So this slide lists the eligible vehicle types in
12 the three categories or three groups that the solicitation
13 was split into. The level of interest for this
14 solicitation is demonstrated by the 35 abstracts received
15 in response to the solicitation. Of those, 22 abstracts
16 were advanced for phase two full application submission.
17 The NOPA is anticipated to be released any day now, very
18 soon.

19 This concludes my presentation. Thanks for your
20 attention, and I'll hand it off to my colleague, Jonathan.

21 MR. BOBADILLA: Thank you, Kristi. Good morning,
22 everyone. My name is Jonathan Bobadilla, staff in the
23 Manufacturing and Production Unit, and I will be presenting
24 on our activities related to ZEV-related manufacturing and
25 low-carbon fuel production.

1 Next slide, please.

2 Starting with our ZEV-related manufacturing
3 activities, thanks to the ambitious goals of the State of
4 California to electrify and decarbonize transportation, the
5 CEC was entrusted by the legislature with nearly \$250
6 million to support in-state manufacturing projects through
7 our Clean Transportation Program.

8 The goals of this funding are to attract new and
9 expand existing zero-emission vehicle or ZEV-related
10 manufacturing in California, increase number and quality of
11 manufacturing jobs in California, particularly in the ZEV
12 area, bring positive economic impacts to the state by
13 attracting private investments in manufacturing capacity,
14 and contribute to California's goals of zero-emission
15 transportation.

16 The first solicitation to be developed was GFO-
17 21-605 titled Zero-Emission Transportation Manufacturing,
18 or ZETM. That was announced in March of 2022. This was a
19 competitive grant funding opportunity to fund projects that
20 manufacture ZEVs, ZEV components, and ZEV infrastructure in
21 California. On August 24, 2022, a Notice of Proposed Award
22 was released. Two NOPA revisions were released in January
23 and March of 2023.

24 The second solicitation was GFO-21-606 titled
25 Zero-Emission Vehicle Battery Manufacturing Block Grant.

1 This solicitation sought a not-for-profit entity to
2 administer funds towards ZEV battery manufacturing projects
3 throughout California. A NOPA was released December 29,
4 2022.

5 Next slide.

6 GFO-21-605 ZETM was oversubscribed and very
7 competitive. A breakdown of funding by manufactured
8 product types are shown in the table. Twenty-six
9 applications were received for funding consideration.
10 Thirteen applications received passing scores and were
11 recommended for funding for \$198 million worth of grants.
12 That makes it \$479 million worth of projects when you
13 include match.

14 A funding breakdown by manufactured products
15 shows \$112 million towards projects that manufacture
16 complete zero-emission vehicles, \$63 million towards ZEV
17 battery manufacturing, \$15 million towards EV charging
18 infrastructure manufacturing, and \$9 million towards ZEV
19 infrastructure component manufacturing.

20 Next slide.

21 Shown here is a map of California with the
22 awardee name and project locations of the proposed
23 projects. The 13 projects recommended for funding are
24 spread over 19 project sites, 14 cities, and 8 counties
25 throughout California. Awardees and their site locations

1 can be subject to change and must be formally approved at a
2 CEC business meeting. As of March 2023 CEC business
3 meeting, seven projects' awards have been approved.

4 Next slide.

5 The projects recommended for funding will promote
6 a diversity of manufacturing projects that manufacture
7 products such as electric transit buses, electric vehicle
8 supply equipment, hydrogen refueling station sub-
9 components, ZEV battery manufacturing, to name a few
10 examples. We are very excited to work with our new project
11 partners as they develop new ZEV products and expand
12 manufacturing operations while creating high quality
13 manufacturing jobs for Californians.

14 Next slide.

15 GFO-21-606, titled Zero-emission Vehicle Battery
16 Manufacturing Block Grant, was a grant funding opportunity
17 which sought a not-for-profit entity to administer funds
18 towards ZEV battery manufacturing projects throughout
19 California. A NOPA was released December 29th, 2022, which
20 identified CALSTART as the proposed Block Grant implementer
21 recommended for administering \$25 million in funding.

22 A grant agreement with CALSTART was approved at
23 the April 2023 CEC business meeting. In coordination with
24 the CEC, CALSTART is now developing a funding opportunity
25 for ZEV battery sub-grants. After administrative costs,

1 roughly \$22.5 million will be available as sub-grants for
2 projects that support in-state ZEV battery manufacturing.
3 Project applications to CALSTART are expected to begin in
4 the fourth quarter of 2023 and seek CEC business meeting
5 approvals around the first half of 2024.

6 Next slide.

7 Now I will be presenting on our low-carbon fuel
8 activities. There is a \$9 million competitive grant
9 solicitation currently open to support two funding
10 categories, demonstration, and commercial-scale ultra-low-
11 carbon fuel production. Projects resulting from this
12 solicitation will help combat the feedstock barriers by
13 utilizing forest biomass that helps combat the increasing
14 challenges from wildfires.

15 This solicitation is open to all public and
16 private entities and the applications are due today, April
17 27th. We anticipate posting the Notice of Proposed Award
18 in June of 2023.

19 This concludes my update for ZEV-related
20 manufacturing and low-carbon fuel production. I will now
21 pass it on to Larry Rillera. Thank you.

22 MR. RILLERA: Thank you, Jonathan. I appreciate
23 it. Thank you, Tiana (phonetic).

24 My name is Larry Rillera. I'm staff with the
25 Fuels and Transportation Division. And I assist and help

1 lead with our Workforce Training and Development Portfolio.

2 Next slide, please.

3 Our Workforce Training and Development Program
4 has been a hallmark of the program since the inception of
5 the program. Over 32,000 trainees, as Patrick had
6 mentioned in his presentation, and over \$45 million, the
7 program is alive and kicking and moving the industry
8 forward.

9 Some of the goals that have guided our
10 investments are noted here in terms of and include career
11 pathway development, the focus on job quality and quantity,
12 partnerships, a prioritization of communities, and the
13 support of labor and workforce standards and requirements,
14 and embracing enterprise, small business, and certified
15 enterprises as well.

16 Next slide.

17 In terms of the results, some of these
18 investments continue to yield significant returns, not just
19 in terms of the additional capacity of our trainers and our
20 faculty members throughout the state, but also the number
21 of enrollees and participants at our community colleges,
22 our high schools, and certainly in the commercial sector as
23 well. These include not just community colleges, but our
24 high school programs, the focus on specific markets and
25 technologies such as our Electric School Bus Program. And

1 I would also draw your attention to a program that was
2 recently approved and will be launching focus exclusively
3 on medium- and heavy ZEV technologies in six community
4 colleges throughout the state.

5 Next slide.

6 In February of this year, staff rolled out --
7 excuse me, conducted a workshop to solicit ideas, feedback,
8 and comments with respect to several funding concepts and
9 proposed strategies for the remaining resources funding for
10 our program.

11 Some of the concepts included support and
12 development of funding for our Electric vehicle
13 Infrastructure Training Program. We have several
14 activities we will be supporting here, including a
15 partnership with the employment training panel.

16 We had a discussion on our National Electric
17 Vehicle Infrastructure Training as part of that funding
18 solicitation. We are also going to be expanding our
19 Electric School Bus Training Project for more buses that
20 are deployed and the schools that will be receiving them.

21 And then our fourth concept is this idea of
22 supporting the workforce with respect to ensuring
23 reliability and charger operations.

24 And then lastly, we put a concept out there that
25 would solicit any ideas, if you will, where we could invest

1 in the workforce training and the development of the
2 workforce with respect to ZEV infrastructure.

3 Next slide.

4 Thank you, and I'll pass it to my colleague, Ben
5 De Alba.

6 MR. DE ALBA: Great. Thanks, Larry. Ben De
7 Alba, staff with the Fuels and Transportation Division, and
8 I'm going to highlight some federal funding activity going
9 on and related to the Energy Commission.

10 Next slide, please.

11 So the Infrastructure Investment and Jobs Act of
12 2021 created the two important electric vehicle
13 infrastructure programs, the first of which is the National
14 Electric Vehicle Infrastructure Formula Program, otherwise
15 known as the NEVI Formula Program, and that has \$5 billion
16 for states to allocate -- allocated to states for high-
17 power EV charging stations. California is implementing its
18 program now. That will be on the next slide.

19 The other program created under the IIJA is a
20 discretionary grant program called the Charging and Fueling
21 Infrastructure Discretionary Grant Program. There's \$2.5
22 billion for that program. And that program is divided into
23 two different categories, one of which is the Alternative
24 Fuel Corridors Grant Program, and the other is Community
25 Charging and Fueling Grants. And the United States

1 Department of Transportation recently released its Notice
2 of Funding Opportunity for the discretionary grant program.
3 They made available \$700 million for the program, and they
4 divided that equally between the two categories, the
5 Alternative Fuel Grants and the Community Charging and
6 Fueling Grants. I'll get a little bit more into that in
7 the next slide.

8 Okay, so the formula program is being
9 implemented, actively being implemented now, by the Energy
10 Commission in close partnership with Caltrans. California
11 is going to receive \$384 million over the next five years
12 for this program. And we expect that we'll support
13 charging stations at private sites along 6,600 miles of
14 interstates, U.S. routes, and state routes in California.

15 The minimum requirements for the program say that
16 we must locate fast chargers every 50 miles or less, and no
17 more than one mile from our designated alternative fuel
18 corridors in California. And then we have a state goal of
19 making sure that 50 percent of those chargers must benefit
20 disadvantaged or low-income communities, and we must meet
21 the federal requirement that 40 percent of those chargers
22 are benefiting Justice40 communities.

23 Next slide, please.

24 And the Energy Commission is also partnering with
25 Caltrans right now to put together a project proposal and

1 an application for the CFI Program under the alternative
2 fuel corridor category. California, the Commission and
3 Caltrans, are partnering with Oregon and Washington to
4 develop a border-to-border, that's Canada to Mexico, zero-
5 emission truck fueling corridor along I-5, with emphasis in
6 the 710 and Inland Empire area, to deploy charging stations
7 and hydrogen stations to support goods movement activity
8 being moved around on zero-emission trucks. We are working
9 digitally and hard to get that application ready for the
10 deadline of May 30th, next month.

11 Thank you very much. I'll pass it back to Larry.

12 MR. RILLERA: Great. Thank you, Ben. Appreciate
13 that.

14 My name is Larry, staff with the Fuels and
15 Transportation Division, and I'll cover our last initiative
16 for the presentation before we open it up. This
17 presentation will focus on our community benefits
18 framework, and then I'll address a little bit of our tribal
19 outreach. Thank you.

20 So what is the community benefits framework?
21 It's an initiative to ensure that our clean transportation
22 projects are not only located in disadvantaged and low-
23 income communities, but that these communities reap the
24 direct benefits, also reap the benefits from these
25 investments, from partnerships, and from other areas of our

1 relations.

2 How are we going to go about this? We're going
3 to define, measure, and improve these benefits provided by
4 partnerships and investments. We're also going to track
5 our investments and the results. And then we're going to
6 institutionalize this and incorporate this into our
7 fundings and offerings.

8 Some of the initial questions that were asked at
9 our November 2020 kickoff meeting included: What benefits
10 are valuable to communities? How can the CEC define
11 community? How should the CEC define benefits? And then
12 how can the CEC better track and attribute these benefits?

13 Next slide.

14 After our launch of the initiative in November,
15 we embarked on a deliberative and intentionally planned and
16 orchestrated engagement process with communities throughout
17 California. We were leveraging our ideal communities
18 partnership with the Foundation for Community Colleges,
19 which provided our community engagement with neighborhoods
20 in one-on-ones and through meetings with CEC staff.

21 At our March Workshop on Community Benefits, we
22 had testimony from two communities, Uplift San Bernardino
23 from down south, and META, an organization located in East
24 San Jose. What you see here are the benefits as expressed
25 by the community members for clean mobility and clean

1 transportation. It is this feedback that is critical to
2 ensuring that their articulations are incorporated into the
3 framework and are revisited so that we understand where the
4 communities and their benefits and their needs can be
5 weaved into our funding solicitations.

6 Next slide.

7 So the community benefits framework proposes five
8 steps. We're going to identify the community affected by
9 program projects. We're going to look to address community
10 needs. We're going to define the project benefits with the
11 communities. We're also going to record the benefit
12 metrics that communities are interested in receiving. And
13 then we're also going to track this over time, again, as I
14 had mentioned, to identify future benefits and to weave
15 this into our funding opportunities. We are currently
16 seeking input with regards to this framework.

17 Next slide.

18 Lastly, I want to touch upon our tribal
19 communities outreach. On March 2nd, the CEC approved a
20 resolution recognizing and committing the agency to support
21 California tribal energy sovereignty. The resolution was
22 approved during a first of its kind en banc meeting between
23 the tribal leaders and Commissioners from the CEC and the
24 PUC. The CEC's commitment extends to the Clean
25 Transportation Program and builds on the program's existing

1 efforts to ensure that program investments benefit tribal
2 communities and includes coordination across all of the
3 CEC.

4 I would note that staff is actively engaged with
5 tribes when promoting funding opportunities. Current
6 opportunities include our CALeVIP 1 and 2, Communities in
7 Charge, and our Medium- and Heavy-duty EnergyIIIZE Program.
8 Recent opportunities also include our IDEAL ZEV Workforce
9 Pilot and our reliable rural EV charging infrastructure
10 funding opportunities.

11 Lastly, I would draw your attention to a May 4th
12 event upcoming where the CEC will host a tribal listening
13 session on accelerating EV adoption, which is open to all
14 California tribes. With plans for a dedicated tribal-
15 focused funding opportunity for EV infrastructure, the CEC
16 will collaborate with tribes to support the deployment of
17 charging infrastructure. Funding for this initiative is
18 expected to be released later this year.

19 Thank you. Appreciate your time and now turn it
20 over to Patrick.

21 MR. BRECHT: Great. We're actually six minutes
22 ahead of schedule, so that's very good.

23 This is the opportunity that we ask if you'd like
24 to ask staff members any questions you have on the previous
25 presentations. I guess we just knocked out -- oh, there we

1 go. Very good.

2 Kevin?

3 COMMITTEE MEMBER HAMILTON: Hi. Good morning.
4 Thank you for that remarkable presentation. I think you
5 may have hit a record there, I don't know. I don't think I
6 could write fast enough.

7 But I did want to fall back to the light-duty
8 vehicle charging solicitations and the focus of so much
9 money on CHiLL, I believe it's called, on Level 2 chargers.
10 I think, you know, as we're going through this and learning
11 over the years, we're really discovering that while Level 2
12 chargers were a great way to bait the hook initially, we
13 need better technology to -- just going to use a fishing,
14 you know, analogy here to catch this fish, which is the
15 public's eye on EVs and acceptance of that. So they were
16 great. They were fairly cheap. They were easily installed
17 with the existing infrastructure in most places. People
18 got really tired of going shopping and plugging their car
19 in and coming back to it with, you know, less than 20 miles
20 sometimes of additional battery.

21 So it would seem to me, other than for
22 multifamily where it's being installed on the facility,
23 because make no mistake, in many parts of our major cities
24 in California, including the major cities here in the
25 Valley, Fresno, with a million residents in Bakersfield

1 approaching that, there are places where you're not going
2 to go leave your car for four hours or six hours while it
3 charges a quarter mile away from where you live. So, you
4 know, it just seems, you know, the day has come and gone,
5 other than, again, as I mentioned, in certain specific
6 situations where the existing infrastructure, housing
7 infrastructure is so complex that the only hope of getting
8 anything reasonably close to somebody is a Level 2 charger,
9 because the grid infrastructure there is very difficult to
10 upgrade, again, due to the concentration of the housing.

11 I just wondered what the thinking was there. Is
12 this a hangover or is this something that we're going to
13 continue?

14 MS. JARVIS: I think I can address that. Thank
15 you so much for your question, Kevin. And while I can't
16 necessarily address too much about it just because the
17 solicitation is currently open, I think I can give you some
18 background on just the thinking here.

19 And so, for one, it's very much kind of a pilot
20 project in which, again, we're really testing the Level 2
21 business models. We're trying to see what it's like if
22 finding a parking spot -- or finding a charger downtown is
23 akin to finding a parking spot in a downtown area where we
24 want to make sure that someone driving through is easily
25 able to find one if they need one.

1 And to your point of, yeah, multifamily housing
2 is going to be a big component of the solicitation in that
3 we really do want to maximize charging accessibility to
4 multifamily housing. While we have another solicitation
5 for that as I talked about, that will be a component of
6 this CHiLL 2 solicitation.

7 And then additionally, I think we really wanted
8 to flood an area with Level 2s, again, to test that
9 business model. We haven't really seen a whole lot of that
10 where there are, you know, again, in a larger city,
11 installations of 300 chargers or more. That's not very
12 common. So, again, we're looking to see what that does for
13 users.

14 The last point is we are requiring these to be in
15 larger cities, so 50,000 is the smallest population city
16 that we're going to allow these installations to occur.
17 And that's because we're really looking for high-use areas,
18 so a good mix of commercial, residential, business uses
19 where people are parking for, you know, eight hours,
20 whether that's to go to work or spend the day in the city,
21 things like that. So that's kind of the thinking there.

22 I'm not sure if I answered your question or just
23 kind of rambled, but if anyone else has anything to add to
24 that?

25 Mike, I see you're unmuted. Maybe you've got

1 some to add.

2 MR. NICHOLAS: Yeah. You know, I guess, yeah,
3 you point out a pretty good point. You know, Level 2 DC
4 fast is a Level 2 in the past or, you know, going towards
5 DC fast, so why would somebody need a Level 2 charger if
6 they've got a charger at home? And so the question [sic]
7 is probably a lot of people wouldn't need DC fast to extend
8 where they're going. Short stops don't make that much
9 sense for Level 2, but still the use cases for Level 2 are
10 plug-in hybrid electric vehicles. They typically have
11 smaller, you know, charging times, smaller batteries. And
12 then those people without home charging, we see those
13 becoming a larger part of the market. And so matching the
14 place where people naturally park with long duration
15 charging, such as workplace.

16 And, you know, the AB 2127 report reflects some
17 of these changes as we look at what was the case, you know,
18 two years ago? How is the market evolving? And we've
19 already met our DC fast charging goal of 10,000 fast
20 chargers two years ahead of time, so what does that say?
21 It says the market is reflecting that preference. And so
22 in our modeling, we certainly take note of these things,
23 and we try to make Level 2 reflect those preferences.

24 And so, yes, there's still a role for Level 2,
25 but focusing on those long duration workplace situations is

1 probably more likely and more beneficial to get lower cost
2 electricity into a charger. So if you're going to a
3 workplace, you don't have a home charger, for example, you
4 wouldn't want a fast charger because you'd have to go and,
5 you know, unplug your car and do a bunch of stuff. So
6 where people naturally park, it makes sense for Level 2 in
7 that case.

8 Another point is as we go forward and we're
9 trying to shift energy from, you know, solar resources,
10 intermittent resources, we might actually want people
11 plugged in all the time. And you wouldn't want that to be
12 on a 350 kilowatt fast charger.

13 And so, yeah, Level 2, we're still looking at it.
14 And that's why we update the report every two years, but
15 it's not dead yet. The rumors of its demise are greatly
16 over exaggerated, but we are keeping track of its role for
17 the future.

18 COMMITTEE MEMBER HAMILTON: Your comment about
19 workplaces is well taken and well understood. And now that
20 I've seen numerous examples on it and your obvious use of
21 50,000 as a threshold for urban cities matches, certainly,
22 the census use of that definition of urban versus rural at
23 the 50,000 mark, so it's a good number to choose. It makes
24 sense. We all use it in my world.

25 But what we're seeing is where these chargers are

1 in the workplace parking lot. And it's a great thing to
2 see, is there's so many staff who are now owning, and I see
3 it in my own parking lot where we've got two chargers, and
4 whoever gets there first gets them; right? So are we going
5 to flood the whole parking lot with chargers, because
6 that's pretty much what we would have to do, or are we
7 going to throw a couple of Level 3s in there and people
8 can -- they're only going to need them for the most part?
9 Most people aren't letting their batteries run down to
10 zero, so they're at half battery, quarter battery.

11 So for them, you know, put it in there, we tell
12 them to take a break, is what we would do, and move your
13 car and let the next person get in and who really needs it
14 because the turnaround there is very quick.

15 But I get your point. You know, we're still
16 there. There's still a need. The investment seems a
17 little high for it. And I would argue, again, that the
18 ISPs -- the EVISPs are probably, you know, really moving
19 forward with their own infrastructure on this all over the
20 place. So, you know, how much does the state really need
21 to kick into this?

22 And then one last comment. I really admire this
23 Canada to Mexico project on the I-5, by the way. That's
24 really out of the box thinking, collaborating with three
25 states, this is what we all should be thinking. And this

1 is what people worry about, and especially in the freight
2 business. Kudos on that one.

3 Thank you.

4 MR. NICHOLAS: Thank you, Kevin.

5 Jerome?

6 COMMITTEE MEMBER QIRIAZI: Thank you. Jerome
7 Qiriazzi with Humboldt Transit Authority.

8 Congratulations to staff on all of your progress.
9 It's fantastic to see everything there. And, also,
10 congratulations on consistency with past Investment Plans
11 and really listening to feedback is really evident.

12 I don't have much other than a thought. Is your
13 funding eligible to or has your staff considered funding
14 basically, marketing, electrification marketing campaigns,
15 you know, hydrogen, electric, biofuels, et cetera, just in
16 general around just trying to drum up public excitement and
17 interest and helping, also, to combat, you know, the
18 politicizing of these issues, for example, the gas
19 appliance, you know, all that drama? Around the Bay Area,
20 et cetera, I see similar sort of narratives and challenges
21 with public perception around electrification of
22 transportation. I'm curious if that's been considered by
23 staff.

24 Thank you.

25 COMMISSIONER MONAHAN: So I'm going to take that

1 one.

2 So, Jerome, it's a really good comment about
3 public awareness. And there is a campaign called the
4 Veloz, which also runs this Electric For All. And we're
5 working, so we're investing in that forum. And that I
6 think as a state, you know, the Air Resources Board, we're
7 all using Veloz as that mouthpiece for why we need to go
8 zero-emission, what the incentives are really trying to be
9 a consumer facing education tool.

10 MR. BRECHT: Great. Jerome, does that answer
11 your question?

12 COMMITTEE MEMBER QIRIAZI: It does. Yeah. Thank
13 you very much.

14 MR. BRECHT: Thank you.
15 Robert, your question.

16 COMMITTEE MEMBER MEYER: Yeah, good morning.
17 It's actually just a comment related to the tribal
18 workforce efforts.

19 Thank you, Larry, for the presentation. We see,
20 at ETP as a workforce funder, a great similarity in the
21 opportunity to build upon models dealing with not only
22 construction, pre-apprenticeship construction, but
23 sustainable building in terms of housing in rural
24 communities, and I think, as well, the broadband sort of
25 build out that is happening there.

1 So we'd definitely urge looking at evaluation and
2 connection to those programs and those models that have
3 shown some success of building it sort of locally,
4 refraining from the mandate of having it built in
5 Sacramento and deployed. But I think that there's a great
6 opportunity to significantly advance the policy work in a
7 way that makes it easy to adopt building around some of
8 these efforts.

9 So great to see it. Thank you for the
10 information again.

11 Thank you, Larry.

12 MR. BRECHT: Thank you, Robert.

13 Samantha?

14 COMMITTEE MEMBER HOUSTON: Hi. Thanks so much.
15 These are really great presentations and I was doing my
16 best to take it all in. I have two questions.

17 I don't think I heard any mention of the federal
18 vehicle rules that have just been proposed in sort of the
19 discussion of policies and so forth that are helping inform
20 some of the investments. I know, you know, California is
21 always ahead of that for the most part, but I could see
22 those standards, you know, having more sort of interstate
23 travel in California of more EVs, and particularly on the
24 commercial side, you know, not just having a need for
25 corridors that run the full length of the West Coast, but

1 really looking for some progress going west to east as
2 well.

3 So I'm just curious to see if that is sort of on
4 the radar and if that's influencing any of the thinking as
5 well, while recognizing that is quite a new development?

6 So that's my first question. I'm happy to pause
7 there and throw out both questions at once.

8 MR. BRECHT: Go ahead, Samantha. What would be
9 your second question?

10 COMMITTEE MEMBER HOUSTON: Sure. My second
11 question is just really, first of all, admiring all of the
12 effort around manufacturing and workforce development and
13 how important that is, and thinking about how, you know,
14 we've been so focused on getting EVs out there that it's
15 only been recently that I myself have been thinking about
16 what happens when they're being retired.

17 And so I'm wondering if there's some thought
18 around the potential for those categories to also include
19 things on the recycling and reuse, particularly looking at
20 the batteries and how we can sort of move towards a more
21 circular economy of that for those materials? I see some
22 synergy there with the manufacturing side of things, as
23 well, but just want to sort of raise that end of life or
24 even better, like circular life, if that could be part of
25 the sort of manufacturing and workforce development side of

1 things, or other elements of the program that I haven't
2 even thought of?

3 COMMISSIONER MONAHAN: You know, can I take a
4 stab at responding to this one? And the team should feel
5 free to embellish or correct if I get anything wrong.

6 I think on the federal side, it's true. I mean,
7 it's proposed. We'll see what gets to the finish line.
8 And I think the question is, which we haven't -- and we
9 need CARB really to weigh in on this, about how those
10 standards will inform what happens in California given, as
11 you noted, Sam, that we're already kind of ahead. So I
12 think there needs to be cross-agency analysis really on
13 what the new standards when they get to the finish line
14 mean for California.

15 I think you're right in terms of the opportunity
16 for other, you know, visitors from other states to come and
17 bring their vehicles. So hopefully, NEVI, and hopefully
18 we'll get more funds for me doing heavy-duty on this front.
19 I think it's a really good point.

20 I would say on the end of life, you know, we have
21 been funding a fair amount of work through our EPIC Program
22 through research and development. In fact, I was just
23 visiting last week Smartville, which is using old Nissan
24 Leaf and Tesla batteries to test secondary backup for
25 building. There's one company, B2U, that's actually the

1 first one I know of that fed into the grid last year to
2 provide support when we needed it during the heat wave.

3 And, you know, so there is this opportunity, I
4 think, on the recycling side. And I think actually the
5 fact that the new federal IRA counts as domestic content,
6 the recycling of these precious minerals, that's also a
7 driver.

8 So I think it's a great point. It's something
9 that we're working collaboratively with CalEPA, who has
10 been more the lead on this side, but we're definitely
11 funding this in the R&D space. Haven't yet funded it
12 through the monies that we handle because they are more
13 deployment focused versus this seems a little early, but
14 welcome feedback on that.

15 MR. BRECHT: I think Jonathan, did you have
16 something to add to this?

17 MR. BOBADILLA: Yeah.

18 Samantha, thank you for your question and
19 attention to the manufacturing side. So in the last two
20 manufacturing solicitations, the GFO-21-605, and also this
21 will apply to 606, we were explicit in saying that
22 manufacturing of new battery products with recycled
23 material was an eligible product category. Recycling by
24 itself, because the legislation was clear that it was for
25 products, the recycling of the standalone project was not

1 eligible for this funding round at least.

2 So what we're going to encourage to our project
3 partners is, you know, if there are products that are using
4 recycled material, that's a net positive in our
5 perspective. We want to encourage battery recycling where
6 possible and being able to have that circular economy where
7 you're recycling batteries and then the materials can be
8 reused to make new batteries and other components.

9 So, yeah, your message is taken. And we're
10 hoping, too, that CALSTART can find some innovative
11 projects that are promoting that circular economy for
12 battery recycling to new products.

13 Thank you.

14 MR. BRECHT: Thank you, Jonathan.

15 Are there any more questions? We're actually
16 right on schedule. If not, we can go right into the
17 Investment Plan itself, which is going to be just a short
18 presentation and then we can have more questions on that.
19 And then after that, we'll open up to the public.

20 I'm sorry, Jerome, do you have a question?

21 COMMITTEE MEMBER QIRIAZI: I'm just wondering if
22 we could take a couple minute break? Is that something
23 that would be possible?

24 COMMISSIONER MONAHAN: You know, Jerome, I would
25 say you should feel free to step away. Sorry. I know

1 three hours is really hard and we're sorry about that but
2 we're trying to minimize like time on the Zoom screen. So
3 just feel free. Everybody should feel free to step away,
4 do some stretches, go to the bathroom, get some tea, do
5 what you need to do to be on the Zoom screen. And sorry
6 that it is packed.

7 MR. BRECHT: Yes, but we're almost there, we're
8 almost. Just hanging in there, folks.

9 Okay, well, with that, then let's go ahead and
10 move on so we can move on. Okay.

11 Next slide, please. Okay.

12 This graphic provides a visual of total funding,
13 both the Clean Transportation Program and the General
14 Funds, which equal \$1.7 billion for Fiscal Year '23-24
15 through '25-26.

16 And I should add, on January 10th, '23, Governor
17 Newsom released a proposed budget for fiscal year '23-24.
18 The proposed budget would preserve 88 percent of the CEC's
19 funding for zero-emission transportation allocation from
20 the General Fund under the Budget Acts of '21 and '22. The
21 CEC is closely monitoring the budget development process.
22 And staff will incorporate final budget information in a
23 future version of the '23-24 Investment Plan Update.

24 Next slide.

25 Of the over \$600 million allocated for light-duty

1 charging infrastructure, the Clean Transportation Program's
2 original funds will provide \$13.8 million in the remaining
3 half fiscal year. Combined with previous investments from
4 the program and other public and private investments, the
5 funding from this Investment Plan should be sufficient to
6 meet the state's goal of 250,000 chargers. And as
7 mentioned earlier, CEC expects to reach 240,000 Level 2
8 chargers by 2026. And the CEC anticipates reaching the
9 10,000 DC fast charger this year.

10 The General Fund provides \$340 million over the
11 next three fiscal years to build that abroad network of
12 grid-integrated high-powered fast chargers to support
13 travel across the state and supplement federal NEVI funding
14 for corridor fast charging. The General Fund also provides
15 \$280 million for equitable at-home charging for multifamily
16 residents and priority community single-family homes.

17 Next slide.

18 The Investment Plan allocates \$953.8 million for
19 medium- and heavy-duty ZEV infrastructure. The Budget Acts
20 of '21 and '22 require the CEC to fund ZEV infrastructure
21 for specific categories, so \$234 million for electric and
22 hydrogen drayage trucks, \$170 million for electric and
23 hydrogen transit buses, \$15 million for school bus ZEV
24 infrastructure, \$371 million for ZEV truck bus and off-road
25 equipment, and \$150 million for ports.

1 And CEC is allocating an additional \$13.8 million
2 of Clean Transportation Program funding for medium- and
3 heavy-duty ZEV infrastructure. These funds will support
4 the deployment of thousands of ZEV drayage trucks, school
5 buses, transit buses, and other medium- and heavy-duty
6 vehicles within the state. In addition to grant funding,
7 the CEC is working with partner agencies and exploring
8 alternative funding mechanisms such as loan financing.

9 Next slide.

10 Now allocations for the program fund and General
11 Fund will also support a broader portfolio of activities.
12 The emerging opportunities allocation, for instance,
13 includes \$46 million from the General Fund over two years
14 for sectors that are only beginning to transition to ZEV or
15 zero-emission technologies, including zero-emission
16 aviation, locomotive, and marine vehicles.

17 The allocation will also support vehicle-grid
18 integration efforts, such as reducing charging during peak
19 demand or high carbon intensity hours for electric
20 vehicles, as well as bidirectional charging to actively
21 support the grid. Investments will support charging
22 technologies and behaviors that benefit California's
23 electric grid system.

24 Next slide.

25 Kristi had mentioned our statute here with

1 Assembly Bill 8 that directs the CEC to allocate \$20
2 million annually to not exceed 20 percent of the funds
3 appropriated by the legislature for the Clean
4 Transportation Program to deploy hydrogen fueling stations
5 until there are at least 100 publicly available stations in
6 the operation. And this Investment Plan allocates \$70
7 million for hydrogen infrastructure. This amount is a
8 minimum, not a maximum, since funding for medium- and
9 heavy-duty ZEV infrastructure will also be used for
10 hydrogen infrastructure, as well as funding from emerging
11 opportunities.

12 Funding from the Clean Transportation Program,
13 that's \$10 million for the remaining half fiscal year, will
14 be sufficient to meet and significantly exceed the 100
15 station goal set by AB8, while an additional funding from
16 the state's General Fund is expected to help California
17 meet the 200 station goal.

18 The Budget Act of 2022 allocates hydrogen
19 infrastructure funding at \$20 million per year for three
20 years, starting in Fiscal Year 2023-2024. The new funding
21 from the Budget Act of 2022 will allow the state to further
22 expand access to hydrogen infrastructure, including medium-
23 and heavy-duty vehicles.

24 Next slide.

25 And to support the development of clean, low-

1 carbon fuels, the Investment Plan allocates \$5 million for
2 Clean Transportation Program funding over the remaining
3 half fiscal year.

4 Next slide.

5 An additional \$5 million of Clean Transportation
6 Program funding will support ZEV workforce development,
7 prioritizing members of disadvantaged and low-income
8 communities. Workforce development strategies and
9 investments will be refined through a continued public
10 engagement workshop process.

11 Next slide.

12 And, of course, this is the funding allocation
13 table, which is quite overwhelming, but just for your
14 reference.

15 And that actually concludes my presentation. I
16 can now turn it over to Commissioner Monahan, who will lead
17 the Advisory Committee discussion. Thank you.

18 Oh, I should also mention that this presentation
19 is docketed if you need to reference the presentation.

20 So thank you.

21 COMMISSIONER MONAHAN: Thanks, Patrick.

22 And actually, if somebody maybe could post for
23 everybody where you could get the slides, since there was
24 so much in the slides? And if you stepped away for a
25 little bit, you may have missed something important.

1 So we have a number of questions for the Advisory
2 Committee. I'm going to run through them. Just as I said
3 in my introductory remarks, we're really looking for, you
4 know, sort of what's changed and how might we consider
5 revising the investments we're planning, given the changes
6 that we're seeing in the market or the barriers that we're
7 seeing?

8 As Matt highlighted, you know, there's
9 reliability issues facing chargers, there's reliability
10 issues facing hydrogen stations and, you know, just a lot
11 to consider in terms of what barriers we should really
12 focus state dollars on.

13 So I'm going to go through the questions for
14 consideration, and then we'll ask the Advisory Committee
15 members present to give their thoughts. We have allocated
16 three minutes per person. And if it turns out that some
17 people are faster, then maybe there'll be time for more.
18 Or if some people have more feedback, we might have to move
19 you along more swiftly just to make sure everybody gets a
20 chance to provide input if they want to. So let me just
21 read through some of our questions for consideration.

22 Does the timing and allocations between the
23 passenger light-duty and the medium-and heavy-duty
24 infrastructure investments, do they make sense? Do they
25 strike the right balance given what we're seeing in the

1 market right now? And if not, what adjustments should we
2 make?

3 I think we'll just go through all the questions.
4 Do you want to move through?

5 Does the Investment Plan reflect the needs of
6 equity communities, low-income, disadvantaged -- which I
7 know some I've heard some critiques of that term, but at
8 least from the state from recognizing -- how the state is
9 defining disadvantaged communities or underrepresented
10 Californians and California communities? If not, how
11 should we modify our investments? And a related question
12 is whether we should think about expanding or modifying
13 this Advisory Committee to make sure that we're getting all
14 perspectives kind of brought to light here.

15 And the next question: So is there any additional
16 contacts, contacts that we should be aware of, Samantha
17 from the Union of Concerned Scientists raised, like the
18 federal standards -- I think that's an important one to
19 add -- but new regulations, like Advanced Clean Fleets, or
20 market changes that we should factor into our decision
21 making processes?

22 My dog likes that one. I don't know if you can
23 hear. Alright.

24 And then, and finally, I think this is the last
25 one, I'm not sure though. It is. Thanks Patrick.

1 So we know what's happening with the state
2 budget, that it's tight budget times. We've had flush
3 budget times for the last two years. Now we're seeing the
4 other side, there's going to be hard choices, so any
5 changes you would make, given what you're seeing in the in
6 the state budget? As I said, we have the flexibility to
7 shift what we call program funds or the funds that come
8 from that \$100 million for your base program, but we can't
9 shift the priorities that were given in the General Fund.

10 So I want to open it up to the Advisory Committee
11 and I just ask you to raise your hand when you're ready to
12 make a remark. I know it can be hard to be the first one.
13 So we'll give you all a minute or two to just kind of
14 ponder these questions, ponder what you want to say. And
15 then if you could raise your hand when you're ready to make
16 a comment, that would be great.

17 Tracy is the brave one. Tracy, you're on mute,
18 so --

19 COMMITTEE MEMBER STANHOFF: And I was just moving
20 my screen over. Sorry. Thank you. Hi, Commissioner. How
21 are you doing? I hope everything's good. Anyway, I'll go
22 right quickly on through my points because there's a lot of
23 folks that have good information to share.

24 One, I wanted to thank the California Energy
25 Commission for taking to heart the tribal consultations.

1 That's an awesome undertaking and very appreciative.

2 One of the thoughts I had is please integrate the
3 federal outcome monies with outgoing monies that are coming
4 in with the state opportunities. There's a lot of
5 education that I believe needs to go on between the tribes,
6 the federally recognized tribes that do receive these
7 resources and the state.

8 And I think that's a great place to start for
9 implementation, not to exclude other tribes that aren't
10 recognized, but there are opportunities there that you can
11 make a low hanging fruit, that you can make a big impact
12 and education of how to implement that. Because as tribal
13 leaders, including myself when in another state, we don't
14 sometimes understand the opportunities that the states have
15 to integrate the funding and resources into our resources
16 and programs for implementation. So I really think focus
17 now on implementation and taking an audit of where the
18 tribal communities themselves directly from the tribal
19 leadership is important and integral in helping our people
20 get tribal charging stations and so forth.

21 So anyway, again, thank you very much for your
22 support and your specific outreach. We are a very
23 important community in California and a lot of right of
24 ways and so forth go through our tribal lands. And we've
25 been dealing with utilities. And somebody mentioned

1 broadband. Yes, we're working with the broadband providers
2 throughout the state to help folks. But energy and access
3 to it is still a very critical and crucial part of growth
4 of tribal people here in California, so thank you.

5 That's all I got to say. And wonderful
6 presentation, though, too. Really enjoyed it today. And I
7 love the way you guys blew through it and got all that
8 information out. And I really appreciate your timing, so
9 thank you.

10 COMMISSIONER MONAHAN: We're glad it didn't cause
11 your head to explode. Well, thanks, Tracy, for those
12 comments.

13 And I also want to say, like I feel really proud
14 of the Tribal Energy Sovereignty Resolution that we signed
15 a couple of months ago and the work writ large at the
16 Energy Commission to try to make sure we're doing sort of a
17 better job supporting tribes and supporting the unique
18 energy needs of tribes. And it just really appreciate your
19 participation on this Advisory Committee and a lot of work
20 to be done but looking forward to rolling up our sleeves
21 and doing a better job.

22 COMMITTEE MEMBER STANHOFF: Well, thank you.
23 Maybe you can join us for our annual infrastructure summit.
24 We go out in the desert in July because it's cheaper and we
25 buy Indian. So I'll send you a letter about that --

1 COMMISSIONER MONAHAN: Alright. Sounds great.

2 COMMITTEE MEMBER STANHOFF: -- and you can join
3 us. We'd love to see you.

4 COMMISSIONER MONAHAN: Excellent.

5 COMMITTEE MEMBER STANHOFF: Thank you.

6 COMMISSIONER MONAHAN: Alright. Thanks, Tracy.
7 Lisa?

8 COMMITTEE MEMBER MACUMBER: Lisa Macumber with
9 CARB. Commissioner, thank you for having me today.

10 And, staff, really great work on the
11 presentations today.

12 I think the key things for me to highlight, we
13 really appreciate the work that's being continued on EV
14 charging, making sure it's abundant and it's accessible
15 throughout the state, and the continued work in hydrogen
16 infrastructure as well. But I really want to highlight in
17 particular that we do see the increased focus on equity.
18 And the key things that you guys covered today, I think for
19 me, is development of the community benefits framework.
20 That's a really important piece, I think across all of the
21 different components, as well as very interested in
22 continuing to follow the findings of the gap analysis on
23 fast charging and how we ensure that access to fast
24 charging is equitable and reliable.

25 I'm also very excited, as simple as it is, to see

1 the work on signage, ensuring that signage is throughout
2 the state and that consumers can find the charging
3 stations. That's really important.

4 But when it comes to the investments in
5 particular, we do think that the proposed investments in
6 both the light- and the heavy-duty space are very
7 important.

8 To your first question, I think that they are
9 very well balanced, but I do want to highlight that the
10 investments in heavy-duty zero-emission charging is very
11 critical for us right now. It's very critical in
12 supporting the Advanced Clean Fleets Regulation that our
13 board is actually hearing today. So just want to thank you
14 for the continued work there.

15 And then also on the question on equity and how
16 that kind of fits in with this group here, you know, what
17 we've done a lot more of in our public meetings is making
18 sure that we do have a lot of smaller grassroots community
19 members participating. They've found their way to us,
20 thankfully, because it can be very hard to find them often.
21 But once they do come, keeping them here and keeping them
22 at the table, we think is really, really important. Having
23 the non-governmental organizations and the larger
24 grassroots groups are great. We need them at the table
25 too. But the smaller folks that haven't been really

1 represented, bringing them into these conversations we
2 think can really help a lot too.

3 So thank you very much for all the hard work
4 coming together for today. It was great.

5 COMMISSIONER MONAHAN: Thank you, Lisa and the
6 team at CARB, because you guys are just passing world --
7 you know, regulations that really we want to see migrate
8 across the globe. And just proud to be your partner and
9 just recognize the critical role that Air Resources plays
10 in vehicle standards development, not just here, but across
11 the country and across the world.

12 Eileen?

13 COMMITTEE MEMBER TUTT: Thank you, Commissioner.
14 And excellent presentation by all of the CEC
15 staff, as usual.

16 I do want to just say that one of the questions
17 you had was the balance between light- and medium- and
18 heavy-duty investment. And Lisa at the Air Resources Board
19 commented on this as well. And what I really appreciated
20 about the question and about the report is that we have had
21 this in the past. This Committee has had the sort of
22 tension between, you know, we need more, you know, like
23 it's almost like we've pitted the two against each other.
24 And I feel like that movement away from that is very much
25 reflected in this report.

1 And even the question, I do think you've gotten
2 the balance right. We are nowhere near done with the
3 light-duty side. And we definitely need a lot of
4 investment in medium- and heavy-duty. So at the end of the
5 day, we're probably not going to have enough money. You
6 can see the gap was huge on the light-duty side. So I
7 don't want to lose sight of that while also focusing on
8 medium- and heavy-duty. And I think this report does a
9 very good job of that, so I appreciate that shift.

10 I also appreciate the focus on jobs and economy.
11 I will just say that CEC has been very, very supportive of
12 our grassroots outreach efforts and has attended -- Larry
13 has attended numerous meetings with, you know, these
14 smaller equity groups, faith communities and others. And
15 the concern that they have largely is around jobs and the
16 economy. Is this shift going to take away jobs from these
17 communities or is it going to lift them up and bring jobs
18 to these communities? And I feel like the focus on that is
19 going to be increasingly important as we invest these
20 hundreds of millions of dollars.

21 I also want to just say that in a lot of these
22 communities, and the tribal representative brought this up
23 as well, the grid side costs, the electricity grid is just,
24 there's grid challenges. The customer side of the grid and
25 the grid side electrification is just not there in order to

1 install charging infrastructure. And that requires more
2 funding because these smaller local entities don't have
3 funding, even though it's their side, the customer side of
4 the costs. So I appreciate also that the CEC has really
5 taken that into account. And I just want to encourage you
6 to continue to do so, recognizing that customer side costs,
7 just upgrading the grid in these communities can be very
8 costly and the CEC needs to stay focused on that.

9 And then finally, I also just want to say that
10 one thing that I felt was missing a little bit that's been
11 the focus of other meetings is the need to make sure that
12 charging infrastructure in communities is affordable. And
13 so that's why even though I know we need more, DC fast
14 charging tends to be the most expensive way to charge your
15 car, so I also like the fact that we aren't done on the L2
16 and L1 side, particularly in MUD, but I don't want to lose
17 focus on that. And I felt like we kind of lost it a little
18 bit in this report. Like we got to make this charging
19 affordable as well as accessible.

20 Thank you.

21 COMMISSIONER MONAHAN: Thanks, Eileen. Yeah, I
22 really appreciate that emphasis on affordability. It's
23 like affordability on the infrastructure side and
24 affordability for lower-income families on the purchase of
25 the electricity for their vehicles. So I think, as you

1 point out with DC fast charging, actually the costs are
2 higher. It could be even gasoline like prices on some of
3 this DC fast charging. So L2s are a cheaper way to refuel.

4 John?

5 COMMITTEE MEMBER FRALA: Good morning, everyone.
6 I have a question, kind of retains back to the workforce
7 piece. And I can kind of add a little bit to what Eileen
8 was asking.

9 So on our campus here, we've had an electric
10 vehicle degree for over 25 years. And I'm seeing a new
11 type of student come back in here in their 30s to 40s, and
12 in some cases, the 50-year-old area, trying to retrain for
13 this new workforce that's coming out there. We are seeing
14 the public accepting this new technology and how to prepare
15 for it.

16 But my question is, is we've done a lot of work
17 with Larry and Tami in the past on some of the training
18 that we're doing for industry, as well as the community
19 bringing them into this, how can we now as a college work
20 in more alliance with what the CEC is now putting into the
21 infrastructure to make sure that our students are trained
22 properly so they go into the workforce with the right
23 requirements for the jobs?

24 COMMISSIONER MONAHAN: Yeah, John, that's a great
25 comment.

1 And, Larry, I don't know if you want to give a
2 one-sentence response or if one is needed?

3 MR. RILLERA: Yeah. Thank you, John, for that
4 comment. This is kind of a trend we're actually seeing in
5 just-transition areas where the skilled workforce and
6 working with the incumbent technologies are looking to move
7 into this clean space, leveraging their existing training
8 certificates and things like that. But that is certainly
9 an area we can pick up a little more offline but appreciate
10 the comment.

11 Thank you.

12 COMMISSIONER MONAHAN: And Robert, I see you
13 popping up, but I don't see your hand. Do you want to
14 speak?

15 COMMITTEE MEMBER MEYER: Thank you. I would just
16 like to say that I think that there are many opportunities
17 to work with the, sort of the early adopter companies that
18 do provide, as they transition into the space, sort of the
19 recognized skill sets and in the form of job skills
20 training that can be replicated by feeder programs,
21 particularly in K-12, K-16 environments. I think that
22 they're all searching for workers.

23 I think, as well, as we look into rural
24 communities that do not have these established
25 partnerships, there's a real opportunity to replicate the

1 formation of job pathway programs built around the
2 technology. I think we need to lean into the community
3 colleges, particularly the contract Ed cited that has
4 established relationships with many of these employers.

5 And I think we should also align with other types
6 of funding investments, particularly things like the CHIPS
7 Act in technology areas, where there might be a bit of an
8 overlap and we might be able to leverage additional
9 partners and particularly in the technology space that can
10 really bring about meaningful skills development.

11 I wonder if John Frala would want to add a
12 comment to this because I think he's been doing a lot of
13 this work for many, many years.

14 Thanks.

15 COMMISSIONER MONAHAN: Thanks, Robert.

16 And, John, we'll give you one sentence, even
17 though it's breaking the rules.

18 COMMITTEE MEMBER FRALA: I don't want to break
19 rules, but as Robert was indicating, there's a lot of us
20 out here that have been doing this for a long time. We've
21 gone as far as this year to acquire NSF funding to start an
22 all-female EV Academy, bringing high schoolers right into
23 the electric vehicle market to try to fulfill this
24 workforce development that we're seeing to supply not just
25 the cities and the municipalities, but the private

1 companies also, that type of training.

2 So, yeah, I'm really open to whatever comments
3 people have to try and make this workforce fully trained to
4 accept us so that we don't have that lack like we did with
5 some of the prior things that we've tried in the state.

6 COMMISSIONER MONAHAN: Yeah, that's great
7 feedback. And I must say, every company I meet with in the
8 manufacturing space is saying the same thing. You know, so
9 it's the repair side, but it's also the manufacturing side
10 that we're hearing that same concern about workforce.

11 Alright, any other Advisory Committee members
12 want to make comments? I don't see any hands raised.

13 MR. TUGGY: We do have a few hands, Commissioner.
14 I believe the next is Kevin.

15 COMMISSIONER MONAHAN: Oh, thanks. You know, I
16 think I'm not looking at the right -- can you give me a
17 hand here? Because I think I don't have the right setting
18 to see them.

19 MR. TUGGY: Yeah, go ahead, Kevin. I think you
20 were next.

21 COMMITTEE MEMBER HAMILTON: That's fine. You
22 know, I would --

23 COMMISSIONER MONAHAN: Sorry. Sorry for blowing
24 through -- now I see. Now I'm back on the right thing.
25 Okay.

1 COMMITTEE MEMBER HAMILTON: That's alright,
2 Commissioner Monahan. Thank you. Thank you for all you
3 do. So a couple of questions jumped to mind in answer to
4 your questions.

5 So why do we see in the hydrogen infrastructure
6 map, still this lack of equity for the larger cities in the
7 San Joaquin that are the loading place for over \$7 billion
8 in produce and other manufactured goods that leave this
9 valley every year? So we are not the passthrough place for
10 these trucks. There seems to be, at least based on this
11 planning, a consistent bias in that direction, not
12 recognizing that, in fact, the overwhelming majority of
13 trucks here in the San Joaquin both originate and end here
14 as they move from packing sheds and the large manufacturing
15 facilities.

16 One of the largest in the nation, for instance,
17 is Gallo and Gallo Glass, which makes most of the glass for
18 almost all the wine they distribute. And then that goes in
19 a truck and heads to the Bay Area. But we have no hydrogen
20 refueling facilities either in place or appears in
21 planning. And maybe there's a map I haven't seen yet.

22 So, you know, the idea of having one in those
23 areas where tens of thousands, I would argue probably
24 hundreds of thousands of truck trips are taking place every
25 year is a huge inequity in this process and it needs to be

1 addressed. We've been talking about this, I think, for
2 three years now, or four years. So that really concerns
3 me.

4 The other piece is infrastructure. Well, why
5 aren't we focusing at some of these smaller communities out
6 there to make sure they have, say, Level 3 chargers? Well,
7 because the Commission hasn't exercised any of its
8 authority to push. Well, it's starting to with this
9 reopening of SB 100. So I'm really excited about that and
10 looking at that and doing more there but, you know, we need
11 better infrastructure, obviously, in these communities.
12 Otherwise, they're going to be abandoned by this, just like
13 so many other kinds of benefits walk past them and they get
14 to watch them happening but don't get to participate.

15 So, again, I get the initial focus at large urban
16 areas in Southern and Northern California. That's where
17 the biggest chunk of people are. But, you know, when do
18 you hit critical mass there where, you know, the thing is
19 working on its own for the most part? Obviously, we have
20 to continue picking up the low-income and disadvantaged
21 communities in those areas because, again, they get left
22 behind quite often or just industrialized. And that's how
23 they end up getting access to these assets, because the
24 infrastructure was going in for the factory that's two
25 blocks from them. But, you know, there's this whole other

1 group that is disenfranchised almost completely by this.

2 So, you know, we need to go back, take a look and
3 decide what we want to be, how we want to frame equity in
4 this state when it comes to these assets.

5 Thank you.

6 COMMISSIONER MONAHAN: Great. Thanks, Kevin.
7 Really appreciate that comment. And, you know, this focus,
8 our SB 1000 Report did find that rural communities lacked
9 equitable access to EV charging. And you're making the
10 point, the same point, on the hydrogen fuel cell and
11 hydrogen access side, so just point well taken. We're
12 listening to that.

13 I would say on the truck side, you know, these
14 stations are mostly light-duty that were the 200 stations,
15 but some of them are multipurpose, so they'll include a
16 place for at least medium heavy-duty vehicles to refuel.
17 And we're really trying to think through these. What's the
18 synergies between light-duty, medium- and heavy-duty
19 refueling on hydrogen?

20 Alright, so --

21 COMMITTEE MEMBER HAMILTON: Thanks. So I will
22 comment that the majority of the trucks pulling that stuff
23 are going to be Class 8t or lower because they're only
24 going to the ports or going to a warehouse.

25 COMMISSIONER MONAHAN: Yeah.

1 COMMITTEE MEMBER HAMILTON: So there's not a lot
2 of class nine and above vehicles, but there's a lot of
3 medium and medium heavy-duty vehicles.

4 COMMISSIONER MONAHAN: Thanks, Kevin.

5 COMMITTEE MEMBER ELRICK: And I see Bill Elrick
6 is next. Oh, Bill, you might be on the dreaded double
7 mute.

8 COMMITTEE MEMBER ELRICK: How about now?

9 COMMISSIONER MONAHAN: There we go.

10 COMMITTEE MEMBER ELRICK: Too many new buttons.
11 Thank you. And thanks for another great report. And just
12 congratulations -- (clears throat) excuse me -- to the
13 staff, the program, and everything on helping achieve that
14 1.5 million ZEVs. Really great effort and milestone.

15 And I also want to compliment the increased
16 focus, and maybe even seeing more of it around the
17 workforce. We heard a lot of that. We're seeing more and
18 more need. Love to see more there and on the community
19 engagement, so keep all that up.

20 Referencing the discussion of light-duty and
21 heavy-duty infrastructure, we know infrastructure is
22 challenging and they're very different. So for both
23 charging and hydrogen, keeping a focus on both where they
24 can be complimentary or co-located, great, but need to keep
25 moving on both of those independently most often.

1 And then I did want to draw back to something
2 Mike Nicholas spoke about for a bit, and that's on the
3 infrastructure availability and reliability. Really glad
4 to see that work starting. We're doing some of that on the
5 hydrogen side, trying to look at the root cause. And I
6 think I would love to work with CEC more on that and the
7 other agencies because we think that may dramatically lower
8 the real hydrogen or fuel availability and, thus, the
9 amount of ZEVs supported overall.

10 And then finally, just trying to rapid through
11 these things, really would love to see, as we're getting to
12 wrap up the program, a return to the reporting on the
13 environmental impacts and the petroleum reduction impacts
14 so we can really see how the program's doing on those core
15 objectives of the program. I think they'll come out very
16 well, but we haven't seen that report in a few years.

17 So keep up the great work and thank you. We look
18 forward to working with you more.

19 COMMISSIONER MONAHAN: Thanks Bill. Appreciate
20 those comments and agree that we need to work together on
21 improving sort of the customer experience writ large,
22 whether it's at a charger or at a hydrogen refueling
23 station. And there's just a lot of opportunity to improve
24 the customer experience and look forward to partnering with
25 you on that.

1 COMMITTEE MEMBER ELRICK: Thank you.

2 COMMISSIONER MONAHAN: Alright, I see next we
3 have Gia Vacin from GO-Biz in the queue.

4 COMMITTEE MEMBER VACIN: Hello. Thank you. I'm
5 not sure if my camera's working, but maybe it will come on
6 here in a minute. There we go. Great. Thanks for the
7 opportunity to comment here.

8 Just to start off with, again, echoing what other
9 people have said, thanks for the hard work, really
10 thoughtful plan. It's evident in reading through how much
11 energy was put into thinking about the different priorities
12 and how to balance that. And so I think overall it's
13 really well done.

14 I do think there's good balance between the
15 light-duty and heavy-duty split there. Others have gone
16 into more detail. I kind of agree with what's been said
17 already.

18 I also agree with what several have said,
19 including, you know, specifically with regard to equity and
20 what Lisa was saying around inclusion of smaller groups.
21 And so if we can think together in this group, and it's one
22 of the questions here, on how to be a little more inclusive
23 there, I think that there's more work to do there. I don't
24 have a great answer in this moment but I think that that's
25 something that we should spend some more time on and

1 thinking really through, when we're thinking about equity,
2 the lens that somebody said of accessibility and
3 affordability.

4 And I would also include thinking about the
5 dynamic of sort of financial inclusion and how do we ensure
6 that people have the means, and I mean in terms of sort of
7 the way we're thinking about including them for underbanked
8 and unbanked people and how do we think about financial
9 inclusion there. So not that this would be reflected in
10 that Investment Plan, but just as we're thinking about
11 going forward.

12 Many people have mentioned workforce. I agree,
13 the opportunities that we're hearing it a lot too in terms
14 of training and apprenticeship programs and being able to
15 partner with our many different academic institutions
16 throughout the state, if anything, I think having \$5
17 million there is a good start. I think if anything, there
18 potentially could be more in that spot. I think that it's
19 coming fast and there's a lot to do there and a lot -- I'm
20 hearing a lot of chatter around interests, so more money to
21 get organized around how we do that better.

22 Let's see. And then just two other points.

23 I really do appreciate this, kind of the
24 different funding mechanisms, right, and thinking about how
25 to be even more flexible and more creative. And so I'll be

1 interested to hear how things go as you look into the loan
2 program and what that might look like. And I think I've
3 just noticed the evolution over time with the CTP in the
4 different kinds of funding mechanisms, and I think that's
5 really showing in how money is going out the door these
6 days.

7 And lastly, I would just want to say the looking
8 forward piece and emerging opportunities, same thing;
9 right? I think that that's just putting some money there
10 to think about what's coming next and how do we prepare for
11 that is really wise.

12 So those are my comments on the Investment Plan.

13 I just have one thing I wanted to mention with
14 regard to Kevin's comments. And I think he's right on in
15 terms of equity and kind of inclusion around the hydrogen
16 space. And I wanted to say, let's not forget even just
17 recently, the NOPA came out for GFO-22-607. And in that,
18 there are, you know, there are two stations, as I
19 understand it, kind of on the 99 and on the 5 that are
20 heavy-duty, multi-use, include light-duty, include heavy-
21 duty, and some pretty massive as I understand it, daily
22 throughput for hydrogen. So I think we're heading in that
23 direction. Yes, more is needed. And I think that I
24 appreciate Energy Commission's awareness of that. And
25 let's keep going.

1 Thanks for the time. And sorry, I went over.

2 COMMISSIONER MONAHAN: Alright. Well, thanks, Gia.

3 And thanks for your leadership on the ZEV Market

4 Development Strategy and really all things ZEV and cross-

5 agency collaboration. And especially, I think, for what

6 you have been doing in terms of better understanding how we

7 could use a charge card or just a credit card to be able to

8 fund charging for lower income families, just a lot of

9 innovation in your space, so thank you.

10 COMMITTEE MEMBER VACIN: Yeah.

11 COMMISSIONER MONAHAN: Alright, next. Oh, and I

12 did want to say, I forgot to mention, Bill had talked about

13 the report that we do on benefits and we are doing it this

14 year. So NREL, our partner, is going to be doing that as

15 part of the annual Energy Policy Report, so we'll have it

16 this year.

17 Matt, you're up next.

18 COMMITTEE MEMBER GREGORI: Thank you. Thanks for

19 the opportunity to comment.

20 Commissioner Monahan, you mentioned earlier today

21 that California hit our ZEV sales target two years early.

22 And so within the context of how do we allocate funds

23 between light-duty and heavy-duty, I think that's an

24 important data point to consider. I don't have a strong

25 position on the allocation, but I just, I pulled up a

1 couple of data points that I think would be interesting to
2 inform that. I think that's one.

3 And the question is, from the Investment Plan's
4 perspective, are there targets that we will hit that
5 indicate that the light-duty market has launched from the
6 launch pad? You know, in which case it's very clear and
7 should trigger some different allocation towards medium-
8 and heavy-duty. It's just something to consider
9 forecasting that out potentially to set those expectations
10 or provide some clarity to the market in the future.

11 You know, it's interesting, CARB's 2020 Mobile
12 Source Strategy shows that NOx emissions from the on-road
13 sector have decreased so much in the last 15 years that
14 they're now equal with off-road application boats and
15 trains, and that was in 2020. So from a NOx perspective,
16 there may be some data indicating shifting towards off-road
17 or heavier duty applications. Of course, then the UC Davis
18 study noted that light-duty accounts for 70 percent of
19 California's GHG emissions and heavy-duty only accounts for
20 20 percent of California's GHG.

21 So it seems like a complicated problem, but I'm
22 in the middle of regulatory season here in the utility, and
23 so always looking for references to support arguments. And
24 I just think being data-driven is an important way to kind
25 of support the allocation of funding.

1 Just to follow up on some previous comments, too,
2 multi-unit housing still seems to be a challenge for
3 charging. I think this has been sort of a perennial issue
4 for years. How do we build those business models? It may
5 be worth looking into hydrogen fuel stations as an
6 alternative for zero-emission vehicles for high-density
7 housing, particularly low-income communities with high-
8 density housing where this charging challenge continues to
9 persist.

10 And then on the charge cards, I think that's
11 really cool. I lived in Hong Kong for a few months when I
12 was in business school and everybody in Hong Kong gets an
13 Octopus card. You use it to get on the Metro, to get on
14 the bus. You can use it at McDonald's and 7-Eleven. So I
15 think it's really interesting to see the potential for
16 like, in L.A., I had a tap card that I could use at all the
17 transit agencies. It'd be great if that could also be used
18 to charge my EV or maybe also buy a soft drink or some
19 Twinkies while I'm on the road.

20 And so thank you for the opportunity to comment.
21 Appreciate it.

22 COMMISSIONER MONAHAN: Thanks, Matt. Appreciate
23 your comments. And I appreciated what you had said in the
24 chat, too, about charging experience and how we need to
25 improve the customer experience just writ large.

1 Alright, Morris, you're up next.

2 COMMITTEE MEMBER LUM: Thank you for the
3 informative presentation, Commissioner, and to your staff.

4 I do understand the push toward tractor-trailer
5 vehicles and their pollution priority. But I drive around
6 a lot everywhere in California and I do see electric
7 vehicles driving slower, hampering the traffic flow,
8 probably because they're conserving power so they can go
9 slower. And I think we probably need more fast chargers
10 along Highway 5 and Highway 99. That's one thought of
11 mine. And I wonder if there's a possible incentives that
12 would help to promote and devise some type of pair of
13 electric wheels that could be an add on to cars where it
14 could possibly assist on freeway driving and increase
15 freeway highway mileage by 25 to 50 percent.

16 On disadvantaged communities, I see a dilemma of,
17 without charging stations, the disadvantaged citizens in
18 the communities wouldn't buy an EV. I don't know if the
19 manufacturers would gear anything toward them if they're
20 not buying, but then I could see if there was a rebate of
21 some sort or used EVs that disadvantaged communities and/or
22 other people could buy would be a wonderful helping hand.

23 And I do know about the afterlife of batteries
24 that when they're not good enough for the vehicle, they are
25 being tested and reconditioned and applied elsewhere so

1 they don't really destroy the batteries. They're being
2 reused in the aftermarket for other vehicles and for other
3 devices. And even on more inclusion of a bigger group,
4 it's tougher, but this is a giant topic for California. I
5 could see where there's more inclusion needed.

6 And thank you very much.

7 COMMISSIONER MONAHAN: Great, Morris. Thank you
8 for those comments. I got to say, as an EV driver, I think
9 of myself as going too fast. But anyway, I'm curious about
10 what those EVs are.

11 Alright, Morgan, you're up next.

12 COMMITTEE MEMBER CASWELL: Good morning. I'm
13 going to stay off camera just because there's chaos in the
14 background here. We're having some work done at home. So
15 bear with me.

16 So it's clear that there's, you know, a lot of good
17 work underway. And the CEC is trying to tackle a lot of
18 different issues at once through a variety of efforts. I
19 was glad to hear, you know, early acknowledgement of the
20 two goods movement related rules the California Air
21 Resources Board is adopting today.

22 I would, you know, certainly encourage the CEC to
23 consider always, you know, whether a funding opportunity
24 supports a rule versus a goal and what the associated
25 timeline is with those, just understanding that the state

1 regulations adopted for goods movement are very much
2 technology forcing and the timelines are incredibly
3 aggressive. So I appreciate the question that you offered
4 here today.

5 I'll use the Advanced Clean Fleets Regulation as
6 an example. Zero-emission truck requirements for drayage
7 in particular will start January 1st, 2024. And, of
8 course, there are only two public chargers available today
9 to support up to 20,000 trucks in the San Pedro Bay Port's
10 drayage fleet.

11 We really need to emphasize support for the early
12 adopters, whether it's a CEC-led funding solicitation or
13 development of applications to the federal government. You
14 know, for example, we're not going to see many trucks on
15 the I-5 because it's the longer-haul trucks that will
16 travel that corridor from Canada to Mexico. You're going
17 to see nearly all early truck deployments around the ports,
18 particularly the 710, which has a lot of disadvantaged
19 communities around it because there are still limitations
20 on how far these zero-emission trucks can travel.

21 I'm happy to say, you know, the Port of Long
22 Beach has been in close coordination with CEC staff on the
23 Charging and Fueling Discretionary Grant Program, and we
24 certainly appreciate the opportunity to collaborate with
25 them.

1 I also want to strongly encourage another look at
2 NEVI, sooner rather than later, in light of this, just
3 getting back to the concern that we have, you know, just a
4 really aggressive fleet rule for trucks.

5 I am glad to see the Investment Plan has drayage
6 truck ZEV infrastructure allocated predominantly in the
7 early years, Fiscal Year '23 to '24, a little less or so in
8 '24 to '25 because that indicates the urgency. The same is
9 true for the clean trucks, buses, and off-road equipment
10 ZEV infrastructure funding.

11 For the port infrastructure funding set aside, I
12 would even recommend advancing that \$30 million in '25 to
13 '26 fiscal years. You know, we really need to allocate
14 that funding quickly, and I think your emphasis on Fiscal
15 Years '24 to '25 is, you know, spot on. A lot of terminals
16 are doing planning today and they really should be ready
17 for deployment.

18 And then finally, I do want to support the focus
19 of the emerging technologies funding on zero-emission
20 locomotives and marine vessels. I think we're going to see
21 a ramp up of investment in this space, particularly in
22 light of the In-Use Locomotive Regulation, you know, to be
23 adopted today, and then the Commercial Harbor Craft
24 Regulation.

25 So those are my comments. Apologies for going

1 over but thank you again as always for this opportunity.

2 COMMISSIONER MONAHAN: Thanks, Morgan. Really
3 appreciate those comments. I just appreciate how ports are
4 working so hard to decarbonize and kind of leaning in where
5 the technology doesn't fully exist yet, so making
6 investments in these prototype vehicles and charging and
7 refueling infrastructure writ large. So we do want to make
8 sure that we're doing all we can to support implementation
9 of CARB's regulation to support ports with their plans as
10 well. Just appreciate your comments in this space.

11 Samantha, I'll turn it to you.

12 I'm going to go off video for a second because I
13 got to get my dog out of whatever situation she's barking
14 about.

15 COMMITTEE MEMBER HAMILTON: Samantha? Samantha,
16 this is Kevin Hamilton. Do you mind if I jump in real
17 quick? I've got to take a kid to school here.

18 COMMITTEE MEMBER HOUSTON: Sure, jump on in,
19 Kevin.

20 COMMITTEE MEMBER HAMILTON: Just a minute. I
21 didn't want to leave without saying, you know, overall, I
22 support this plan.

23 By the way, CCAC is one of those small
24 organizations you're talking about that works in the San
25 Joaquin Valley and does its work through a collaborative of

1 eight organizations in the valley, small nonprofit EJ
2 organizations.

3 I think the way you've managed the governor's
4 decrease in the budget and kept these programs alive and
5 redistributed that money is really great work, tough work.
6 And I think it came out pretty well, so thank you very
7 much. And thank you for the presentation this morning.
8 Really appreciate it.

9 That's it. Thanks, Samantha.

10 COMMISSIONER MONAHAN: Alright. Thanks, Kevin.

11 COMMITTEE MEMBER HOUSTON: Yeah, no problem
12 there. That's actually a great comment to build on, you
13 know, sort of the overall pulling back. I get caught in
14 the details but pulling back to the overall picture, just
15 really appreciative and thinking that this is all looking
16 really full speed ahead. And, you know, as a member of an
17 organization that's continuing to push for to get more of
18 those dollars through the budget or reauthorized, you know,
19 hopefully we can keep building on this.

20 A few things I wanted to pick up on in the
21 discussion here.

22 I would plus one the, you know, commendation on
23 really digging into focus on equity that's been that's been
24 noted here. I'm really excited to see that community-
25 benefits framework moving forward and very much going to

1 stay tuned for more as that continues.

2 And one thing that struck me in hearing the
3 presentations today and reading the some of the actual text
4 of the plan earlier this morning is it seems like we're
5 really getting to a place where we have a lot of programs
6 that are targeting low-income, disadvantaged, pollution
7 burdened, underserved communities, and even many that are
8 exclusive to those communities. And I would say that's a
9 direction we need to continue to move. And, you know, I
10 think we all know that, but I think that's underscored by
11 the really exciting data that was also shared from the
12 dashboard where, you know, we're getting pretty far along
13 in EV adoption. You know, we've got we've got a lot
14 farther to go. But we're well we're well in the mainstream
15 now and we need to make sure everyone can be a part of
16 that.

17 I see the overall categories here and I see that
18 the emerging opportunities that includes the really
19 excellent vehicle-grid integration ideas is part of the
20 General Fund, so that can't be moved around too much. But
21 what I would say is really build on that and all of the
22 other infrastructure categories to include some sort of
23 vehicle-grid integration as part of project criteria. We
24 really can't let any opportunity at least to implement load
25 management go by.

1 I like what I was hearing with reliability. Keep
2 that up.

3 And I was very interested in the loans idea as
4 well. I think it's really important to continue to
5 innovate how we fund these things. And especially as we
6 get further along in various markets, I don't think it
7 would be good for every segment or every use case, but I
8 think we are in a place with some segments where, you know,
9 loans really could make these projects viable. And I'm
10 hoping those loans would sort of be revolving, where, you
11 know, we could keep the money paying forward to keep our
12 progress moving and not always have to rely on new dollars
13 for everything, just given all the competing and very
14 important interests.

15 The one thing I'll mention in my last seconds in
16 terms of additional context is that the Megawatt Charging
17 System Standards are in development. They're not finalized
18 yet. But I would just encourage the team, keep that on the
19 radar and think about how that impacts what could possibly
20 be done with some of these heavy-duty programs and how much
21 that might cost, so how much money you might need to put
22 towards that to make those projects viable.

23 Thank you so much.

24 COMMISSIONER MONAHAN: Thanks, Sam. Appreciate
25 those comments and the focus on vehicle-grid integration

1 and how do we make sure that these we always say, how do we
2 make sure EDs are good citizens of the grid? It's an
3 opportunity and a challenge. So we hear that.

4 I don't think --

5 MR. TUGGY: Commissioner, can I just in really
6 quick?

7 COMMISSIONER MONAHAN: Oh, yeah. Go ahead.

8 MR. TUGGY: I just wanted to make a quick verbal
9 announcement. If anyone's calling in, any Advisory
10 Committee members are calling in via phone and can't see
11 the instructions, you can press star nine to raise your
12 hand, so that's star nine to raise your hand and star six
13 to unmute.

14 Thank you.

15 COMMISSIONER MONAHAN: So waiting to see if any
16 new hands get raised based on what Benjamin just said.

17 Maybe, Benjamin or somebody, you could put it
18 into the chat for everybody so they could -- we'll give
19 folks a minute.

20 Are we missing -- is anybody tracking to see if
21 every Advisory Committee member who's present got a chance
22 to speak?

23 Alright, I'm not seeing any new raised hands, so
24 what I would say is if any of the Advisory Committee
25 members who have spoken want to -- have thought of

1 something based on what they heard from others or just have
2 a new idea, you can raise your hand and we'd give you a
3 minute or two to express that and then we'll turn to public
4 comment.

5 Alright, Tracy.

6 COMMITTEE MEMBER STANHOFF: I also wanted to
7 commend, for on the presentation, I saw something about
8 supplier diversity and helping of the build out, because
9 this is going to be a big or continues to be a big effort
10 within the state, so we appreciate that notation in there.
11 And perhaps adding something about capacity building and
12 technical support for both businesses, and I think you've
13 already mentioned it for workforce development, to be able
14 to participate in this process more fully.

15 Thank you.

16 COMMISSIONER MONAHAN: That's great. Thanks,
17 Tracy.

18 Alright, Samantha.

19 COMMITTEE MEMBER HOUSTON: Thanks. Yeah, I guess
20 just with the extra moment, I would pick up on the theme of
21 Level 2 specifically with regard to workplace. The Staff
22 Draft Report does acknowledge important context like the
23 CPUC's transportation electrification framework and so I
24 know y'all are aware of what that's focusing on. And one
25 thing that it's not focusing on is workplace, which could

1 be really important, along with other daytime charging
2 opportunities, to do some of that vehicle-grid integration
3 we were just talking about in terms of just taking
4 advantage of abundant solar and reducing those charging
5 demands on the grid at other times.

6 So I agree with the remarks about the need for
7 fast charging and a lot of away from home charging cases, I
8 do think that, you know, the workplace and daytime long
9 dwell remains important part of the balance.

10 Thank you.

11 COMMISSIONER MONAHAN: Yeah, thank you. We want
12 to run our vehicles on sunshine.

13 Okay, one last minute for any other Advisory
14 Committee members before we expand to the public.

15 Alright, I think we can move it, Benjamin, to
16 public comment.

17 MR. BRECHT: Before we go, before we do that,
18 Commissioner Monahan, I just want to make an announcement
19 that we have lost our majority for this meeting of Advisory
20 Committee members.

21 COMMISSIONER MONAHAN: Patrick, I think it's okay
22 because we're not -- it's not voting.

23 MR. BRECHT: Right. Just want to make that
24 aware.

25 COMMISSIONER MONAHAN: So, yeah, okay.

1 MR. BRECHT: Thank you.

2 COMMISSIONER MONAHAN: Alright.

3 MR. TUGGY: So any members -- oh, go ahead.

4 COMMISSIONER MONAHAN: No. I was just going to
5 pass it to you.

6 MR. TUGGY: Alright. I was just going to say, if
7 any members of the public would like to speak, they can
8 raise their hand. I see a couple now. And once again, if
9 you're calling in via telephone, you can press star nine to
10 raise your hand, and then star six to unmute. CEC staff
11 will need to give you permission to speak, so let's see
12 who's up first. I am actually not seeing the raised hands,
13 although I know there is one. Maybe someone can help me
14 out here.

15 MS. HAAS: Yes, we have Romic Aevaz. I'm
16 allowing him to talk.

17 MR. AEVAZ: Hi there. Is my audio coming
18 through?

19 MS. HAAS: Yes.

20 MR. AEVAZ: Alright. Thank you so much,
21 everyone. I'm Romic Aevaz, a policy associate with EVgo.
22 Thanks again to the CEC for the informative workshop and
23 the opportunity to speak and provide public comment.

24 EVgo owns and operates one of the largest fast
25 charging networks in the country, with over 330 sites in

1 California and over 40 percent of those in low-income
2 communities. We're grateful for the proposed Investment
3 Plan and encourage the CEC to develop new program
4 opportunities that support the development of hybrid fast
5 charging hubs that include both publicly accessible
6 chargers and dedicated chargers for high-mileage fleets,
7 like TNCs.

8 You know, given our twin challenge of
9 electrifying private vehicles and TNC vehicles with the
10 Clean Miles Standards and previous CARB solicitations that
11 allowed for hybrid sites that recognize the unique charging
12 profiles of light-duty fleet drivers and personal use
13 drivers, we'd strongly recommend the fast solicitation and
14 future funding opportunities to support use cases for
15 light-duty fleets, either through dedicated hubs and or
16 allowing hybrid sites that promote both public and fleet
17 cases similar to the CARB solicitation.

18 Thank you so much again for the opportunity to
19 submit public comment and look forward to collaborating on
20 these efforts going forward.

21 MR. TUGGY: Thank you.

22 Next, I will allow Rob Means to talk.

23 So, Rob, go ahead.

24 MR. MEANS: Hi, this is Rob Means representing
25 LoopWorks. We are the company creating an advanced transit

1 system here in Milpitas, California, using personal rapid
2 transit technology. And we've submitted a one-page comment
3 saying you're doing wonderful stuff but there's a whole
4 area of opportunity here with advanced transit technologies
5 that is being overlooked. And I was hoping that someone
6 there would commit to actually taking a serious look at the
7 technology. You can find a lot of background information
8 on our website at milpitasprt.com that will answer most all
9 of your questions and arouse a lot of interest, I am
10 certain.

11 Thank you for your time.

12 MR. TUGGY: Thank you, Rob.

13 As of right now, I don't see any more raised
14 hands, but I'll give folks another minute, I think. Once
15 again, that's star nine to raise your hand if you're on the
16 phone. Any other members of the public who'd like to
17 comment?

18 Alright, I see Piet or Piet, my apologies if I'm
19 pronouncing that. I'm going to let you speak. Go ahead.

20 MR. CANIN: Hello, my name is Piet Canin with
21 Ecology Action. I just want to thank the CEC for this vast
22 investment in electrifying transportation.

23 And I just wanted to address, I can't remember
24 who brought it up, was the public education campaign. You
25 know, and I think it is so important because even though

1 electrification transportation is happening in light-duty
2 sector, there is still misconceptions and misinformation
3 out there. And we know our society is just wrought with
4 that through social media and other communication channels.

5 So I think it's important still to be able to
6 counter that narrative and educate folks on a broad base,
7 also to educate folks again, like we talked about with, you
8 know, how to use chargers, where they are, and how charging
9 can be pretty accessible.

10 And then one last thing is that cars going the
11 speed limit on freeways is a good thing. 65 miles an hour
12 saves lives. There's a crisis of fatalities and major
13 injuries due to collisions on freeways that the federal
14 government is trying to seriously combat. So let's
15 encourage people to drive the speed limit full and safe out
16 there.

17 Thank you very much.

18 MR. TUGGY: Thank you.

19 Commissioner, I'm not seeing any other raised
20 hands. I don't know how much longer you'd like to give
21 this.

22 COMMISSIONER MONAHAN: I think we can -- why
23 don't we turn it over to Patrick then for next steps.

24 MR. BRECHT: Sure. Thank you, Commissioner
25 Monahan.

1 Jana, if you could put the last slide of the
2 slide deck up?

3 Well, what that is going to mention is that,
4 again, the deadline to submit comments, written comments.
5 is May 11th at 5:00 p.m. And we, of course, strongly
6 encourage you -- there it is, thank you -- to submit those
7 comments, and even to take a look at those discussion
8 questions earlier in the presentation. And, again, their
9 presentation is listed on the docket, which I think we
10 provided earlier also in the presentation. So, again, May
11 11th is our cutoff, so please submit comments.

12 And with that --

13 COMMISSIONER MONAHAN: Well, Patrick --

14 MR. BRECHT: I'm sorry?

15 COMMISSIONER MONAHAN: -- can you say a little
16 bit about -- I mean, we have a comment period for this
17 round of the Investment Plan, but we'll be doing another
18 version of the Investment Plan once we know what the final
19 numbers are. And I think we should wait, actually, to have
20 the Advisory Committee meeting, too, until we know what
21 those final numbers are, because it'll make it easier for
22 folks to weigh in on our flexible funding when we know what
23 the fixed funding is, and if we know with the Clean
24 Transportation Program is reauthorized.

25 So please help support reauthorization in the

1 governor's budget. But we do recognize that the
2 legislature can make changes. And we, you know, we need to
3 see what happens in the budget before we finalize the
4 Investment Plan.

5 MR. BRECHT: Right. I think the next version of
6 our Investment Plan would be in September, given that
7 plenty of time, so --

8 COMMISSIONER MONAHAN: Yeah.

9 MR. BRECHT: And we have a timeline that's listed
10 in the presentation if anybody wants to look at that.

11 COMMISSIONER MONAHAN: Great. Well, thanks,
12 Patrick.

13 And thanks everybody for joining. Really
14 appreciate these conversations and appreciate your input.
15 We are listening. We are, you know, planning to make
16 adjustments as needed to really reflect the changes that
17 we're seeing in the market and the barriers that we're
18 facing and the comments that we're receiving and just
19 appreciate all the energy and time that has gone into,
20 well, both on the staff side, you can see the staff has
21 been working hard. There are a lot of different funding
22 opportunities that we're managing now and that we're
23 planning to do going forward, really with an eye towards
24 air quality, equity, accelerating the market and helping
25 the state reach its goals for climate and clean air. So

1 just appreciate everybody's hard work in this space and
2 more to come.

3 And I guess I will adjourn the meeting.

4 (Off the record at 11:48 a.m.)

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CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 10th day of May, 2023.



MARTHA L. NELSON, CERT**367

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I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.



MARTHA L. NELSON, CERT**367

May 10, 2023