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COMMISSIONER WORKSHOP ON PLUG-IN ELECTRIC
VEHICLE CHARGING INFRASTRUCTURE

REMOTE VIA ZOOM

SESSION 1: TUESDAY, AUGUST 4, 2020

10:00 A.M.

Reported by:

Martha Nelson

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APPEARANCES

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P R O C E E D I N G S

10:00 A.M.

TUESDAY, AUGUST 4, 2020

MS. RAITT: Okay. Good morning everybody. Welcome to today's 2020 IEPR Update Commissioner Workshop on Plug-In Electric Vehicle Charging Infrastructure.

I'm Heather Raitt, the Program Manager for the Integrated Energy Policy Report, which we refer to as the IEPR. Today's workshop is being held remotely, consistent with Executive Orders N-25-20 and N-29-20, and the recommendations from the California Department of Public Health, to encourage physical distancing to spread the -- to slow the spread, excuse me, of COVID-19.

Instructions for attending or participating in the meeting were provided in the notice and include both internet and call-in options. The notice is available on the Energy Commission's webpage.

Instead of what we used to have, a normal, full day IEPR Workshop, we have split this topic into four sessions over two days to encourage participation. This morning's session is on engagement and outreach for enhancing

1 charging infrastructure.

2 Session two starts at 2:30 this
3 afternoon, and we'll on charging infrastructure
4 technology and markets.

5 Sessions three and four are on Thursday,
6 and those will address efforts to model and
7 identify infrastructure development needs.

8 These meeting are being recorded. We'll
9 post a recording and written transcript on our
10 website. Also, today's presentations are all
11 available on our website.

12 We're working to make our IEPR Workshops
13 more engaging in this remote environment, and so
14 we'll be conducting a poll today to better
15 identify or understand who's attending the
16 workshop.

17 This morning we'll also be using the Q&A
18 function in Zoom, with the capacity to vote on
19 questions posed by others. So attendees may type
20 questions for panelists by clicking on the Q&A
21 icon. And before typing a question, please check
22 to see if someone else has already posed a
23 similar question and, if so, you can click the
24 thumbs-up to vote on it. And the questions with
25 the most thumbs-up or clicks are uploaded to the

1 top of the list.

2 We'll reserve about five minutes at the
3 end of the panel today for the attendee Q&A. And
4 then so given time restrictions, we're unlikely
5 to elevate all questions received.

6 So now I'll go over how to provide public
7 comments on the materials today. There will be
8 an opportunity for public comments at the end of
9 each session, and we -- so please note that we
10 will not have time for responding to any
11 questions to speakers raised during the public
12 comment period.

13 In Zoom, click the raised-hand icon to
14 let us know you'd like to make a comment. And
15 for those on the phone, press star nine to raise
16 your hand, and we'll open your line during the
17 public comment period.

18 Alternatively, written comments after the
19 workshop are welcome and are due 5:00 p.m. on
20 August 27th. And the meeting notice provides all
21 the detailed instructions for how to submit
22 comments.

23 And then with that, I'll turn it over to
24 Commissioner Monahan for opening remarks.

25 Thank you.

1 COMMISSIONER MONAHAN: Great. Thanks,
2 Heather. The cup of coffee on the opening slide
3 makes me want to go get some more caffeine this
4 morning. But real excited for today's morning
5 workshop and the afternoon one, and the ones on
6 Thursday as well. This is a really important
7 topic. How do we make sure that we are building
8 out charging infrastructure that's going to
9 benefit all communities, and especially low-
10 income and disadvantaged communities, and help
11 California reach its ambitious goals for
12 transportational application.

13 Recently the Air Resources Board passed a
14 new regulation that will require all new trucks
15 to be zero emission by 2045. And we have also
16 ambitious goals around light-duty vehicle
17 electrification as a State.

18 So, this topic of how do we build out the
19 charging infrastructure that's going to benefit
20 everyone, and how do we make sure that we are
21 tailoring our State investments to support long-
22 term decarbonization of the grid and equity
23 simultaneously.

24 So, if you've been -- as just state here,
25 generally any of these IEPR workshops, do you

1 know that equity is a theme that is running
2 through all of the workshops. We really are --
3 have tried to make sure that that, that topic is
4 a core area of exploration. And this morning
5 we'll be doing a deep dive into that topic.

6 So, as Heather noted, the morning session
7 is a mix of basically an evaluation, a draft
8 evaluation of the equity implications at the
9 existing charging infrastructure that's required
10 by SB-1000. And then we're going to have a panel
11 discussion that is actually going to be
12 facilitated by my dear colleague, Pilar
13 Manriquez, who was an executive fellow here at
14 the Energy Commission, and now she's at the
15 Public Utilities Commission. So we're happy that
16 she's joining for -- to moderate this panel.

17 And I see Chair Hochschild is on the
18 virtual Dais. Chair Hochschild, would you like
19 to make any opening remarks?

20 CHAIR HOCHSCHILD: I think you've said
21 everything there is to be said. So, thank you
22 for organizing this and for all your terrific
23 work on this IEPR. I'm looking forward to the
24 discussion.

25 COMMISSIONER MONAHAN: All right. Thank

1 you.

2 And just a heads-up that we -- a few
3 other folks may be joining us on the virtual
4 Dais. We're hoping that Richard Corey from the
5 Air Resources Board, the Executive Director, will
6 be able to join, and fellow CEC Commissioner
7 Karen Douglas. So there may be others on the
8 Dais later in the session.

9 So, Heather, I'll turn it over to you to
10 start the Workshop.

11 MS. RAITT: Great. Thank you,
12 Commissioner.

13 I'd like to introduce our first speaker,
14 Tiffany Hoang. Tiffany is an Air Pollution
15 Specialist at the Electric Vehicle Charging
16 Infrastructure Unit in the Fields and
17 Transportation Division. She works on clean
18 transportation equity-related projects, and is
19 leading Senate Bill 1000 analysis at the CEC.

20 So, go ahead, Tiffany. Thanks.

21 MS. HOANG: Thank you, Heather, and
22 Commissioner Monahan. Good morning everyone. As
23 Heather had mentioned, my name is Tiffany Hoang,
24 and I'm an Air Pollution Specialist in the
25 Electric Vehicle Infrastructure Charging Unit.

1 I'm very excited to be kicking off this
2 workshop today on charging infrastructure. We've
3 got a great group of panelists, and we'll be
4 discussing everything from charging gaps to
5 community engagement outreach, advanced charging
6 technologies and forecasting models.

7 I'll be presenting some of the initial
8 work that we've done under Senate Bill 1000, to
9 evaluate whether charging infrastructure is
10 disproportionately deployed and accessible by
11 community.

12 Next slide, please.

13 I'll start with some background of Senate
14 Bill 1000, present some preliminary findings,
15 summarize the core feedback from our workshop
16 that we held back in June, go through next steps
17 for our assessment, and an answers and question.

18 Next slide, please.

19 As some of you know, we're and continue
20 to see disproportionately higher levels of
21 pollution, much of which in California comes from
22 the transportation sector. Electrifying vehicles
23 can play a big role in reducing transportation
24 emissions. The update though faces several
25 challenges, including high up-front vehicle

1 costs, barriers to home charging, and added range
2 anxiety from gaps in public charging
3 infrastructure.

4 As the EV market grows, it's important
5 that we adequately respond to these barriers, and
6 that we plan and allocate investments so that EV
7 benefits can be realized and shared by all.

8 Senate Bill 1000 was signed in 2018 with
9 the intention to increase charging access to all
10 California communities. SB-1000 directs the
11 California Energy Commission to annually assess
12 light-duty charging infrastructure, and identify
13 whether infrastructure deployment, including
14 distribution access, may be disproportionate
15 across geography, population density and
16 population income levels, including low, middle,
17 and high-income level.

18 Results from annual assessments may
19 inform how future CEC clean transportation
20 program investments are allocated and will be
21 joined with charging infrastructure modeling
22 efforts at the CEC to inform infrastructure
23 deployment that meets both equity and market
24 uptake rules.

25 Next slide, please.

1 So far we've looked at the distribution
2 of public-level 2 and DC Fast charging
3 infrastructure by geographical area, population
4 density and population income level. These maps
5 show a distribution of public DC Fast and Level 2
6 charging stations combined, and where PEV density
7 and residential population density are the
8 highest and lowest by county.

9 As shown by the map to your left, PEV
10 uptake its highest in San Francisco, Orange,
11 Alameda, Santa Clara, San Mateo and Los Angeles
12 County, and appears to be growing in the counties
13 designed the high uptick area.

14 Counties with high PEV uptake also have
15 higher residential population density. If you
16 compare these maps to the one in the middle
17 showing the distribution of stations, you'll see
18 that more public chargers appear to be deployed
19 along interstate highways, and generally and
20 counties with PEV and population density are
21 higher.

22 We found that although San Francisco
23 County has the highest population in PEV density
24 of all California counties, it has about the 10th
25 number of Public Level 2 and DC Fast chargers

1 combined in L.A. County, which has the most
2 chargers, public chargers in California.

3 Next slide, please.

4 To provide a more meaningful measure of
5 density levels, we've taken a more granular
6 approach where we've Census Tract population
7 density to evaluate charger distribution. A
8 plotted charging port distribution, shown here on
9 the vertical axis, by Census Tract population
10 density, shown on a horizontal axis, and persons
11 per square mile, and in doing this you find that
12 fewer Public Level 2 and DC Fast charging ports
13 are distributed in high residential population
14 density Census Tracts.

15 Charging ports here refer to the number
16 of EV's that can charge a single electric vehicle
17 supply equipment at once, regardless of the
18 number connectors on the EVSE.

19 And I point out that each of these points
20 here on the chart represents the individual
21 Census Tract in California, and the corresponding
22 population density within that Census Tract, as
23 well as the charging ports deployed in that
24 Census Tract.

25 Census Tract area and land use appear to

1 contribute largely to what we see here in this
2 chart. Census Tracts with large population
3 density, to the point along the far right in the
4 chart, are smaller tracts of mainly dense, urban
5 residential land use. So, for example, that
6 point at the end represents the Census Tract in
7 San Francisco County that is mostly residential
8 and dense.

9 Although public charging infrastructure
10 is absent or low in these densely populated
11 tracts, charging availability is generally high
12 in nearby tracts containing or close to primary
13 roads and points of interest.

14 Census Tracts with fewer people per
15 square mile and higher charger distribution
16 through the points along the left in the chart,
17 generally have airports or large retail and
18 office space, most likely have more convenient,
19 long-term parking opportunities per vehicle
20 charging, which would make them more attractive
21 for station siting.

22 Next slide, please.

23 Based on that show distribution of public
24 DC Fast and Level 2 charging station,
25 innovation through growth and where low-income

1 community Census Tracts are. DC Fast charging
2 stations are shown on the left in yellow, and the
3 Level 2 stations are shown on the right in green.

4 Low-income community Census Tracts are
5 Census Tracts with median household income at or
6 below 80-percent of the statewide median income,
7 or with median household income at or below the
8 threshold as needed as low-income by the
9 Department of Housing and Community Development,
10 the HCD, with a state income limit. These state
11 income limits are determined using county median
12 household incomes.

13 About 50-percent of all Public Level 2
14 chargers, and 53-percent of all public DC Fast
15 chargers in the state are deployed in low-income
16 community Census Tracts.

17 In the Bay Area, Los Angeles County,
18 Orange, and San Diego County, their charger
19 deployment in the state is the highest, about 50-
20 percent of those chargers are within low-income
21 Census Tract communities.

22 Next slide, please.

23 In the previous slide I mentioned that
24 generally we see more chargers being deployed in
25 low-income communities Census Tracts than in

1 middle- or high-income communities. But when we
2 look at chargers distributed across these income
3 levels per capita, we see a different story.

4 This chart here shows the number of
5 Public Level 2 and DC Fast charging ports per
6 100,000 people across the three income levels
7 we've defined using state and county median
8 household income. What we found was that
9 combined, lower income communities have the
10 fewest public charging ports distributed per
11 capita, with 52 ports, versus 70 per capita in
12 middle-income communities, and 73 per capita in
13 high-income communities.

14 This modest correlation is also true when
15 we consider Public Level 2 ports independently.
16 However, we see that high-income communities have
17 the fewest DC Fast charging ports per capita, and
18 that middle-income communities have most.

19 So overall the correlation we see between
20 income level and per capita Public Level 2 and DC
21 Fast charging infrastructure appears modest.

22 Next slide, please.

23 Our analysis so far evaluates state
24 distribution of chargers across market segments
25 at a high level. We look to see whether there

1 were any trends or correlations in charger
2 distribution across geographies, population
3 densities and income level. And overall, we
4 found that chargers are co-located with
5 population and PEV registration. That land use
6 likely can vary charger deployment in Census
7 Tracts that have high population densities, and
8 that there appears to be a modest correlation
9 between income and charger deployment.

10 These are all preliminary findings that
11 bring us closer to identifying whether chargers
12 maybe disproportionately deployed throughout the
13 state.

14 We had a public workshop back in June to
15 solicit stakeholder feedback on our preliminary
16 analysis. In response to stakeholder feedback,
17 we're working on identifying and analyzing
18 housing spot data, including multi-unit dwelling
19 concentration, renter percentage and income, so
20 that we can see where public charging
21 infrastructure deployment can potentially fill
22 gaps where residential charging maybe lacking.

23 We've also started looking at land use to
24 identify where people live and are likely to
25 charge, and to also assess where makes the most

1 sense to evaluate infrastructure deployment in
2 proportionality by geography, population density
3 and income level.

4 So for example, we may see fewer charging
5 opportunities and for low-income or low-
6 population density Census Tracts, but that could
7 due to land cover or zoning or roads within those
8 tracts that make station siting infeasible.

9 We're continuing to work with
10 stakeholders in communities to identify key
11 charging access indicators and metrics. Most of
12 our analysis so far, as I mentioned, has focused
13 around the distribution of chargers across
14 geographies, densities and income level. And we
15 understand that distribution and access, that
16 should be evaluated differently since they're
17 separate things.

18 For example, a large Census Tract may
19 have many chargers within its boundaries, but due
20 to the road network or to travel behavior, these
21 chargers may be inaccessible, or at least
22 inconvenient for some of their residents in the
23 Census Tract that own plug-in electric vehicles.

24 In this same manner, a small Census
25 Tracts may have no chargers within its

1 boundaries, but there may be a number of public
2 charging opportunities just outside of its
3 boundaries, that are convenient for some
4 residential PEV drivers.

5 So looking only at charger distribution
6 will not give us a full picture of a driver's
7 ability to benefit from stations. We also
8 understand that each low-income community is
9 different, and that their mobility needs will
10 differ, in part due to their unique fill
11 environment.

12 We're also continuing to assess what
13 disproportionate may look like across
14 geographies, densities and income level. We are
15 working on completing the first, first report for
16 this assessment, which will discuss the
17 preliminary findings we've presented here today
18 and our plans for future analyses.

19 So if you recall, we'll be working on
20 this analysis every year. And we're looking to
21 publish this report in the fall. This report
22 will be included as an appendix to CEC Clean
23 Transportation Program Investment Plan, and to
24 802127 staff report on charging infrastructure
25 that includes supporting hardware and software

1 unit for all vehicle categories to support
2 widespread transportation electrification.

3 We understand the importance of
4 prioritizing the mobility needs of historically
5 underserved communities. These annual
6 assessments bring transportation equity to the
7 forefront, and have the potential to impact
8 allocations of clean transportation program
9 investments that we can better serve all
10 communities.

11 Next slide, please.

12 This brings me to the end of my
13 presentation. I provided my contact information
14 here for folks who may be interested in learning
15 more about this assessment. Always happy to chat
16 and gather other folks input. Thanks everyone.

17 (Pause.)

18 MS. RAITT: You're muted --

19 MS. HOANG: Commissioner Monahan, I think
20 you're muted.

21 COMMISSIONER MONAHAN: Sorry. That was a
22 basic new mistake. And so, Chair Hochschild, if
23 you are -- if you have any questions, I encourage
24 you to just come on the video and unmute
25 yourself. Don't, don't follow my lead.

1 CHAIR HOCHSCHILD: No questions. Thank
2 you.

3 COMMISSIONER MONAHAN: Tiffany, that was
4 a really great presentation. Thank you. And
5 we've talked about this before, this analysis
6 before, but I had a question that I haven't asked
7 you before. And I'm afraid I'm -- you probably,
8 you may not have the answer to this. But this
9 this issue around land use and density, and the
10 fact that in some of the places that are the most
11 dense, there may be land-use restrictions why we
12 can't have chargers easily placed there.

13 I'm wondering, do we have data on
14 refueling stations, like professional internal
15 combustion engine refueling stations, and the
16 density that exists in -- across the state of
17 those facilities?

18 MS. HOANG: Yeah. That's actually
19 something that we have it, but I didn't use that
20 for this analysis. That would certainly be
21 interesting to look at how those stations have
22 been deployed and in the land use around those
23 stations.

24 COMMISSIONER MONAHAN: Yeah, it might
25 just provide an indication of -- if there really

1 is a land use barrier --

2 MS. HOANG: Uh-huh.

3 COMMISSIONER MONAHAN: -- that it
4 probably would be reflected, although, I mean
5 there's been hundreds of years to overcome those
6 barriers, trying to overcome the various
7 transportation electrification in basically a
8 decade. So, we're talking about a very different
9 scale of change in, in this in this sector.

10 I'm also wondering about the distinction
11 between DC Fast charging and Level 2 when it
12 comes to equity. Are there any, are there any
13 findings that you're exploring, you and the team
14 are exploring around whether there's equity
15 implications on the DC Fast charging, vis-à-vis,
16 Level 2 charging access?

17 MS. HOANG: Yeah. So that's, that's a
18 great point. And one of the key components of
19 access that does -- that Senate Bill 1000
20 specifically addresses is charging fees as a
21 critical component of access. Which is why, you
22 know, we're looking at both Levels 2 and DC Fast
23 charging ports and looking at the distribution
24 independently of the two.

25 So certainly think that, you know, there,

1 there are ways to explore that further. And
2 something else that we're looking at is connector
3 types available on Level 2 and DC Fast charging
4 ports, to see, as you know, the vehicles that are
5 being adopted. But then we felt in continued use
6 would be compatible with those connector types.
7 And so those connector types do differ between
8 Level 2 and DC Fast charging station.

9 COMMISSIONER MONAHAN: Uh-huh.

10 MS. HOANG: And so that's something that
11 we're continuing to address.

12 COMMISSIONER MONAHAN: Great. Well
13 that's it for my questions. We've had, we've had
14 a number of different conversations about this,
15 and I'm very excited to get to the finish line on
16 this analysis. I think it's really an important
17 platform on which we will be building our, our
18 California Electric Vehicle Infrastructure
19 Program and other investments across the state,
20 as we really figure out how do we tailor our
21 investments to support equitable distribution and
22 access of electric transportation.

23 So thank you, Tiffany. That was a really
24 great presentation.

25 MS. HOANG: Thank you.

1 COMMISSIONER MONAHAN: Heather, can I
2 turn it back over to you --

3 MS. RAITT: Sure.

4 COMMISSIONER MONAHAN: -- to kick of the
5 panel?

6 MS. RAITT: Sure. Yeah. And I'll just
7 echo, thanks again, Tiffany.

8 And but before we do move to the panel.
9 I'd like to launch a quick poll. Just wanted to
10 get a sense of who is in our audience today. Some
11 of you may have done this poll prior. If you
12 could just take a few moments to go through that
13 list and select what is closest to matching who
14 you're representing today, or if you're
15 representing yourself. We'll just give it about
16 10 more seconds.

17 Alright, we've got a pretty good
18 representation. We can go ahead and close it.

19 Right. Well, so mostly it looks like
20 we've got governmental organizations, but we do
21 have a pretty varied selection of different kind
22 of representation. So thank you so much for
23 everybody who participated in that. And it looks
24 like we actually got almost, we got about 65-
25 percent of the people participating, so that's

1 great.

2 Alright. So next we'll move on to our
3 panel. It's a panel discussion on Engaging
4 Communities for Charging Infrastructure Needs,
5 and it's being moderated by Pilar Manriquez from
6 -- who was formerly an executive fellow to
7 Commissioner Monahan, and now is an assistant
8 chief of staff to Commissioner Guzman at the
9 CPUC.

10 We also have Jonathan Bobadilla who's
11 going to be helping moderate the Q&A from
12 attendees. And as I had mentioned earlier, you
13 can go ahead if you have questions for the
14 panelists, you can type in questions there.

15 So, go ahead. Thank you, Pilar. Go
16 ahead and take it away.

17 MS. MANRIQUEZ: Thank you, Heather.

18 Hi, good morning, everyone. Nice to see
19 everyone here, Commissioner Monahan, Chair, thank
20 you for joining us this morning.

21 I wanted to welcome everyone to the engagement
22 and outreach for enhancing Charging
23 Infrastructure Workshop. As your moderator
24 today, I'm really excited to have several
25 panelists that engage in environmental justice,

1 local government, and/or have previously done
2 charging infrastructure work.

3 So our panelists today include Jin Zhu
4 from Center for Sustainable Energy. We have Tara
5 Lynn Gray from Fresno Metro Black Chamber of
6 Commerce, Linda Urata from San Joaquin Valley
7 Clean Cities Coalition, and Enid Joffe from the
8 Green Paradigm Consulting. We hope that today's
9 panel can provide further insight on how to
10 engage with local communities, including
11 disadvantaged communities and low-income
12 communities as well.

13 Community Engagement is critical when
14 ensuring that these communities that are impacted
15 the most by bad air quality are the first to
16 benefit from clean air, clean jobs and further
17 accelerate the adoption and benefits of easing
18 these and charging infrastructure.

19 So we're going to go ahead and start with
20 our first panelist, and this will be Jin Zhu.
21 Jin Zhu is currently a manager on the Clean
22 Vehicle Rebate Project. He is a part of the
23 equity team and leads a team of six equity
24 specialists across California focusing on
25 outreach and education to California

1 disadvantaged communities. He started with the
2 CFE as an equity specialist himself, and his
3 outreach territory fans from Fresno all the way
4 to the Oregon border.

5 This role offered him the opportunity to
6 interact with many different communities and gave
7 him firsthand knowledge of the problems that our
8 communities of concern are still facing today,

9 Jin, go ahead, take it away.

10 MR. ZHU: Thank you, Pilar, for the
11 wonderful introduction. And of course, a thank
12 you to Commissioner Monahan, Chair, Vice Chair,
13 and all the CEC staff for having me as a panelist
14 today.

15 Again, my name is Jin Zhu, and I work for
16 Center for Sustainable Energy. We are a
17 nonprofit organization headquartered in San
18 Diego, with remote offices in Sacramento,
19 Oakland, Fresno, L.A., Boston, and I believe in
20 New York as well.

21 Next slide, please.

22 As Pilar mentioned earlier, I was a
23 equity specialist doing outreach to disadvantaged
24 communities and our team focused on -- focuses on
25 that. We use CalEnviroScreen as a guideline to

1 identify these disadvantaged communities.

2 As you can see in the picture that's on
3 the top left, CalEnviroScreen takes account 20
4 different indicators, including exposure to
5 pollutants and social economic factors, and give
6 each Census Tract a score . The darker shade of
7 orange and red are what we consider a
8 disadvantaged community. Our multilingual staff
9 attends community events and do presentation in
10 those communities in those are darker shaded
11 areas.

12 As you can see from the two pictures, our
13 events, community events are pretty simple.
14 We're bringing a, we bring the banner, we bring
15 our whole setup engaging folks that way, but also
16 do presentations as well. We actually work with
17 our local community-based organization partners,
18 more than later, CVO's are what we're all about.
19 And we also work with community leaders to find
20 different presentation opportunities. We have
21 presented at different faith-based organization,
22 workplace lunch and learns, and various community
23 workshops.

24 One thing to know is that even though we
25 represent CVRP, but while we're on the field we

1 mentioned all the different EV incentives that
2 also stacks with CVRP and also locally available.

3 For instance, we will talk about the
4 Clean Vehicle Assistance Program, all the
5 different clean cars, all programs, such as
6 Replace Your Ride, Drive clean in San Joaquin,
7 and the one they just recently launched in the
8 Bay Area. And there's also Air District program
9 in two of these programs.

10 We understand that not everybody that we
11 talk to is ready for an electric vehicle that day
12 or even six from -- six months from now, even,
13 you know -- but what we want to make sure they
14 understand the takeaway from our engagement with
15 them, is that electric vehicle is indeed an
16 affordable option, even though not for now, maybe
17 for the future.

18 The last few picture represents actually
19 something that we do as another engagement tool,
20 which is a free electric vehicle test drive. We
21 work with the local dealerships to bring all of
22 these different vehicles, electric vehicles,
23 plug-in hybrids, into the community. We actually
24 have done quite a few of these. And from what we
25 can gather is that a lot of test drivers has two

1 things in common. One is that it's the first
2 time inside either an electric vehicle or plug-in
3 hybrid. And second is that they're always
4 surprised by how fun and how quiet an EV can be.

5 We feel like giving the community members
6 a firsthand experience on electric vehicles
7 dispels a lot of different myth and amongst --
8 misconception and regarding electric vehicles.

9 Next slide please.

10 Okay. So community-based organizations.
11 That's what I mostly want to focus on today. Is
12 one thing that's for certain is that there's a
13 lot of different disadvantaged communities in
14 California, and each has its own very unique
15 needs and challenges. And most importantly, is
16 that to a lot these communities trust is actually
17 earned and not give.

18 These community trust their own. They
19 trust the folks that live in the community, are
20 working for the community. And the community-
21 based organizations serve exactly that purpose.
22 They are the trusted resource of the committee
23 members. That's why working with the CVO is one
24 of our key outreach strategies into disadvantaged
25 communities.

1 As you can see from the graph on the
2 right-hand side, we currently have 23 different
3 CVO's under our CVRP community partner network.
4 I believe that there is two that's underway.
5 It's constantly growing.

6 Our CVO partners are from the community
7 and they live in the community that they serve.
8 They truly understand what the needs are -- is.
9 Our six equity specialists and I also serve as
10 CVO case managers. What that means that we work
11 with our CVO's on the daily basis, provide them
12 with all the different multilingual collateral
13 that they need, an auto multilingual presentation
14 that they need in order for them to be more
15 effective out on the field doing presentations
16 and community events.

17 We also use our CVO partners -- we see
18 them as a true partnership. We learn from each
19 other, and we also improve our each other's
20 outreach methods. The community we serve are so
21 different. There is actually no cookie-cutter
22 solution, right. There's no one-size-fit-all
23 solution.

24 We take our feedback from our CVO
25 partners seriously, and also have also

1 implemented some of the changes that they're
2 recommended, whether it's on collateral, whether
3 it's on presentations, whether it's on some of
4 our talking tracks that we use while we're on the
5 field. CVO feedback is very important to us and
6 then we take that very seriously.

7 And next slide, please.

8 The last slide I would like to briefly
9 share is actually on what the Commissioner
10 mentioned earlier, the California Electric
11 Vehicle Infrastructure Project, as what we call
12 it, CALeVIP. This is a statewide charging
13 program implemented on a regional basis, with
14 different local partners who can provide
15 additional funding and support, and also
16 sometimes marketing and outreach support. CEC
17 implements CALeVIP on behalf of the California
18 Energy Commission.

19 Currently, CALeVIP projects are all, are
20 oversubscribed, and that the metaphor incentives
21 clearly sets the availability of funding.

22 As you can see from the graph, over
23 \$72,000,000 worth of rebates has been reserved,
24 and it's over 72 -- 7,700 -- 4,700 stations has
25 been funded. Forty-percent of those actually are

1 actually in the DAC. CEC and some our funding
2 partners are focusing on increasing marketing,
3 education, outreach and technical assistance, as
4 well as future of -- and well events of these
5 future events.

6 We're working with our CVOs, trying to
7 figure out where exactly the -- where exactly the
8 chargers are needed, where exactly those place
9 should be put, and also including MUD's,
10 affordable housing, small to medium businesses
11 are some of the, our targeted populations.

12 Conducting community outreach in advance
13 to file at these programs is actually very
14 important, and it will be crucial to ensure DAC
15 charging infrastructure success.

16 Next slide, please.

17 That wraps up about -- that wraps up my,
18 about my presentation. Again, I would like to
19 thank everybody for this opportunities, and I --
20 my e-mail is on the slide. So you guys have any
21 questions, please reach out.

22 Thank you.

23 MS. MANRIQUEZ: Thank you, John. I
24 appreciate that.

25 Next we have Tara Lynn Gray, who is the

1 Chief Executive Officer of the Fresno Metro Black
2 Chamber of Commerce.

3 Tara has been engaging, educating and
4 empowering small businesses in California Central
5 Valley. She has been instrumental in the design
6 and development of one of the most groundbreaking
7 mobility programs in the country. She has
8 leveraged the clean economy to advance equity,
9 development of youth employment, and manages a
10 network of organizations working to advance
11 electric vehicle awareness in Fresno, Tulare and
12 Kern County.

13 Welcome, Tara. Go ahead and take it
14 away.

15 MS. GRAY: Good morning everyone, and
16 thank you, Pilar, thank you Commissioner Monahan,
17 Chair, Vice Chair and CEC staff for having me as
18 a panelist today.

19 Again, my name is Tara Lynn Gray. I am
20 the Chief Executive Officer of the Fresno Metro
21 Black Chamber of Commerce and Chamber Foundation,
22 where we engage, educate and empower Black-owned
23 businesses.

24 While we run several programs through the
25 Chamber and Chamber Foundation, my presentation

1 today will really look at our Green Team
2 programs.

3 Next slide, please.

4 Our Green Team started back in 2016 with
5 a membership in the California Green Business
6 Network, where we set out to certify small
7 businesses as green businesses and teach
8 sustainability practices, really as a way to
9 enhance businesses, to enhance their bottom line.
10 We followed that with an energy upgrade
11 California outreach and education project, and
12 really that was the beginnings of our
13 environmental justice and advocacy.

14 Having fully embraced and adopted
15 sustainability, environmental justice and
16 economic mobility as core values in the
17 organization and strategic plan pillars, we began
18 pursuing opportunities that would allow us to
19 bring those to fruition and our core
20 neighborhoods.

21 And what you see here on this slide is
22 how we bring that education in these areas to all
23 of our events. This is a photo pop-up at our
24 annual business salute to Dr. Martin Luther King.
25 And we provide the cards as prompts for our

1 guests to talk about these issues and to take
2 photos and videos around these topics.

3 Next slide, please.

4 In 2017 we applied for and received a
5 Transformative Climate Communities Grant to
6 implement our clean shared mobility network,
7 comprised of an all-electric vehicle rideshare,
8 car share, van pool, active transportation,
9 including e-bikes and electric vehicle charging
10 infrastructure. This project is currently
11 underway, and we've installed approximately 50
12 chargers to date, with a mix of Level 2 and DC
13 Fast chargers.

14 We are a network of partners, as you can
15 see on the right hand of the slide, and they're
16 lead by my organization. We have some of the
17 foremost minds in shared mobility and active
18 transportation on our team.

19 We are preparing to roll out our e-bikes,
20 looking at the end of this year or early 2021.
21 Some of the key elements of our project are
22 considerations for the end banks and under-banked
23 residents in our community, where we have built a
24 subsidy from the Fresno Housing Authority for
25 residents to get access to the network for low

1 and no-cost options, and we are establishing a
2 mobility center for unbanked residents to be able
3 to connect with us, get an orientation on the
4 network, and gain access to the network through
5 alternate system. So, those that don't have
6 credit cards will still have access to the
7 system.

8 Next slide, please.

9 Furthering our commitment to electric
10 vehicles, we pursued an EV marketing and uptake
11 in San Joaquin Valley, Shared Mobility Systems
12 Project through CEC. And this, too, is a network
13 of partners with shared mobility systems, our
14 Clean Shared Mobility Network, Valley Go and
15 Miocar, all doing outreach and education around
16 electric vehicles and informing residents in the
17 three counties about all of the programs that can
18 help make EV's more affordable for our residents.

19 Now clearly, COVID-19 pandemic has put a
20 dent in our ability to hold events like the one
21 you see in the photos with Miocar, but we are
22 looking forward to the day soon, hopefully,
23 maybe, that we will be able to resume these kinds
24 of activities.

25 Next slide, please.

1 Embedded in our work are two key goals.
2 First is to create job opportunities for
3 residents, and second is to create business
4 opportunities for our members. In 2018 we
5 developed the Green Team Youth Ambassadors
6 Program, and this program provide job training
7 and paid work experience for young adults 18 to
8 24 years old.

9 And the photos here are from our 2019
10 cohort that did rotations and Kool Breeze solar
11 hats, which is a solar manufacturing business.
12 And Scrub Can, a janitorial and outdoor cleaning
13 services, that uses purple water and a
14 proprietary process. And then our FMBCC
15 PurpleAir sensor network deployment.

16 The young adults in this program get a
17 mix of classroom training and on-the-job training
18 to round out their experience. And we are
19 fortunate enough to be able to re-up this program
20 again in 2020 through a partnership with Tree
21 Fresno. So this initial Grant was funded through
22 CALEPA.

23 Next slide, please.

24 This slide is another of our young adults
25 at Scrub Can learning about their truck in the

1 reclaimed water process in usage.

2 Next slide.

3 Again we weave sustainability and
4 environmental justice into all of our programs.
5 So the photo on the top left is our ProHer
6 Women's Program. We have an annual women of
7 color business Symposium. And in 2019 and we had
8 a great marketplace activity, and this past year
9 we did Tesla test rides, which were extremely
10 popular, and for so many it was the first time
11 that they had been able to even get in a Tesla,
12 let alone ride around in it. So very, very
13 popular.

14 Bottom right is a workshop on trauma in
15 communities of color, and we focused on trauma
16 caused by social, environmental and economic
17 stressors.

18 Next slide, please.

19 On this slide is photos of chargers that
20 were recently installed at the Fresno Housing
21 Authority last month. We are very excited about
22 not only getting our, our residents exposed to EV
23 use and putting up the charging infrastructure,
24 but we are meeting our core goals.

25 We have a member business, Imperial

1 Electric Service, that really has become the
2 premier installer of chargers in our community,
3 and has installed, like I said earlier, more than
4 50 chargers. And it's just special to us to be
5 able to really culminate all of our programs and
6 all of the desire that we have for small business
7 -- businesses, excuse me, into these programs.

8 So we've met our goals by utilizing one
9 of our small businesses and being able to create
10 jobs for community members.

11 Last -- next and last slide is my contact
12 information, so you can feel free to reach out if
13 you have any follow-up questions for me.

14 Thank you.

15 MS. MANRIQUEZ: Thank you, Tara.

16 Next we have Linda Urata, who's a
17 regional planner and wears many hats. She is
18 also serving as Kern Council of Governments
19 Coordinator, and from Joaquin Valley, Clean
20 Cities Coalition.

21 She's a graduate of UCLA and joined Kern
22 Council of Governments in 2006, serving as Ride
23 Share Coordinator. Then she joined Current
24 Energy Watch Partnership Coordinator, and today
25 she writes grants and oversees programs

1 supporting electric vehicle and infrastructure
2 deployment, and organizes the Transitions Annual
3 Transit Symposium.

4 In 2019 Linda was the project manager for
5 the current Regional EV Charging Stations
6 blueprint development and leads implementation
7 efforts.

8 Welcome, Linda. Hi, Linda. I think
9 you're muted.

10 MS. URATA: Now, can you hear me?

11 MS. MANRIQUEZ: Yes.

12 MS. URATA: Okay, great. Let's start
13 over.

14 I really want to thank Commissioner
15 Monahan, the Chair, Vice Chair and CEC staff for
16 inviting me as a panelist. As you know, my name
17 is Linda Urata. I'm a Regional Planner at Kern
18 Council of Governments, or Kern COG. I'm also a
19 volunteer San Joaquin Valley Clean Cities
20 Coordinator, which is a United States Department
21 of Energy Program, and I've been working in the
22 outfield space for 28 years. The San Joaquin
23 Valley was probably the birthplace of electric
24 innovations that include the electric school bus.

25 The CEC IEPR Workshop provides the

1 opportunity to understand the hopes for and
2 barriers to EV adoption in our disadvantaged
3 communities in the Central Valley. Their hopes
4 are for clean air for improved human health, the
5 environment, and air quality and conformity. The
6 public wants safe, flexible, reliable and
7 affordable transportation.

8 We have economic development dreams that
9 include local, well-paying steady jobs for today
10 and future generations, greater investment in the
11 region by EV industry private companies, and the
12 growing solar generation market.

13 So these operators seek confidence in the
14 technology and the ability to comply with
15 regulations without too much strain on their
16 capital, and confidence in their technology is
17 important.

18 Public transportation and T's and C-type
19 services desire sustainable operations that serve
20 the public safely and efficiently.

21 Transportation planners seek to prepare for a
22 future that includes autonomous vehicles, V2G and
23 connected vehicle technology.

24 The barriers are many and often specific
25 to a location, industry, agency or person. These

1 include older electric infrastructure,
2 transformers panels, transmission lines, that is
3 expensive and takes time to update.

4 I have encountered a very few people
5 hostile to EV's, believing that they will
6 undermine their freedoms or the energy economy in
7 the region, but I've also encountered individuals
8 outside of the San Joaquin Valley who think of
9 the region as poor, uneducated and unaware of how
10 to deploy technologies in the valley. Both lines
11 of thought of hindrances to advancing programs in
12 the region.

13 There is a lack of vehicles on dealership
14 lots. There are no dealerships in eastern Kern
15 County that carry EV's. Salespeople cannot sell
16 their cars when they're at an event, so we pay to
17 have dealerships attend community events, which
18 can be 40 miles or more away from the dealership.

19 My slides are tipping.

20 Lack of capacity to apply for funding and
21 manage projects exist. Funding agencies used to
22 award grants to consultants outside the valley,
23 and that does not build capacity in the region.
24 And today, Jin mentioned partnering with CVO's,
25 and that's a good step.

1 These consultants spend time, or used to
2 at least to have to have someone to come to the
3 area, and there's no local staff that would also
4 help with everyday conversations or community
5 engagement, that is packaging or messages to
6 target audiences that mainly are developing
7 relationships and trust.

8 The lack of capacity also affects the
9 region's ability to attend meetings in person in
10 Sacramento, to represent an advocate for our
11 region. Capacity issues also diminish our
12 ability to respond to comments, e-filings or
13 policy development. Timeliness of awards and
14 contracting delays or working through specific
15 issues, such as the division of the state
16 architect process for public schools, can delay
17 or kill projects.

18 I appreciate your inviting us to speak
19 with you today. I would tell you more about Kern
20 COG colleague and our public engagement with
21 regards to EV transportation planning.

22 So, yeah, let's stay on the side for a
23 second. Kern College provides the form that
24 brings mayors, city council members and county
25 supervisors together to work on regional issues

1 in a setting that promotes the involvement of the
2 public in the planning process for the current
3 region.

4 Next slide.

5 There you go. The County of Kern covers
6 over 8,000 square miles with a diverse geography,
7 which impacts transportation needs, as do commute
8 to AG, group movement and energy operations.

9 There are two major airbases, the San
10 Joaquin Valley and East Kern, and three major
11 utilities, which impacts EV rebates and
12 incentives or developing a program for the entire
13 county.

14 This CAEnviroScreen map shows that our
15 county is predominantly disadvantaged
16 communities. Representatives to our board and
17 staff committees often reflect the needs of the
18 DAC's. Environmental justice and social justice
19 groups participate as members of the public. And
20 you can see from this list that Kern COG uses a
21 variety of methods to engage with the public.
22 Environmental social justice group
23 representatives frequently attend our monthly
24 meetings and participate in the roundtables.

25 Next slide.

1 I'm the lead on the Mobility Innovations
2 Program which overlaps and integrates with other
3 Kern COG programs. These programs offer
4 opportunities for public engagement around EV's
5 as well. Here are some examples.

6 The CommuteKern rideshare program assists
7 employers to comply with the valley air district
8 e-trip rule, which includes points for employers
9 to establish charging stations.

10 Our transit partners operate city Dial-A-
11 Ride programs, inter-regional transit and
12 Metropolitan Transit that are moving toward
13 electric shuttles, full-sized buses and apps to
14 schedule trip.

15 For more than five years, the City of
16 Shafter has operated four 100-percent electric
17 shuttles. GET Bus is already 100-percent C and G
18 and has secured funding for purchases of battery-
19 electric and fuel cell buses.

20 At Kern COG the CommuteKern and transit
21 planners and I work with UC Davis and other
22 partners to establish and promote MioCar, funded
23 with a grant from the California Air Resources
24 Board.

25 MioCar places EV charging stations and

1 EV's at low-income housing in Kern and Tulare
2 Counties to be used for hourly or daily rental.
3 They plan to enter into a TNC Program in the
4 coming year and to expand to other locations.

5 Kern COG purchases grant finder software
6 licenses for our member agencies. We also
7 provide technical support on grants. Passionate
8 people working in local government are advancing
9 EV's.

10 For example, one year the only Low-No
11 Federal Grant awarded in California was for a
12 Proterra Catalyst bus in the City of Arvin. And
13 other grant writers secured CMAQ funds for EV
14 stations in McFarland. Similar activities occur
15 in many, if not all of our cities.

16 Next -- I'm all out of slides.

17 As you can see, Kern COG has a robust
18 program to advance clean fuels, including
19 battery-electric and fuel cell vehicles. And I'm
20 especially proud of the workshops and transit
21 symposium.

22 The 2019 Kern EV Charging Station
23 Blueprint was funded with a grant from the CEC. I
24 enjoyed working with Brian Campbell (phonetic).
25 You may find this on our website KernCOG.org

1 Kern COG partnered with the Center for
2 Sustainable Energy. We established a work group
3 to continue -- contribute to the plan
4 development, inviting participation from EV
5 enthusiasts, environmental justice organizations,
6 member agencies, staff and others.

7 The team at CSE used a scoring matrix to
8 identify several hundred potential sites in the
9 County of Kern. Kern COG Technical Advisory
10 Committee and the blueprint working group both
11 proposed locations and looked at these lists
12 prior to finalization of the document.

13 This not only helps us understand the
14 locations, but gave planners the opportunity to
15 learn where this growth may occur. If we are
16 successful in securing implementation funding,
17 part of our project will be to contact these site
18 owners directly.

19 And then the blueprint identifies high-
20 impact sites for EV charging in each of our 12-
21 member agency communities. And we've created on-
22 line toolkits for workplace destination, public
23 institution, MUD's, fleets and community-benefit
24 organizations.

25 Workplace chargers still provides the

1 best opportunity we think in our region, and we
2 are committed to seeing that ADA needs are met.
3 I work closely with both air districts in our
4 county, nonprofits and other MPO's in the valley
5 and state. The Valley Air District has the best
6 incentive programs. Now we can tune in and tune
7 up with the EFMP, Enhanced Fleet Modernization
8 Plus-Up Program, conduct stellar outreach.

9 Project Clean Air manages the Clean
10 Cities Coalition and the EV Partnership for the
11 San Joaquin Valley. They've created and
12 distributed toolkits for dealership sales teams.

13 I think that's it. My time's up. I just
14 want to thank the CEC for a willingness to hear
15 from Central Valley directly about the barriers
16 and opportunities, and I hope this provides a
17 snapshot of local governments rising to the
18 opportunity.

19 Thank you for your time.

20 MS. MANRIQUEZ: Thank you, Linda. We
21 appreciate it.

22 So next we have Enid Joffe. Enid is the
23 President of the Green Paradigm Consulting. And
24 from December of 2019 she was the President of
25 the Clean Fuel Connection, one of the first EV

1 charging infrastructure companies in the US.

2 Enid has over 25 years of experience in
3 transportation electrification, but she is most
4 proud of her current role as a contractor in the
5 South Coast, AQMD's Replace your Ride Program, a
6 program that incentivizes low-income drivers to
7 replace high-emission vehicles with clean, low-
8 emission vehicles.

9 Go ahead and take it away, Enid.

10 MS. JOFFE: Thank you. Thank you.

11 Thank you, Commissioner Monaghan, Chair,
12 Vice Chair, and the CEC staff for inviting me to
13 be a panelist. My name is Enid Joffe, and I'm
14 President of Green Paradigm Consultants.

15 Next slide, please.

16 In my years in the field of electric
17 vehicle charging infrastructure, I can say I've
18 been responsible for the installation of over
19 10,000 charging stations. So today I'll be
20 speaking about some of the challenges and
21 opportunities around marketing EV's and providing
22 charging infrastructure in low-income
23 communities.

24 Next slide, please.

25 My remarks are based on my two decades as

1 the owner of an EV infrastructure company, as
2 well as my experience with a contractor with the
3 Replace Your Ride Program of the South Coast Air
4 Quality Management District.

5 Also, as a former Mayor and Planning,
6 Commissioner, I will share some insight into what
7 local communities can do to increase EV charging
8 availability. And I really love Tiffany's
9 presentation, talking about some of the land-use
10 issues, and I'll addresses briefly.

11 Replaced your ride is part of ARB's
12 Enhanced Fleet Modernization Program, and it
13 encourages people to turn in their older pre-2012
14 polluting vehicles in return for an incentive to
15 buy a new or used cleaner vehicle. Qualification
16 for the program is based on family income,
17 residential address, and the type of vehicle you
18 leased or purchased.

19 Next slide.

20 The program is very well designed to
21 encourage applicants to buy the cleanest
22 technology, including zero-emission battery EV's
23 and fuel cell vehicles. In South Coast the
24 program's extremely popular. It is currently
25 receiving 20 to 30 new applications a day, and

1 there are two other contractors in addition to
2 myself, processing these applications. And I
3 have five case managers, three of whom are
4 Spanish speaking, and two from Chinese speaking,
5 that work on these applications.

6 The good news is that approximately 60-
7 percent of the applicants choose to buy plug-in
8 hybrids, another 30-percent choose non-plug-in
9 hybrids. The bad news is that only eight- to 10-
10 percent seem to choose pure electric vehicles or
11 fuel cell vehicles. And most likely that's
12 because of their lack of familiarity with the
13 benefits of pure electric cars and the difficulty
14 of a range in charging infrastructure.

15 Next slide, please.

16 So given the Replace Your Ride Program, I
17 think that we have a golden opportunity to
18 increase the number of zero-emission vehicle
19 purchased under this program. And I'd like to
20 recommend that we look at specifically adding
21 funding that -- to provide information to
22 applicants about the economic and air quality
23 benefits of battery EV's.

24 There are many excellent tools available,
25 including the Clean Vehicles website, the utility

1 ownership, cost of ownership calculators. The
2 clean vehicle rebate calculator, and the One-Stop
3 Shop Program, just to name a few. And now what
4 we need to do is make those tools accessible to
5 the people that are applying to Replace Your
6 Ride.

7 Next slide, please.

8 To tackle the infrastructure issue, I
9 would like to recommend creating an
10 infrastructure pilot program that's tied to
11 Replace Your Ride. This slide lists some of the
12 steps that I think such a pilot program could
13 include.

14 The bottom line is, that in order to make
15 good infrastructure policy, we need to work with
16 a sample of applicants to determine what's
17 feasible and what works for them, before we can
18 extrapolate to the larger population. And by
19 doing this type of program, we would be able to
20 assess the various options that have been talked
21 about, including residential charging, community-
22 based charging, curbside charging and public
23 charging, and see which one is going to work best
24 for each of the individuals in the sample, and
25 from that we can draw some conclusions.

1 Next slide, please.

2 A third recommendation is to -- I think
3 we need to advance one more. One more slide,
4 please.

5 A third recommendation is to use some
6 very targeted marketing to help Replace Your
7 Ride. Currently we have more applications than
8 we can handle or fund. But if we look at a
9 breakdown of where the applications are coming
10 from geographically, not all areas and
11 populations are equally represented. And I've
12 listed a few areas in the, in this slide of
13 opportunities for outreach. But, of course, many
14 of the other applicants of the other presenters
15 have listed many more.

16 Next slide, please.

17 The second subject I wanted to address
18 today is the challenge of providing charging for
19 residents of multi-family dwellings. In my role
20 as the owner of an infrastructure company, we've
21 walked literally hundreds of multi-unit dwelling
22 property. We're very familiar with the physical
23 and economic challenges of these properties. I
24 wish I had time to show you some of the pictures
25 of some of the challenges that we face, but on

1 this slide you'll see a list instead of some of
2 the obstacles that we run into, including lack of
3 parking, lack of physical space in the electrical
4 room, old panels and wiring, an uncertainty about
5 which units or apartments are going to need
6 chargers.

7 Next slide, please.

8 I wanted to focus on a particular issue
9 related to multi-unit dwelling charging
10 infrastructure. Several years ago at a focus
11 group of property owners and management
12 companies, we learned that if an owner of an old
13 building goes to a city for a permit for EV
14 charging, he or she may trigger a very costly
15 upgrade to bring the building up to the current
16 Electrical Code.

17 This can easily turn a five- to \$10,000
18 charging installation into a \$100,000 nightmare.
19 No wonder MUD owners and property managers are
20 not jumping at the chance to put in charging
21 infrastructure.

22 Next slide, please.

23 A number of innovative approaches are
24 being tried by local governments and
25 infrastructure companies. A few of these are

1 listed on the slide.

2 For example, Charge Point has a strategy
3 where the property owner or manager can install
4 charging, and then the charging is not assigned
5 to a specific individual until they decide that
6 they want to enroll and pay for that charging,
7 pay for the use of that charging.

8 Another approach is to build capacity for
9 backbone infrastructure, which allows people to
10 connect and disconnect as they come in, but this
11 can be quite challenging in a large garage or
12 parking area.

13 Another one is to look at solar and
14 energy storage to extend the capacity of the
15 electrical system. And then still another to --
16 the approach being used by a company called Power
17 Flex, which is to basically connect to the main
18 electrical source, and use the excess electricity
19 during times of the day when people may not be
20 running their dishwashers in washing machines.

21 Next slide.

22 Additionally, there's some other
23 recommendations, such that have already been
24 tried. Curbside charging, for example, on public
25 streets. DWP has done this, and I think this is

1 a very interesting solution for areas that do not
2 have a lot of parking. Car-sharing solutions,
3 such as the ones spoken about by Tara, and some
4 other options.

5 Next slide, please.

6 Finally, there are a number of new ideas
7 that can be implemented, including a waiver from
8 upgrading to the building codes, if only charging
9 installations are being done, or funding those
10 upgrades.

11 Next slide.

12 I hope you find some of these concepts
13 interesting and worth further discussion. Thanks
14 for your time and I really look forward to seeing
15 the Integrated Energy Policy Report.

16 Thank you.

17 MS. MANRIQUEZ: Thank you. We appreciate
18 that.

19 So that concludes our presentation for
20 this workshop. Now, I would like to invite the
21 Commissioner to ask -- and the Dais ask any
22 questions that they may have for our panelists.

23 Panelists, at this time I do ask for you
24 to turn on your video, if you haven't already.

25 COMMISSIONER MONAHAN: Well, I just

1 wanted to thank all the panelists. This is a
2 really fascinating discussion. And I do have
3 some questions and I'm looking forward actually
4 to the facilitating piece of this discussion as
5 well.

6 That I'm am curious, Enid, you talked
7 about an oversubscription for, for the program.
8 And with COVID-19, like we're seeing the barrier
9 -- actually an increased interest in vehicle, new
10 vehicle sale purchases, new and used vehicle sale
11 purchases. More people are afraid to ride public
12 transit, which is, you know, very difficult.

13 Public transit agencies across the country
14 that also -- you know, it's kind of the going
15 backwards from where we had hoped to go, which
16 is, let's make sure that we have mobility options
17 for low-income families that can't afford to buy
18 a vehicle.

19 So I'm just curious, is there -- are you
20 seeing any, any differences with COVID-19, any
21 interest levels varying as a result of that?

22 MS. JOFFE: Good question. Initially we
23 saw a big drop in the applications. And part of
24 that was because dealerships closed. So people
25 actually couldn't shop for vehicles. And I

1 should mention that a lot of the vehicles that
2 are purchased are actually used vehicles. So,
3 I'd say least half of them or more are used
4 vehicles.

5 But now we've seen a big uptick. And I
6 agree with you that a lot of it has to do with
7 people -- I think there was pent up demand, but I
8 also think there's some element that people are
9 not willing to use transit and other more crowded
10 forms. But I do think that there's a continuum
11 here, and people are willing to do car sharing
12 and van pulling more so than taking buses or
13 transit. So -- but, yes, there was a dip and an
14 increase.

15 COMMISSIONER MONAHAN: And the comment
16 we've received a lot, which I take the heart, is
17 that you really have to ask community members
18 what their mobility needs are, and then figure
19 out what -- how to meet them, versus coming in
20 with a solution that's pre-baked and impose that
21 solution.

22 And I'm curious. I think a number of you
23 actually are involved in this sort of community
24 assessment. Like what are you -- what is some
25 key takeaways from the communities that you've

1 engaged with in terms of what surprising mobility
2 needs that you didn't expect, or that are more --
3 that you're seeing in a more -- you know, are
4 there any threads of similarities between
5 different communities that we can build from?

6 MS. GRAY: Well, I'll go first,
7 Commissioner Monahan. I think that the number
8 one similarity across the communities is that
9 they want their voice to be heard. And I think
10 that what we are learning, Fresno had the largest
11 participatory budgeting process to determine what
12 we were doing with the transformative climate
13 communities funding. And I think we learn
14 through that process that while communities might
15 seem disconnected from traditional transit
16 decisions, they very much so want to be included
17 and involved with it. And I think that they have
18 data and stories and input that we might not, as
19 traditional planners and designers even really
20 think about. So I think it's very important to
21 have that community voice in the process.

22 COMMISSIONER MONAHAN: Is there -- and,
23 Tara, maybe this is a question for you. In terms
24 of the shared mobility solutions that you're,
25 that you're testing out, what are you finding in

1 terms of uptake -- I mean, this is in a pre-COVID
2 land. All bets are off right now until we have a
3 vaccine. But just in the pre-COVID world, what
4 were you seeing in terms of uptake and
5 receptivity to shared mobility, you know, shared
6 vehicle?

7 MS. GRAY: Well, you know, I think that
8 we have heard a lot about Tesla and about that
9 technology and everything. And I think that that
10 it is kind of for the haves, and maybe not the
11 have nots. And I think what we have learned
12 through our work is that more everyday folks like
13 me are interested in electric vehicle ownership,
14 very much so care about the environment, very
15 much so care about GHG reductions, and all of the
16 public health benefits, the improvements to
17 community health outcomes, et cetera.

18 I think that there was a misnomer that
19 maybe communities of color or people of color
20 didn't care about those things. And so I think
21 that what we are learning is that there's a huge
22 appetite in our communities for this information,
23 for access to affordable electric vehicles. For
24 access to charging infrastructure. And, of
25 course, we know that the charging infrastructure

1 will determine, you know, long-term adoption and
2 satisfaction and all of that.

3 And so I think that the work that your
4 organization has undergone and Kern COG and
5 others that are in this space, and what Jin is
6 doing, I think is, is very important to creating
7 any ubiquitous electric vehicle network, so that
8 everybody has access. And, you know, we struggle
9 with that traditionally.

10 Institutions in communities of color
11 don't always have the best relationships, and
12 when there is a relationship oftentimes it's
13 transactional and not relational.

14 And so, I think that we have really
15 learned today that there is an appetite and that
16 we need to be doing more.

17 MR. ZHU: Yeah. I just want to echo what
18 Tara said. I -- from my experience, folks are
19 really interested in electric vehicles. We got
20 to remember that these folks live in the
21 community, they fully understand the impact of
22 the air quality that they have on their health,
23 on their children's health, on their parents
24 health.

25 So, but there is this little barrier.

1 It's prices, right? It's all about, it's all
2 about the dollars. So I'm a lot of time --
3 that's why when will we go out there, I must
4 stress that we talk -- not only do we talk about
5 CVRP, we walk about all the incentive that's
6 available. That way, as long as they stack, you
7 see a huge, you can see a huge amount of
8 discounts on those electric vehicle, to make it
9 more affordable for the community. So, thank
10 you.

11 MS. URATA: And one of the things that we
12 find, too, is, transportation people still want
13 to keep it very individualized. And so for a lot
14 of the disadvantaged communities, the more
15 popular vehicles are the ones that have room for
16 more passengers. And we've been limited in that
17 as far as a daily car share vehicle.

18 I think for us, the Pacific Heights --
19 Pacifica Hybrid is the closest thing we have to
20 van for daily use for that. So, some of these
21 changes are waiting for the technology to catch
22 up with what the individual wants.

23 COMMISSIONER MONAHAN: Well, I guess that
24 was another question I had, too, is that, you
25 know, where there's a shared vehicle that's just

1 your standard like family size vehicle. There's
2 the van size, then we have a lot of micro
3 mobility, micro e-mobility choices. And there --
4 I'm curious about what -- how you all are
5 thinking about these various choices and the
6 level of interest that different communities
7 have, especially in micro-mobility alternatives.
8 And what's your thinking on, on that?

9 MS. URATA: When we started, we did a
10 study in the San Joaquin Valley with UC Davis,
11 and we were looking at last-mile transit. And so
12 when we started the MioCar Carshare Program, it
13 was hopefully with that idea that that could fill
14 that last mile. And then if a transit agency
15 could park one their buses, then that money saved
16 could go to subsidizing more of the micro-transit
17 type of options. And so far that has not yet
18 played out.

19 So, I think for me it's, you know, we're
20 still trying to find what's going to work for
21 micro-transit, and so we're trying everything and
22 listening to the communities, and trying to meet
23 the needs of the individual or the community,
24 which is often challenging, but that's kind of
25 where we are today.

1 MS. GRAY: And I would echo, Linda.

2 We're not there yet on our project.

3 MS. URATA: Yeah, I want -- go ahead,
4 Enid.

5 MS. JOFFE: There have been some
6 proposals from some of the car makers and some of
7 the operators to do sort of a hybrid program,
8 where people could basically make the choices.
9 That they would pay a fixed fee, and when they
10 needed a car they could get a car. When they
11 needed micro-transit, they could do that. They
12 could use transit. And I think figuring out how
13 to make that economically feasible and -- it
14 would be a great idea, because I think there's an
15 appetite to try a lot of different things.

16 And, you know, we don't want to encourage
17 people, as you said, Commissioner, we really
18 don't want to encourage people to just go back to
19 drive, drive, drive, so even if it's a zero-
20 emission car. So I think exploring an option
21 where we could have multiple choices would be a
22 great, great way to go.

23 COMMISSIONER MONAHAN: Yeah. I mean, and
24 definitely there's a generational divide in that
25 receptivity to micro-mobility. I know I'm

1 nervous about those two ladies that wants -- and
2 I thought I was going to hurt myself.

3 Well, I appreciate all the, all your
4 feedback and comments, and I think I'll get off
5 the Dais right now, and, Pilar, why don't you
6 come back in, and I look forward to the rest of
7 the facilitated discussion.

8 Thanks, everybody. Thank you.

9 MS. GRAY: Thank you.

10 MS. URATA: Thank you.

11 MS. MANRIQUEZ: Thank you. Thank you,
12 Commissioner Monahan.

13 So, we are now going to open up for
14 discussion. I'll have a couple moderated
15 questions. So just wanted to start off with our
16 first question, and this is for everyone in our
17 panel.

18 How would you rank awareness of EV
19 benefits person in your community, and what are
20 some ways to enhance awareness? And I know we
21 can tie a little bit about cultural, the cultural
22 appropriate work. How do you -- how is that
23 done? How is that approached?

24 MR. ZHU: I guess I can start. From my
25 experience, I think, like I mentioned earlier, I

1 think our communities are very well aware of the
2 benefits, you know, of electric vehicles.

3 Depends on its region. Some of the smaller
4 benefits, like you can be in the HOV lane by
5 yourself probably this apply to the Central
6 Valley, is that there's not that much HOV lanes.

7 But as for like the environmental
8 benefits, I'm -- I will say, 100-percent of our
9 audience understands that it brings cleaner air.
10 It brings improved air quality. Because a lot of
11 those -- these folks that live in these
12 communities have high asthma rates. But the
13 barrier, like I mentioned earlier, is that they
14 always see the electric vehicle as a rich
15 person's vehicle. The price is too high. The
16 electricity, they worry about their electricity
17 bill is going up.

18 So one of our strategy is we always use
19 our savings calculator on the field to let folks
20 know that how much exactly they can save depends
21 on their location, depends on their income, and
22 also that there is many different varieties of
23 vehicles out there besides the Tesla.

24 Obviously Tesla is up there, but there is
25 a Chevy Bolt that might fit your everybody needs.

1 If your range -- especially the valleys -- I can
2 see Tara nodding her head. Especially in the
3 valley where everything is so far away, maybe an
4 electric vehicle wouldn't fit you there. The
5 charging infrastructure still not there yet.
6 We'll recommend something like a plug-in hybrid,
7 where your shorter drive will be electric, but if
8 you need to take a longer road trip, like Fresno
9 all the way Stockton, you might need a plug-in
10 hybrid. So every community's needs are
11 different, and that -- but, definitely, to answer
12 a question, I definitely think they are well
13 aware of the benefits.

14 MS. GRAY: And I would add to that -- I'm
15 sorry. Linda, did you want to go?

16 MS. URATA: No, go ahead, Tara. Thank
17 you. I can wait.

18 MS. GRAY: And I would just add to Jin's
19 comment, and there -- it's really, driving an
20 electric vehicle is really kind of a way of life,
21 right. You incorporate it into your life. You
22 plan your trips around where you're refueling,
23 and you really think about that range, and range
24 anxiety is real, especially if you're in an all-
25 electric vehicle.

1 And so these are some of the things
2 through our uptake project that we have with CEC
3 that we are doing to make the community aware of
4 the benefits, but then also the lifestyle,
5 lifestyle changes. And, you know, how you plan
6 your trips differently and all of that. And just
7 do -- the way to incorporate it and other
8 technologies, other sustainable technologies. I
9 mean, if you have a have solar on your house and
10 driving electric vehicle, you know, you are
11 really, really reducing your carbon footprint.

12 And so there's lots of options. Of
13 course, that's not an option for some community
14 members that are in multi-use dwellings and don't
15 control that, but certainly considerations that
16 we are making community members aware of.

17 MS. URATA: What I was going to say is,
18 typically people don't start looking at cars,
19 whether its traditional fuel or an alternative
20 fuel, until you need a car. And so a lot of our
21 work has been done trying to get more cars on
22 dealership lots, whether it's used cars or new
23 cars. We're trying to get the dealership
24 salesforce more educated.

25 I'm old enough that I remember having to

1 launch hybrid vehicles, and we used to bring them
2 out to street fairs and all kinds of things. And
3 even then the dealerships would bring out like
4 their big Chevy truck and their little hybrid
5 car, and they would try to sell people the big
6 truck.

7 So, there's a lot of -- and it didn't
8 really change until the dealerships themselves
9 started doing local advertising for hybrid
10 vehicles. And I find that's going to be the case
11 for electric vehicles, too. Until we have them
12 marketable and being marketed to people who want
13 to buy cars when they're ready to buy a car, the
14 awareness campaigns and the national drive
15 electric weeks and all of the right and drives we
16 do, they're great for fleets, they're great for
17 people who have disposable income, but I think
18 we're still going to have to have more effort
19 done on how to capture that person who's in the
20 market for a car.

21 MS. JOFFE: And I would --

22 MS. URATA: Go ahead.

23 MS. JOFFE: -- comment that I think
24 infrastructure is still absolutely baffling to
25 people, and I think we need to address that.

1 Because a lot of people who are looking for a
2 car, the car -- buying the car, that's the
3 sizzle. To buy -- the infrastructure isn't sexy.

4 So, really, that's -- I propose doing a
5 pilot study to really help people understand that
6 there infrastructure, and there are ways to do
7 this. It could be as simple as a plug in the
8 wall, a 110 outlet, which is what many, many
9 homeowners are even doing, and is certainly more
10 feasible for multi-unit dwellings. But I do
11 believe we have to, we have to demystify the
12 infrastructure issue.

13 MS. URATA: At times that --

14 MS. GRAY: If I could just add one
15 more --

16 MS. URATA: Okay. Go ahead.

17 MS. GRAY: -- if I could just one more
18 point. And we've got to speak to everybody in
19 terms of access. We've got to make sure that
20 there are smartphone accessible applications and
21 that there are considerations for the unbanked
22 and underbanked. So I think that those still
23 play when it comes to mobility systems, shared
24 mobility systems and micro-mobility. I think
25 that those are still factors.

1 MS. URATA: For us, we go out to
2 community events and we'll bring out maps and
3 have people put dots on the map as to where they
4 want to see the infrastructure. And then what we
5 find is we go out the next year with our dot maps
6 and we have people who come back and they say,
7 but you didn't build the one we asked for last
8 year.

9 So it takes time, and it often takes more
10 time, you know, here it's been a whole year. But
11 for us it can take years to put together the
12 funding. It might only take you 90 days to put
13 in the station, but it might take you three years
14 to put together all of the funding, address all
15 the electrical. And so that's a challenge that
16 we face all the time.

17 MR. ZHU: I just want to add to Linda's
18 point about dealerships. We recognize that over
19 here at the Clean Vehicle Rebate Project. We
20 actually have a dedicated leadership team that
21 all we do is talk to all the -- I think there's
22 like 1,800 new car dealerships throughout
23 California. All they do is, we provide -- we do
24 dealership in-person training. Obviously that's
25 pre-COVID. But we go into the dealership, try to

1 make the process as easy as possible for these
2 dealerships because they -- there's so much
3 different programs, especially when it comes to
4 electric vehicles. We gave them little one-
5 pagers. So it takes the incentive side all of
6 their hands. That way just makes it easier for
7 the transition to happen.

8 Because we don't want -- what we don't
9 want is a dealership telling a customer the wrong
10 information about incentives and it comes back to
11 haunt the dealership. So we try to -- we have to
12 we have these all tested collaterals for our
13 dealership network dealers to educate themselves
14 and educate their customers about incentives
15 that's going on.

16 MS. MANRIQUEZ: Thank you. I feel like
17 we're jumping a bit ahead and I'm excited for
18 that. Let's keep the conversation going and I
19 appreciate the energy.

20 I did want to share what have been some
21 barriers. I know, we'll talk about that a little
22 bit. And what can -- for communities to
23 understand charging infrastructure and what can
24 -- what additional support is needed from the
25 agencies or local governments or other CVO's to

1 further support communities to engage with
2 charging infrastructure?

3 MS. GRAY: I'll jump right in on that
4 one.

5 MS. MANRIQUEZ: We're making --

6 MS. GRAY: From our experience with the
7 chargers that we've installed to date. And I
8 think that there are questions on both sides. I
9 think that property owners who are interested in
10 it, have concerns about the cost of the
11 electricity, about the cost of the power plant
12 upgrades.

13 I think that we've had to do a lot of
14 education around that with the property owners.
15 That we're, we've installed chargers, and then,
16 you know, everybody thinks that the fast
17 chargers, you need a fast charger everywhere.
18 Well, that is not necessarily true. You know,
19 you have to think about the technology, you have
20 to think about the connectors. I don't remember
21 who said that earlier.

22 Was that you, Enid, who said that earlier
23 about the technology and the connectors?
24 There's a lot that goes into figuring out what
25 kind of charger goes where. And planning the

1 usage around that.

2 So, again, some of those are answers the
3 community has, and having a community engagement
4 process we'll get to some of that. But then, but
5 then some part of it again is the technology and
6 the engineering and the existing power plant, and
7 what's needed in order to upgrade.

8 MS. JOFFE: And I'd like to add to that.
9 That I think we need to work with local
10 government. Local governments can make or break
11 charging infrastructure in many ways. First of
12 all, they control land use. So a lot of the
13 issues that Tiffany was talking about go back to
14 local governments and what's the land use on that
15 property. And when new construction take takes
16 place, what are they requiring? That's their
17 opportunity to require charging.

18 And then as I mentioned with retrofits,
19 whether the local government gets punitive, which
20 they can do, and requires older buildings to
21 upgrade, that will kill a charging project very
22 quickly.

23 So, I think we really need to help local
24 governments have the tools to understand why they
25 need to encourage charging, where it should go,

1 and to help the landowners and property managers
2 to install charging.

3 MR. ZHU: Yeah. I just want to add that
4 charging is probably the number one question that
5 we get when we go out in the field talking about
6 electric vehicles. And are we -- we always see
7 it as almost like a chicken-and-egg thing, right.
8 What comes first? Do we want -- is it -- if
9 there's more electric vehicles on the road, does
10 that mean they're the charging company? If the
11 charging projects will start invest into these
12 communities and charging stations there? Or do
13 we need charging stations first, then the
14 residents will see, there's a charger here by
15 Walmart. There's a charger in front of a CVS. I
16 can get a electric vehicle now. I can charge my
17 vehicle at these public locations. So that has
18 always been a very interesting conversation and,
19 yeah, I definitely wanting to hear more what the
20 other panelists have to say about this.

21 MS. URATA: A couple things I wanted to
22 add are -- that were hindrances, for instance,
23 with public schools, was having a policy if the
24 -- you know, the air district was asking that the
25 chargers be installed, where they were accessible

1 by the public, and a lot of our schools, all of
2 their parking lots are accessible by the public.

3 And so there's that challenge of what do
4 you do if a teacher shows up in the morning and
5 wants to plug into charge their car, but a member
6 of the public still have their car there?

7 Unless there's solutions, you know, about
8 charging extra fines if you're charging too long,
9 that nobody in a school attendance office wants
10 to have to deal with some angry person that they
11 got charged for their charging. So that's just a
12 very small example.

13 But when you look at how many schools we
14 have and how many sites. Right now I'm working
15 with one school district that has 20 sites for
16 potentially 80 chargers, then it becomes a big
17 deal.

18 So having policies for schools and for
19 others is that they can borrow from and take to
20 their board and not have to recreate it, that
21 would be a really big help.

22 Security. When we first opened up
23 charging stations at the Hispanic Chamber in
24 Fresno, they were constantly being vandalized for
25 their copper. And so one -- and so the only

1 solution was going to be to have to pay for
2 fence, to completely fence in their parking lot.
3 And they didn't have the budget, so the charges
4 were all turned off. So those were some
5 obstacles that I don't know that we really truly
6 eliminated.

7 But I do think that Tara was really right
8 on, too. It's not just the cost of installation,
9 they want to know how much the electricity is
10 going to cost. The difference between the LT and
11 DC and maintenance, ongoing maintenance expenses,
12 and how fast can they get that repaired. Is it
13 going to be 24 hours or is it going to be a week?
14 So those are some of the issues.

15 Even installing the chargers, we had
16 chargers delivered without all of their parts and
17 then it was months delay until we could get
18 everything together.

19 These things have evolved. I feel like,
20 as I said, I've been doing this for a long time.
21 So maybe that was a problem three years ago. I
22 don't know if it's a problem today, but those are
23 just some of the barriers that we've had in
24 working with the site house specifically.

25 MS. GRAY: Well, Linda, you are spot on.

1 And we were fortunate enough to be able to
2 replace those chargers that were turned off.
3 Yes, in our project we replaced them. And guess
4 what, there's a fence, but it's open, but it's
5 open all day during the day.

6 And it really wasn't because of the
7 chargers, it was really due to something else I
8 think that they just decided to put it in. But
9 nonetheless, we were fortunate enough to be able
10 to replace those, those chargers, but you are
11 spot on.

12 And we developed a siting methodology as
13 a part of our project, and we're in the process
14 of finalizing on that now, to kind of follow your
15 organization's lead on the creating a seamless
16 infrastructure.

17 But I also wanted to follow-up on Enid's
18 comment. In terms of local agencies, you know,
19 the permitting process can still present a
20 challenge and CEQA, you know, though there's an
21 exemption that not everybody is, you know, aware
22 of how to apply the exemption, what the processes
23 and all of that. So those I think at the agency
24 level still present some issues for us.

25 MS. URATA: To throw quick on that. The

1 governor's GO-Biz office now has a map for
2 streets -- permit streamlining and showing which
3 counties are ready for EV's, from station
4 permitting streamlining. And I'm happy to say
5 that Kern County's on the green. We're ready for
6 permit streamlining. But in working -- we plan
7 to be working with Kyle and at the governor's
8 office. We're going to be inviting him to talk
9 with all of the COGS, who then reach out to all
10 of the local governments.

11 So, hopefully we can get the other eight
12 counties in the San Joaquin Valley APCB area up
13 to speed on permit streamlining, and that'll
14 help. But, yeah, these are ongoing efforts.

15 MS. MANRIQUEZ: Thank you for that work,
16 Linda. That's really important, so we appreciate
17 that for sure.

18 But moving on to further questions, I did
19 want to ask. In your expertise, what -- where
20 would communities want these charging stations to
21 be located at? And would these charging stations
22 be more appealing if they're a community charging
23 station or if they're a personal charging
24 station?

25 MS. URATA: I'll go. We still see that

1 workplace charging is important for the area.
2 And destination, local businesses, destination
3 type charging, whether it's at a gas station or
4 at a grocery store, those are still two of the
5 most requested locations for charging stations
6 when we go out.

7 MR. ZHU: Yeah. From we when we talk to
8 our CBO's, the CBO's always give us feedback
9 about what they hear on the streets as well. I
10 think a lot of time is something with the
11 community centers. That's where -- community
12 centers, faith-based organization, like churches,
13 synagogues, they all -- there -- it's any area
14 where folks tend to gather for a -- oops -- for
15 two to three hours, so it's even more a week.
16 That's -- those areas are always good to have
17 charging stations. Maybe colleges and
18 universities. I know that Fresno State has some
19 charging stations, and I believe Fresno State
20 College has some as well. So I think I it's
21 important.

22 MS. URATA: You're welcome.

23 MR. ZHU: Yeah. And once they see, once
24 the younger folks see there is charging stations,
25 they might even start looking into obtaining a

1 electric vehicle as well. So I think that those
2 are some areas I would recommend.

3 MS. GRAY: I think --

4 MS. JOFFE: I think my take is that -- go
5 ahead, Tara. You go first.

6 MS. GRAY: Well, I was just going say
7 that my take is everyone would prefer to be able
8 to plug in at home, even if it's just 110,
9 because then they can charge overnight. But we
10 also have to factor in -- not that public
11 charging isn't great, but I can tell you from my
12 personal experience, I've been driving electric
13 only 2001, and there weren't a lot of charging
14 stations in 2001. So, it's adapted. Like I was
15 worried then, but now I never think about it,
16 because my car has, my Chevy Bolt has 240 miles'
17 range, so honestly it's not a concern.

18 So I think we also need to plan for the
19 future. I mean all of the car ranges are
20 increasing, and I think the landscape of
21 charging's going to change. I don't know what
22 that change is going to be, but I think we have
23 to plan for it.

24 MS. URATA: To me a sign of that change
25 is my daughter drives a Chevy Bolt and is she

1 lives down in San Diego and drives up here to
2 Bakersfield to see us. And she can actually now
3 cost compare.

4 So there's -- were before you used to
5 have to only go to that station because it's the
6 one on your route, and that you could stay -- get
7 to. Now she can actually choose which station to
8 go to based on pricing, and that's actually a
9 really good shift that's happened in the last few
10 years.

11 MS. MANRIQUEZ: Tara, did you want to
12 share something?

13 MS. GRAY: Well, I just had a thought
14 about multi-use dwellings and just thinking about
15 how parking is dealt with there. And if we are
16 going to be able to put charging infrastructure
17 in those dwellings, then we're going to have to
18 kind of, I think, have a holistic approach to
19 parking, and the way parking is assigned and
20 deployed in dwellings. And that might be an area
21 where agencies and associations might be able to
22 get together and do some additional planning and
23 -- because I think we, I think we will have to
24 take care in that area.

25 MS. URATA: I think Enid had some really

1 great information on her slides about
2 considerations for MUD's, and I appreciated that.

3 For us, when we were putting in the
4 electric carshare stations, it was finding enough
5 space close to a panel or source, that could also
6 be where we could install ADA type of parking.
7 So that's a huge consideration.

8 MS. JOFFE: I didn't --

9 MS. URATA: I did --

10 MS. JOFFE: Good point. I didn't mention
11 ADA, but that is critical. Yes, ADA is critical.

12 MS. MANRIQUEZ: Enid, I did want to jump
13 into more about your presentation on how to
14 advance charging stations at MUD's. When we
15 first spoke, you mentioned that it's very hard
16 for older homes to meet the building code,
17 especially if we're going to be making any --
18 bringing it up to code can be 5,000 to \$10,00.

19 I was wanting to hear more about your
20 expertise on land use issues and having PowerFlex
21 as a potential interim solution, while we figure
22 out what to do with building codes. And we also
23 discuss like an amnesty program as well on like
24 building codes as well. If you can tap into that
25 conversation of it, I would really appreciate

1 that.

2 MS. JOFFE: Sure. Yeah, thank you,
3 Pilar. Yeah, I think we've all been sort of
4 beating our heads against the wall about the
5 MUD's, because it's such a difficult problem.

6 And, you know, and now we're starting to
7 see some creative solutions. I agree the
8 PowerFlex solution and the Charge Point solution
9 are good. Several organizations have tried like
10 membership fees. Those haven't worked out very
11 well because people don't really want to be tied
12 to a monthly fee, not knowing, you know what it's
13 going to be, how much they're going to use, and
14 that's been less successful.

15 But I do think, ultimately, we've got to
16 take a deep dive into the building codes and the
17 electrical code, because there are some things
18 that I think could be re-examined. For example,
19 as an installer, one of the things that we
20 encountered was that we went -- when we went in
21 and did solar and energy storage in some
22 buildings, we still had to provide the same level
23 of grid-connected electrical capacity as we did
24 without the storage and solar. So, basically,
25 there was no savings. Because even though the

1 hope was you wouldn't ever use that that, you
2 know, that grid-connected electricity, you still
3 have to comply with it. And that's actually in
4 the code. So, I think we have to get to the
5 source of the issue, which in some cases is the
6 code.

7 Now, in the meantime, the point about an
8 amnesty program. Anyone who's, you know, good in
9 local government has probably heard about the
10 granny-flat laws, where in order to help increase
11 on affordable housing, a lot of communities have
12 offered amnesty for second units on their
13 property that were built illegally at the time.

14 And I think something similar could be
15 done for EV charging, is to not scare people off
16 by saying, this is going to cost you, or man, if
17 they see those paint cans to the electrical room,
18 you're, you're going to be in trouble. But to
19 provide a more consultative approach and help
20 people figure out how to do it and maybe provide
21 some waivers. Of course, we have to deal with
22 public safety. That's critical. And that's why
23 I suggested maybe a fund of some kind or a
24 revolving loan fund, or something similar to what
25 -- the financing solar. So, I think we have to

1 address it. It's a serious problem and we won't
2 get too far without addressing it.

3 MS. MANRIQUEZ: Thank you. I appreciate
4 that.

5 I'm going to dive more into specific
6 questions based on your presentations, and this
7 next question is for Tara.

8 What has been your experience when
9 engaging the unbanked are underbanked communities
10 of the Central Valley? Have EV's and charging
11 infrastructure been appealing to them?

12 MS. GRAY: Yes. As we learned in our
13 budgeting process, it was very important to them
14 that we are in the price process right now. We
15 were stopped by COVID-19 pandemic of going into
16 our next phase of community engagement to really
17 get some of the answers to those questions. But
18 our first survey, in our first pass, the
19 community is very excited.

20 And the Fresno Housing Authority was very
21 committed to it, and gave us a \$100,000 subsidy
22 for this project specifically, so that we could
23 make sure that the most disadvantaged or the most
24 vulnerable in our communities would have low cost
25 and/or in many cases, no-cost access to our

1 network.

2 So, definitely core to providing resident
3 access in an alternative way, again, through
4 smartphones, and an alternative card system to
5 create access for those that don't have credit
6 cards.

7 MS. MANRIQUEZ: Thanks, Tara.

8 This next question is for Linda. And,
9 Linda, when we first talked, you mentioned about
10 the 2019 EVSP Blueprint implementation. And I
11 wanted to just have a conversation around, how
12 was the blueprint approached. What were some
13 questions asked when developing this EVSC
14 Blueprint for Kern County?

15 MS. URATA: Well, our first step was just
16 to assess the market and where we are, where
17 there were charging stations, the input that we'd
18 already been receiving from the community looking
19 at the launch in other Central Valley areas. So
20 there was kind of first that that initial
21 approach to most of our plans or studies, which
22 is just to do that community assessment at a very
23 basic level, at the start.

24 MS. MANRIQUEZ: That's great. Were there
25 lessons learned from community decision making

1 during this process that you'd like to share?

2 MS. URATA: Again, I think some of it
3 goes back to capacity. We had invited a lot of,
4 for instance, environmental justice and social
5 justice folks to come out to our meetings, but at
6 that time they had lost a staff person. And so
7 their ability to participate at a higher level
8 was diminished.

9 Working with consultants that was outside
10 of our community led to a diminished ability to
11 come up and hold community workshops, and I think
12 we could have done a better job going out to the
13 communities and doing those kinds of needs
14 assessments and grassroots planning up. So those
15 were two areas where I could see us -- where we
16 were challenged, and where we could have done --
17 had a better approach, perhaps, or another solve.

18 MS. MANRIQUEZ: Thank you for sharing.

19 This next question is for Jin. Jin, in
20 your culturally appropriate education and
21 awareness campaign in your previous work at CSE,
22 where there any specific program or specific ways
23 to engage community that made electric vehicle
24 and charging stations more appealing? Like
25 tabling can be hard and engaging folks with new

1 technology in itself can be challenging. So feel
2 free to share your experience in that way.

3 MR. ZHU: Yeah. Thank you for the
4 question. Yeah, I think the number one thing is,
5 have multilingual staff. We have folks on our
6 staff that speaks Spanish, that speaks Mandarin
7 and they also speaks Tagalog. So I think once
8 the community members see someone that speaks
9 your language, they're more -- especially if
10 these committee members their first language is
11 not English, they're more willing to engage.

12 And also we have little -- in order to,
13 we will have the standard ways of attracting
14 folks, right. We have sometimes we bring a
15 little prize wheel out. Every -- we have little,
16 fun little giveaways that have fun are saying
17 about EV's in both English and Spanish. So just
18 different ways to attract folks to our booth, to
19 have an engaging conversation.

20 Our banner has always been one of our
21 best thing, if you remember in my slide, that it
22 has the list of all the different vehicles that's
23 out there, that qualifies for the state rebate,
24 whether it's fully electric vehicle, plug-in
25 hybrids and fuel cell and electric motorcycle.

1 So one of our -- all the comments people
2 says, wow, I didn't know that there's that many
3 different electric vehicles out there. The only
4 thing I've heard of is Tesla. I didn't know
5 Chevy has one. I didn't know Hyundai and Kia
6 have both electric and plug-in hybrid, right.

7 So visual is very important. We believe
8 in graphics. Visual make everything easier or
9 more attractive for the folks to come to the
10 booth or to pay attention during the presentation
11 and have a meaningful conversation after.

12 Thank you.

13 MS. MANRIQUEZ: So we have time for one
14 more question. And I think this was an important
15 question that I like to ask is, how would you
16 recommend for state agencies or local governments
17 to build trust with community organizations, or
18 community members to build these healthier and
19 interrelationship, empowering relationships with
20 community members?

21 MR. ZHU: I think I will. I'll go first.
22 It's like I said in our slide, that it is
23 community-based organizations. These folks are
24 the faces on these communities. They are --
25 everybody goes towards them for any kind of

1 advice, whether it's for transportation advice,
2 whether it's for maybe food or shelter or
3 health insurance.

4 So I think having a good working
5 relationship with some of the prominent CBO's,
6 big or small, in the community is one way to
7 connect state agencies to the, to the
8 communities.

9 MS. MANRIQUEZ: Thank you.

10 Tara, did you want to share something?

11 MS. GRAY: Was just going to say, yeah,
12 to add to Jin's point. I think that the cultural
13 competence is important. I think the partnering
14 with community organizations is very important.

15 We being in this space, I know that our
16 communities are like, whoa, you guys are doing
17 the EV stuff and, you know, it is very well
18 received. It's a surprise. It is prideful
19 moments many times about us being on the
20 forefront of the emerging technology and being
21 able to bring the opportunity to our communities.

22 Unfortunately, many times our communities
23 are forgotten or disinvested. And so to be able
24 to be on the cutting edge of this, I mean, we are
25 just so proud to be able to do this work, and to

1 be able to represent CEC in the community and
2 marketing work and, you know, SGC on the on the
3 TCC work.

4 And so it is, I would say, a huge morale
5 booster, a confidence booster. I believe that it
6 adds the relational component that I was talking
7 about, that I think was -- is missing so many
8 times when institutions engage with our
9 community.

10 So we are very pleased and very proud and
11 would like to see many other organizations go
12 this way in dealing with communities of color and
13 traditionally and historically disinvested
14 communities.

15 MS. MANRIQUEZ: Thank you, Tara. I
16 appreciate that.

17 So this wraps up our discussion portion
18 of our panel. Thank you everyone for joining us,
19 and we look forward to continuing to seeing your
20 work.

21 I'll go ahead and transfer over to the
22 IEPR team. Thank you.

23 MS. RAITT: Thanks, Pilar, and thank you,
24 Panelists. And if you could just stay --

25 MS. URATA: Thank you.

1 MS. RAITT: -- stay on the line and your
2 videos on, and we will move to Jonathan Bobadilla
3 to read a few questions from the attendees.

4 MR. BOBADILLA: Thank you, Heather.

5 And this question is from Mary Brazil
6 (phonetic), and it's not directed to anyone
7 specifically to the panel. But what are the
8 innovative, accessible ways to engage
9 participation from disadvantaged communities?
10 Several environmental justice organizations have
11 great interest, but little bandwidth to
12 participate in typical advisory group meetings.

13 MS. URATA: This -- hi. This is Linda.
14 We find that trying to host community workshops
15 in the community, whether it's an evening
16 providing childcare or an activity for children
17 at a children's table and providing food. We'll
18 offer dinner so that people can come and spend
19 some time there. And if not, you know, feed the
20 kids quick, run out of the house, participate.
21 Plus, it gets you high school kids and college
22 kids and other interests, you know, a variety of
23 ages, if we do those things.

24 MR. ZHU: Yeah, I just want to echo that.
25 Food. Food is number one. I know that a lot of

1 our -- yeah, a lot of our CBOs want to do
2 workshops, because folks work. They work 9:00 to
3 5:00 and no -- and your workshop starts at 6:00
4 p.m. No one is going to be, had the ability to
5 have dinner, come to the workshop, and the
6 workshop tends to be an hour. So food,
7 childcare, all of those are very important if you
8 want to increase the community participation for
9 sure.

10 MR. BOBADILLA: All right. And this next
11 question is from Leslie Alden (phonetic). Are
12 there opportunities for PPA's to be used to
13 upgrade multifamily buildings to offset the
14 upfront cost of EV charging installations? And
15 this is for everyone in the panel.

16 MS. JOFFE: That's a really good
17 question. I'm not sure that charging alone has
18 enough of a value or a payback, quite honestly,
19 to make it attractive to a PPA. However, there
20 have been a lot of PPA projects recently that
21 included charging along with solar and storage.
22 So I think it's worth keeping an eye on, I'm just
23 not sure if the charging alone is viable.

24 We have seen a lot of financing
25 mechanisms tried for charging, and most of them

1 have not worked. We even tried to use the low
2 carbon fuel credits that are generated by the
3 charging. Those have like 10-year payback, and
4 most investors are looking for a three, or max,
5 five-year payback.

6 MR. BOBADILLA: Thank you, Enid.

7 And we, it looks like we have time for
8 one more question. And this question is from
9 Michael Wrendler (phonetic). There's several
10 environmental screening data modeling
11 methodologies. And so how do each of these
12 communities discuss, understand what data is
13 available to them to make such a decision, and
14 that this is something that other state agencies
15 and federal agencies have been pushing?

16 And again, this question's open to the
17 panel.

18 MS. JOFFE: So, I will -- I'm not sure
19 that I fully understand on which type of
20 modeling, but I would say that we used in our
21 project to make determinations about which
22 neighborhoods to focus on, we use the
23 CalEnviroScreen 3.0 Tool. So not a, not a pure
24 transit planning tool, but we definitely used all
25 of the data from that in order to make the

1 decisions about our project.

2 MR. ZHU: And for us, we use
3 CalEnviroScreen 3.0 but we also uses the, there's
4 a AB 1550 map, the low-income community map out
5 there, that kind of, there's a map out of there
6 that overlays it with the CalEnviroScreen, which
7 opens up the state even more.

8 And the third thing that we do is
9 actually we rely on our, each individual equity
10 specialist, because we have one that lives in
11 Sacramento. We have one that's in Bay Area, two
12 in Fresno. So these folks, along with our CBO's,
13 we trust their judgment.

14 There are a lot of times that the problem
15 with CalEnviroScreen is there's one side of the
16 of the road, it's considered the AC. The other
17 side they're not somehow. Even though they
18 breathe the same air, how does that impact? So
19 we also trust -- a lot of trust into our CBOs and
20 into our, our own staff, our equity specialists,
21 who understand where these pockets of DAC's are
22 that are not in -- that are not on any of the
23 tools. And we tend to reach out to those folks
24 as well. They're will be called the forgotten
25 communities, even more forgotten, because they're

1 not even reflected on the tool. So we focus on
2 those committees as well.

3 MS. JOFFE: I think the tools are
4 excellent in terms of helping to map driving
5 patterns and show where good, potential charging
6 sites might be located that a lot of people could
7 access.

8 I think the problem is that identifying
9 the location does not mean that that property
10 owner is interested in putting in charging. And
11 many of us have spent years trying to negotiate
12 with various property owners about putting in
13 charging, because they were terrific location.
14 It doesn't mean they're environmentally focused,
15 or they want charging on their property.

16 So I think we have to kind of do a
17 combination of, you know, these tools as a
18 predictor, and then I think we need to do the
19 field work. You know, I think that's kind of
20 what I was saying. We need to sample, and we
21 need to be doing field work. So -- and check the
22 tools and then refine the tools based on that.

23 MS. URATA: Yeah. I'd say that's the
24 case. Obviously as a COG we do a lot of
25 transportation modeling, but we also do work in

1 the communities like traffic counts, for
2 instance, to show us where the traffic is that
3 informs the model at a state, you know, to make
4 it more localized, as well as look and having
5 input from all of our local governments, because
6 they're the ones that are intimate with their
7 general plans and know where things are going or
8 coming up.

9 So I think it's that mix of, like Enid
10 said, field work, studies that add data to the to
11 the models and then using the models as well for
12 transportation planning. But when it comes to EV
13 charging infrastructure specifically, it really
14 is the outreach and the one-on-one work that's
15 that's informing plans.

16 MS. GRAY: And if I could just add one
17 more thought that I think we have -- it's not
18 related to infrastructure, it's really related to
19 people. And I think that we still have a hurdle
20 to overcome in the COVOD-19 world, and that is
21 that we've got a restore confidence of people in
22 our systems, our mobility systems and our public
23 transit systems.

24 And so to the extent that we can deploy
25 tools that will help with, you know, contactless

1 payment and those kinds of things, and I know
2 that we are -- that's a consideration that we are
3 now looking at. We're looking at a product made
4 by ZED Digital now that has a whole contactless
5 payment system, and everything in it is because
6 we feel that we've got to now address that whole
7 public confidence piece, too. And I know that
8 doesn't have anything to do with infrastructure,
9 but it certainly has something to do with the
10 overall success of all of our systems.

11 MR. BOBADILLA: All right. Thank you,
12 panelists. And with that, I'll give it back to
13 Heather.

14 MS. RAITT: All right. Thank you,
15 Jonathan. And thank you so much, Jin and Tara
16 and Linda and Enid. That was just a really
17 helpful discussion. And thank you, Pilar, again,
18 for moderating that.

19 So now we'll move on to the public
20 comment portion of this session. And so a couple
21 of people have already raised their hand. And so
22 if you're using the online Zoom platform, you can
23 just click that raised hand icon, and that'll let
24 us know you'd like to make comments.

25 And if you're on the phone only, then

1 just press star nine and that will effectively,
2 raise your hand. And RoseMary Avalos from the
3 Public Advisor's Office at the Energy Commission
4 is here to help us with the public comments.

5 So, go ahead, RoseMary. Thanks.

6 MS. AVALOS: Thank you, Heather.

7 I will first call on attendees using the
8 raised hand feature in Zoom. Please state your
9 name and affiliation, and spell your first and
10 last name. Also, do not use the speakerphone
11 feature because we may not be able to hear you
12 clearly.

13 Sara Rafalson, your line is open.

14 MS. RAFALSON: Hi this is Sara Rafalson
15 from EVgo, and it's S-A-R-A, R-A-F-A-L-S-O-N.

16 I wanted to make sure that I could
17 comment on the first presentation as well, but I
18 think I wanted to respond to Tiffany's
19 presentation, which I thought was really
20 excellent. And I saw it before in earlier
21 version on the SB 1000 Workshop. But I think
22 just one comment on the questions on density, and
23 what are the challenges with density, is it land
24 use or zoning?

25 I think one thing that we've seen, which

1 is an unintended program design consequence, is
2 that 24/7 access requirements for any
3 infrastructure programs really limit the ability
4 to install in dense urban areas, because they
5 don't typically have the surface lots that you
6 may see and in Sacramento or other kind of more
7 -- other areas that are maybe a little bit less
8 dense.

9 So I would encourage that to be looked at
10 as a potential reason why we don't see as many
11 charging happening in dense urban areas. Thanks.

12 MS. AVALOS: Thank you, Sara.

13 Our next commenter is Charlie Alcott.
14 Please get your first and last name and spell
15 your name. Your line is open. Charlie Alcott.
16 You may need to unmute on your end. I see that
17 he's not -- okay. Charlie, you may need to
18 unmute on your end and -- okay. There's some
19 difficulty with a meeting, and just want to give
20 a reminder that for those on the phone to dial
21 star nine to raise your hand, and star six to
22 mute and unmute your phone line. I'm going to
23 give it a little bit of time to see if there will
24 be more raised hands.

25 (Pause.)

1 Seeing there are no raised hands, that
2 concludes comments. I'll turn it to you,
3 Commissioner Monahan.

4 COMMISSIONER MONAHAN: Great. Well,
5 thank you. Thanks to all the panelists. It was a
6 really great discussion. And hope folks are able
7 to return to the afternoon session.

8 As I said before, where we're going to be
9 diving deep into electric vehicle charging
10 infrastructure. We're going to be starting to
11 discuss some of the analysis that we need to
12 complete our AB 2127 report on what are the
13 charging needs to meet California's goal of
14 having 5,000,000 electric vehicles on the road by
15 2030. So hope you're able to return for the
16 afternoon and for Thursday.

17 Thanks everybody.

18 (The workshop concluded at 12:00 p.m.)

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CERTIFICATE OF REPORTER

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

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IN WITNESS WHEREOF, I have hereunto set my hand this 10th day of December, 2020.



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.



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December 10, 2020