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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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MODERATOR
Pilar Manriquez, California Public Utilities Commission

PRESENTER
Tiffany Hoang, California Energy Commission

PANELISTS
Jin Zhu, Center for Sustainable Energy
Tara Gray, Fresno Metro Black Chamber of Commerce
Linda Urata, Kern Council of Governments
Enid Joffe, Clean Fuel Connection
APPEARANCES

PUBLIC COMMENT

Sara Rafalson, EVgo
# AGENDA

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PROCEEDINGS

10:00 A.M.

TUESDAY, AUGUST 4, 2020


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
charging infrastructure.

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

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

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

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

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

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

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

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

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

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

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

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

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

So, if you’ve been -- as just state here, generally any of these IEPR workshops, do you
know that equity is a theme that is running through all of the workshops. We really are -- have tried to make sure that that, that topic is a core area of exploration. And this morning we’ll be doing a deep dive into that topic.

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

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

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

COMMISSIONER MONAHAN: All right. Thank
And just a heads-up that we -- a few other folks may be joining us on the virtual Dais. We’re hoping that Richard Corey from the Air Resources Board, the Executive Director, will be able to join, and fellow CEC Commissioner Karen Douglas. So there may be others on the Dais later in the session.

So, Heather, I’ll turn it over to you to start the Workshop.

MS. RAITT: Great. Thank you, Commissioner.

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

So, go ahead, Tiffany. Thanks.

MS. HOANG: Thank you, Heather, and Commissioner Monahan. Good morning everyone. As Heather had mentioned, my name is Tiffany Hoang, and I’m an Air Pollution Specialist in the Electric Vehicle Infrastructure Charging Unit.
I’m very excited to be kicking off this workshop today on charging infrastructure. We’ve got a great group of panelists, and we’ll be discussing everything from charging gaps to community engagement outreach, advanced charging technologies and forecasting models.

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

Next slide, please.

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

Next slide, please.

As some of you know, we’re and continue to see disproportionately higher levels of pollution, much of which in California comes from the transportation sector. Electrifying vehicles can play a big role in reducing transportation emissions. The update though faces several challenges, including high up-front vehicle
costs, barriers to home charging, and added range anxiety from gaps in public charging infrastructure.

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

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

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

Next slide, please.
So far we’ve looked at the distribution of public-level 2 and DC Fast charging infrastructure by geographical area, population density and population income level. These maps show a distribution of public DC Fast and Level 2 charging stations combined, and where PEV density and residential population density are the highest and lowest by county.

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

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

We found that although San Francisco County has the highest population in PEV density of all California counties, it has about the 10th number of Public Level 2 and DC Fast chargers.
combined in L.A. County, which has the most chargers, public chargers in California.

Next slide, please.

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

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

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

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

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

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

Next slide, please.

Based on that show distribution of public DC Fast and Level 2 charging station, innovation through growth and where low-income
community Census Tracts are. DC Fast charging stations are shown on the left in yellow, and the Level 2 stations are shown on the right in green.

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

About 50-percent of all Public Level 2 chargers, and 53-percent of all public DC Fast chargers in the state are deployed in low-income community Census Tracts. In the Bay Area, Los Angeles County, Orange, and San Diego County, their charger deployment in the state is the highest, about 50-percent of those chargers are within low-income Census Tract communities.

Next slide, please.

In the previous slide I mentioned that generally we see more chargers being deployed in low-income communities Census Tracts than in
middle- or high-income communities. But when we look at chargers distributed across these income levels per capita, we see a different story.

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

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

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

Next slide, please.

Our analysis so far evaluates state distribution of chargers across market segments at a high level. We look to see whether there
were any trends or correlations in charger
distribution across geographies, population
densities and income level. And overall, we
found that chargers are co-located with
population and PEV registration. That land use
likely can vary charger deployment in Census
Tracts that have high population densities, and
that there appears to be a modest correlation
between income and charger deployment.

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

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

We’ve also started looking at land use to
identify where people live and are likely to
charge, and to also assess where makes the most
sense to evaluate infrastructure deployment in proportionality by geography, population density and income level.

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

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

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

In this same manner, a small Census Tracts may have no chargers within its...
boundaries, but there may be a number of public
charging opportunities just outside of its
boundaries, that are convenient for some
residential PEV drivers.

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

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

So if you recall, we’ll be working on
this analysis every year. And we're looking to
publish this report in the fall. This report
will be included as an appendix to CEC Clean
Transportation Program Investment Plan, and to
802127 staff report on charging infrastructure
that includes supporting hardware and software.
unit for all vehicle categories to support widespread transportation electrification.

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

Next slide, please.

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

(Pause.)

MS. RAITT: You’re muted --

MS. HOANG: Commissioner Monahan, I think you’re muted.

COMMISSIONER MONAHAN: Sorry. That was a basic new mistake. And so, Chair Hochschild, if you are -- if you have any questions, I encourage you to just come on the video and unmute yourself. Don't, don't follow my lead.
CHAIR HOCHSCHILD: No questions. Thank you.

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

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

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

COMMISSIONER MONAHAN: Yeah, it might just provide an indication of -- if there really
is a land use barrier --

MS. HOANG: Uh-huh.

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

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

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

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

COMMISSIONER MONAHAN: Uh-huh.

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

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

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

MS. HOANG: Thank you.
COMMISSIONER MONAHAN: Heather, can I turn it back over to you --

MS. RAITT: Sure.

COMMISSIONER MONAHAN: -- to kick off the panel?

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

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

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

Right. Well, so mostly it looks like we've got governmental organizations, but we do have a pretty varied selection of different kind of representation. So thank you so much for everybody who participated in that. And it looks like we actually got almost, we got about 65- percent of the people participating, so that's
Alright. So next we'll move on to our panel. It's a panel discussion on Engaging Communities for Charging Infrastructure Needs, and it's being moderated by Pilar Manriquez from -- who was formerly an executive fellow to Commissioner Monahan, and now is an assistant chief of staff to Commissioner Guzman at the CPUC.

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

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

MS. MANRIQUEZ: Thank you, Heather.
Hi, good morning, everyone. Nice to see everyone here, Commissioner Monahan, Chair, thank you for joining us this morning.
I wanted to welcome everyone to the engagement and outreach for enhancing Charging Infrastructure Workshop. As your moderator today, I'm really excited to have several panelists that engage in environmental justice,
local government, and/or have previously done charging infrastructure work.

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

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

So we're going to go ahead and start with our first panelist, and this will be Jin Zhu. Jin Zhu is currently a manager on the Clean Vehicle Rebate Project. He is a part of the equity team and leads a team of six equity specialists across California focusing on outreach and education to California
disadvantaged communities. He started with the CFE as an equity specialist himself, and his outreach territory fans from Fresno all the way to the Oregon border.

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

Jin, go ahead, take it away.

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

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

Next slide, please.

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

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

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

One thing to know is that even though we represent CVRP, but while we're on the field we
mentioned all the different EV incentives that also stacks with CVRP and also locally available.

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

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

The last few picture represents actually something that we do as another engagement tool, which is a free electric vehicle test drive. We work with the local dealerships to bring all of these different vehicles, electric vehicles, plug-in hybrids, into the community. We actually have done quite a few of these. And from what we can gather is that a lot of test drivers has two
things in common. One is that it's the first
time inside either an electric vehicle or plug-in
hybrid. And second is that they're always
surprised by how fun and how quiet an EV can be.

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

Next slide please.

Okay. So community-based organizations.

That's what I mostly want to focus on today. Is
one thing that's for certain is that there's a
lot of different disadvantaged communities in
California, and each has its own very unique
needs and challenges. And most importantly, is
that to a lot these communities trust is actually
earned and not give.

These community trust their own. They
trust the folks that live in the community, are
working for the community. And the community-
based organizations serve exactly that purpose.

They are the trusted resource of the committee
members. That's why working with the CVO is one
of our key outreach strategies into disadvantaged
communities.
As you can see from the graph on the right-hand side, we currently have 23 different CVO’s under our CVRP community partner network. I believe that there is two that's underway. It's constantly growing.

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

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

We take our feedback from our CVO partners seriously, and also have also
implemented some of the changes that they’re recommended, whether it's on collateral, whether it's on presentations, whether it's on some of our talking tracks that we use while we’re on the field. CVO feedback is very important to us and then we take that very seriously.

And next slide, please.

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

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

As you can see from the graph, over $72,000,000 worth of rebates has been reserved, and it’s over 72 -- 7,700 -- 4,700 stations has been funded. Forty-percent of those actually are
actually in the DAC. CEC and some our funding partners are focusing on increasing marketing, education, outreach and technical assistance, as well as future of -- and well events of these future events.

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

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

Next slide, please.

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

Thank you.

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

Next we have Tara Lynn Gray, who is the
Chief Executive Officer of the Fresno Metro Black Chamber of Commerce.

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

Welcome, Tara. Go ahead and take it away.

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

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

While we run several programs through the Chamber and Chamber Foundation, my presentation
today will really look at our Green Team programs.

Next slide, please.

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

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

And what you see here on this slide is how we bring that education in these areas to all of our events. This is a photo pop-up at our annual business salute to Dr. Martin Luther King. And we provide the cards as prompts for our
guests to talk about these issues and to take photos and videos around these topics.

Next slide, please.

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

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

We are preparing to roll out our e-bikes, looking at the end of this year or early 2021. Some of the key elements of our project are considerations for the end banks and under-banked residents in our community, where we have built a subsidy from the Fresno Housing Authority for residents to get access to the network for low
and no-cost options, and we are establishing a mobility center for unbanked residents to be able to connect with us, get an orientation on the network, and gain access to the network through alternate system. So, those that don't have credit cards will still have access to the system.

Next slide, please.

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

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

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

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

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

Next slide, please.

This slide is another of our young adults at Scrub Can learning about their truck in the
reclaimed water process in usage.

Next slide.

Again we weave sustainability and environmental justice into all of our programs.

So the photos on the top left is our ProsHer Women’s Program. We have an annual women of color business Symposium. And in 2019 and we had a great marketplace activity, and this past year we did Tesla test rides, which were extremely popular, and for so many it was the first time that they had been able to even get in a Tesla, let alone ride around in it. So very, very popular.

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

Next slide, please.

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

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

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

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

Thank you.

MS. MANRIQUEZ: Thank you, Tara.

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

She's a graduate of UCLA and joined Kern Council of Governments in 2006, serving as Ride Share Coordinator. Then she joined Current Energy Watch Partnership Coordinator, and today she writes grants and oversees programs.
supporting electric vehicle and infrastructure deployment, and organizes the Transitions Annual Transit Symposium.

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


MS. URATA: Now, can you hear me?

MS. MANRIQUEZ: Yes.

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

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

The CEC IEPR Workshop provides the
opportunity to understand the hopes for and
barriers to EV adoption in our disadvantaged
communities in the Central Valley. Their hopes
are for clean air for improved human health, the
environment, and air quality and conformity. The
public wants safe, flexible, reliable and
affordable transportation.

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

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

Public transportation and T’s and C-type
services desire sustainable operations that serve
the public safely and efficiently.

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

The barriers are many and often specific
to a location, industry, agency or person. These
include older electric infrastructure, transformers panels, transmission lines, that is expensive and takes time to update.

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

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

My slides are tipping.

Lack of capacity to apply for funding and manage projects exist. Funding agencies used to award grants to consultants outside the valley, and that does not build capacity in the region. And today, Jin mentioned partnering with CVO’s, and that's a good step.
These consultants spend time, or used to at least to have to have someone to come to the area, and there's no local staff that would also help with everyday conversations or community engagement, that is packaging or messages to target audiences that mainly are developing relationships and trust.

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

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

So, yeah, let's stay on the side for a second. Kern College provides the form that brings mayors, city council members and county supervisors together to work on regional issues.
in a setting that promotes the involvement of the public in the planning process for the current region.

Next slide.

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

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

This CALEnviroScreen map shows that our county is predominantly disadvantaged communities. Representatives to our board and staff committees often reflect the needs of the DAC’s. Environmental justice and social justice groups participate as members of the public. And you can see from this list that Kern COG uses a variety of methods to engage with the public. Environmental social justice group representatives frequently attend our monthly meetings and participate in the roundtables.

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

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

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

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

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

MioCar places EV charging stations and
EV’s at low-income housing in Kern and Tulare Counties to be used for hourly or daily rental. They plan to enter into a TNC Program in the coming year and to expand to other locations.

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

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

Next -- I’m all out of slides.

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

The 2019 Kern EV Charging Station Blueprint was funded with a grant from the CEC. I enjoyed working with Brian Campbell (phonetic).

You may find this on our website KernCOG.org
Kern COG partnered with the Center for Sustainable Energy. We established a work group to continue -- contribute to the plan development, inviting participation from EV enthusiasts, environmental justice organizations, member agencies, staff and others.

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

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

And then the blueprint identifies high-impact sites for EV charging in each of our 12-member agency communities. And we've created online toolkits for workplace destination, public institution, MUD’s, fleets and community-benefit organizations.

Workplace chargers still provides the
best opportunity we think in our region, and we are committed to seeing that ADA needs are met. I work closely with both air districts in our county, nonprofits and other MPO’s in the valley and state. The Valley Air District has the best incentive programs. Now we can tune in and tune up with the EFMP, Enhanced Fleet Modernization Plus-Up Program, conduct stellar outreach.

Project Clean Air manages the Clean Cities Coalition and the EV Partnership for the San Joaquin Valley. They’ve created and distributed toolkits for dealership sales teams.

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

Thank you for your time.

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

So next we have Enid Joffe. Enid is the President of the Green Paradigm Consulting. And from December of 2019 she was the President of the Clean Fuel Connection, one of the first EV
charging infrastructure companies in the US.

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

Go ahead and take it away, Enid.

MS. JOFFE: Thank you. Thank you.

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

Next slide, please.

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

Next slide, please.

My remarks are based on my two decades as
the owner of an EV infrastructure company, as well as my experience with a contractor with the Replace Your Ride Program of the South Coast Air Quality Management District.

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

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

Next slide.

The program is very well designed to encourage applicants to buy the cleanest technology, including zero-emission battery EV’s and fuel cell vehicles. In South Coast the program’s extremely popular. It is currently receiving 20 to 30 new applications a day, and
there are two other contractors in addition to myself, processing these applications. And I have five case managers, three of whom are Spanish speaking, and two from Chinese speaking, that work on these applications.

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

Next slide, please.

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

There are many excellent tools available, including the Clean Vehcles website, the utility
ownership, cost of ownership calculators. The clean vehicle rebate calculator, and the One-Stop Shop Program, just to name a few. And now what we need to do is make those tools accessible to the people that are applying to Replace Your Ride.

Next slide, please.

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

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

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

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

Next slide, please.

The second subject I wanted to address today is the challenge of providing charging for residents of multi-family dwellings. In my role as the owner of an infrastructure company, we've walked literally hundreds of multi-unit dwelling property. We're very familiar with the physical and economic challenges of these properties. I wish I had time to show you some of the pictures of some of the challenges that we face, but on
this slide you'll see a list instead of some of
the obstacles that we run into, including lack of
parking, lack of physical space in the electrical
room, old panels and wiring, an uncertainty about
which units or apartments are going to need
chargers.

Next slide, please.

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

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

Next slide, please.

A number of innovative approaches are
being tried by local governments and
infrastructure companies. A few of these are
listed on the slide.

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

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

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

Next slide.

Additionally, there's some other recommendations, such that have already been tried. Curbside charging, for example, on public streets. DWP has done this, and I think this is
a very interesting solution for areas that do not have a lot of parking. Car-sharing solutions, such as the ones spoken about by Tara, and some other options.

Next slide, please.

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

Next slide.

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

Thank you.

MS. MANRIQUEZ: Thank you. We appreciate that.

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

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

COMMISSIONER MONAHAN: Well, I just
wanted to thank all the panelists. This is a really fascinating discussion. And I do have some questions and I'm looking forward actually to the facilitating piece of this discussion as well.

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

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

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

MS. JOFFE: Good question. Initially we saw a big drop in the applications. And part of that was because dealerships closed. So people actually couldn't shop for vehicles. And I
should mention that a lot of the vehicles that are purchased are actually used vehicles. So, I'd say least half of them or more are used vehicles.

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

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

And I'm curious. I think a number of you actually are involved in this sort of community assessment. Like what are you -- what is some key takeaways from the communities that you've
engaged with in terms of what surprising mobility 
needs that you didn't expect, or that are more -- 
that you're seeing in a more -- you know, are 
there any threads of similarities between 
different communities that we can build from?

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

COMMISSIONER MONAHAN: Is there -- and, 
Tara, maybe this is a question for you. In terms 
of the shared mobility solutions that you're, 
that you're testing out, what are you finding in
terms of uptake -- I mean, this is in a pre-COVID land. All bets are off right now until we have a vaccine. But just in the pre-COVID world, what were you seeing in terms of uptake and receptivity to shared mobility, you know, shared vehicle?

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

I think that there was a misnomer that maybe communities of color or people of color didn't care about those things. And so I think that what we are learning is that there's a huge appetite in our communities for this information, for access to affordable electric vehicles. For access to charging infrastructure. And, of course, we know that the charging infrastructure
will determine, you know, long-term adoption and
satisfaction and all of that.

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

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

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

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

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

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

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

COMMISSIONER MONAHAN: Well, I guess that was another question I had, too, is that, you know, where there's a shared vehicle that's just
your standard like family size vehicle. There's
the van size, then we have a lot of micro
mobility, micro e-mobility choices. And there --
I'm curious about what -- how you all are
thinking about these various choices and the
level of interest that different communities
have, especially in micro-mobility alternatives.
And what's your thinking on, on that?

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

So, I think for me it's, you know, we're
still trying to find what's going to work for
micro-transit, and so we're trying everything and
listening to the communities, and trying to meet
the needs of the individual or the community,
which is often challenging, but that's kind of
where we are today.
MS. GRAY: And I would echo, Linda.

We're not there yet on our project.

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

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

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

COMMISSIONER MONAHAN: Yeah. I mean, and definitely there’s a generational divide in that receptivity to micro-mobility. I know I'm
nervous about those two ladies that wants -- and I thought I was going to hurt myself.

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

Thanks, everybody. Thank you.

MS. GRAY: Thank you.

MS. URATA: Thank you.

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

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

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

MR. ZHU: I guess I can start. From my experience, I think, like I mentioned earlier, I
think our communities are very well aware of the
benefits, you know, of electric vehicles.
Depends on its region. Some of the smaller
benefits, like you can be in the HOV lane by
yourself probably this apply to the Central
Valley, is that there’s not that much HOV lanes.
But as for like the environmental
benefits, I'm -- I will say, 100-percent of our
audience understands that it brings cleaner air.
It brings improved air quality. Because a lot of
those -- these folks that live in these
communities have high asthma rates. But the
barrier, like I mentioned earlier, is that they
always see the electric vehicle as a rich
person's vehicle. The price is too high. The
electricity, they worry about their electricity
bill is going up.
So one of our strategy is we always use
our savings calculator on the field to let folks
know that how much exactly they can save depends
on their location, depends on their income, and
also that there is many different varieties of
vehicles out there besides the Tesla.
Obviously Tesla is up there, but there is
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.

69
And so these are some of the things through our uptake project that we have with CEC that we are doing to make the community aware of the benefits, but then also the lifestyle, lifestyle changes. And, you know, how you plan your trips differently and all of that. And just do -- the way to incorporate it and other technologies, other sustainable technologies. I mean, if you have a have solar on your house and driving electric vehicle, you know, you are really, really reducing your carbon footprint.

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

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

I'm old enough that I remember having to
launch hybrid vehicles, and we used to bring them out to street fairs and all kinds of things. And even then the dealerships would bring out like their big Chevy truck and their little hybrid car, and they would try to sell people the big truck.

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

MS. JOFFE: And I would --

MS. URATA: Go ahead.

MS. JOFFE: -- comment that I think infrastructure is still absolutely baffling to people, and I think we need to address that.
Because a lot of people who are looking for a car, the car -- buying the car, that's the sizzle. To buy -- the infrastructure isn't sexy.

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

MS. URATA: At times that --

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

MS. URATA: Okay. Go ahead.

MS. GRAY: -- if I could just one more point. And we've got to speak to everybody in terms of access. We’ve got to make sure that there are smartphone accessible applications and that there are considerations for the unbanked and underbanked. So I think that those still play when it comes to mobility systems, shared mobility systems and micro-mobility. I think that those are still factors.
MS. URATA: For us, we go out to community events and we'll bring out maps and have people put dots on the map as to where they want to see the infrastructure. And then what we find is we go out the next year with our dot maps and we have people who come back and they say, but you didn't build the one we asked for last year.

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

MR. ZHU: I just want to add to Linda’s point about dealerships. We recognize that over here at the Clean Vehicle Rebate Project. We actually have a dedicated leadership team that all we do is talk to all the -- I think there’s like 1,800 new car dealerships throughout California. All they do is, we provide -- we do dealership in-person training. Obviously that's pre-COVID. But we go into the dealership, try to
make the process as easy as possible for these
dealerships because they -- there’s so much
different programs, especially when it comes to
electric vehicles. We gave them little one-
pagers. So it takes the incentive side all of
their hands. That way just makes it easier for
the transition to happen.

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

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

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

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

MS. MANRIQUEZ: We're making --

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

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

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

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

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

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

So, I think we really need to help local governments have the tools to understand why they need to encourage charging, where it should go,
and to help the landowners and property managers
to install charging.

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

MS. URATA: A couple things I wanted to
add are -- that were hindrances, for instance,
with public schools, was having a policy if the
-- you know, the air district was asking that the
chargers be installed, where they were accessible
by the public, and a lot of our schools, all of their parking lots are accessible by the public.

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

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

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

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

Security. When we first opened up charging stations at the Hispanic Chamber in Fresno, they were constantly being vandalized for their copper. And so one -- and so the only
solution was going to be to have to pay for fence, to completely fence in their parking lot. And they didn't have the budget, so the charges were all turned off. So those were some obstacles that I don't know that we really truly eliminated.

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

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

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

MS. GRAY: Well, Linda, you are spot on.
And we were fortunate enough to be able to replace those chargers that were turned off. Yes, in our project we replaced them. And guess what, there's a fence, but it's open, but it's open all day during the day. And it really wasn't because of the chargers, it was really due to something else I think that they just decided to put it in. But nonetheless, we were fortunate enough to be able to replace those, those chargers, but you are spot on.

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

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

MS. URATA: To throw quick on that. The
governor's GO-Biz office now has a map for streets -- permit streamlining and showing which counties are ready for EV’s, from station permitting streamlining. And I'm happy to say that Kern County’s on the green. We're ready for permit streamlining. But in working -- we plan to be working with Kyle and at the governor's office. We're going to be inviting him to talk with all of the COGS, who then reach out to all of the local governments.

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

MS. MANRIQUEZ: Thank you for that work, Linda. That’s really important, so we appreciate that for sure.

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

MS. URATA: I'll go. We still see that
workplace charging is important for the area. And destination, local businesses, destination type charging, whether it's at a gas station or at a grocery store, those are still two of the most requested locations for charging stations when we go out.

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

MS. URATA: You’re welcome.

MR. ZHU: Yeah. And once they see, once the younger folks see there is charging stations, they might even start looking into obtaining a
electric vehicle as well. So I think that those are some areas I would recommend.

MS. GRAY: I think --

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

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

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

MS. URATA: To me a sign of that change is my daughter drives a Chevy Bolt and is she
lives down in San Diego and drives up here to Bakersfield to see us. And she can actually now cost compare.

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

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

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

MS. URATA: I think Enid had some really
great information on her slides about considerations for MUD’s, and I appreciated that.

For us, when we were putting in the electric carshare stations, it was finding enough space close to a panel or source, that could also be where we could install ADA type of parking.

So that's a huge consideration.

MS. JOFFE: I didn't --

MS. URATA: I did --

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

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

I was wanting to hear more about your expertise on land use issues and having PowerFlex as a potential interim solution, while we figure out what to do with building codes. And we also discuss like an amnesty program as well on like building codes as well. If you can tap into that conversation of it, I would really appreciate
MS. JOFFE: Sure. Yeah, thank you, Pilar. Yeah, I think we've all been sort of beating our heads against the wall about the MUD's, because it's such a difficult problem. And, you know, and now we're starting to see some creative solutions. I agree the PowerFlex solution and the Charge Point solution are good. Several organizations have tried like membership fees. Those haven't worked out very well because people don't really want to be tied to a monthly fee, not knowing, you know what it's going to be, how much they're going to use, and that's been less successful.

But I do think, ultimately, we've got to take a deep dive into the building codes and the electrical code, because there are some things that I think could be re-examined. For example, as an installer, one of the things that we encountered was that we went -- when we went in and did solar and energy storage in some buildings, we still had to provide the same level of grid-connected electrical capacity as we did without the storage and solar. So, basically, there was no savings. Because even though the
hope was you wouldn't ever use that that, you
know, that grid-connected electricity, you still
have to comply with it. And that's actually in
the code. So, I think we have to get to the
source of the issue, which in some cases is the
code.

Now, in the meantime, the point about an
amnesty program. Anyone who's, you know, good in
local government has probably heard about the
granny-flat laws, where in order to help increase
on affordable housing, a lot of communities have
offered amnesty for second units on their
property that were built illegally at the time.
And I think something similar could be
done for EV charging, is to not scare people off
by saying, this is going to cost you, or man, if
they see those paint cans to the electrical room,
you're, you're going to be in trouble. But to
provide a more consultative approach and help
people figure out how to do it and maybe provide
some waivers. Of course, we have to deal with
public safety. That's critical. And that's why
I suggested maybe a fund of some kind or a
revolving loan fund, or something similar to what
-- the financing solar. So, I think we have to
address it. It's a serious problem and we won't
get too far without addressing it.

MS. MANRIQUEZ: Thank you. I appreciate
that.

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

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

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

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

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

MS. MANRIQUEZ: Thanks, Tara.

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

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

MS. MANRIQUEZ: That’s great. Were there lessons learned from community decision making
during this process that you'd like to share?

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

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

MS. MANRIQUEZ: Thank you for sharing.

This next question is for Jin. Jin, in your culturally appropriate education and awareness campaign in your previous work at CSE, where there any specific program or specific ways to engage community that made electric vehicle and charging stations more appealing? Like tabling can be hard and engaging folks with new
technology in itself can be challenging. So feel free to share your experience in that way.

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

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

Our banner has always been one of our best thing, if you remember in my slide, that it has the list of all the different vehicles that's out there, that qualifies for the state rebate, whether it's fully electric vehicle, plug-in hybrids and fuel cell and electric motorcycle.
So one of our -- all the comments people says, wow, I didn't know that there's that many different electric vehicles out there. The only thing I've heard of is Tesla. I didn't know Chevy has one. I didn't know Hyundai and Kia have both electric and plug-in hybrid, right.

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

Thank you.

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

MR. ZHU: I think I will. I'll go first. It's like I said in our slide, that it is community-based organizations. These folks are the faces on these communities. They are -- everybody goes towards them for any kind of
advise, whether it's for transportation advice, whether it's for maybe food or shelter or health insurance.

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

MS. MANRIQUEZ: Thank you.

Tara, did you want to share something?

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

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

Unfortunately, many times our communities are forgotten or disinvested. And so to be able to be on the cutting edge of this, I mean, we are just so proud to be able to do this work, and to
be able to represent CEC in the community and
marketing work and, you know, SGC on the on the
TCC work.

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

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

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

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

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

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

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

MR. BOBADILLA: Thank you, Heather.

And this question is from Mary Brazil (phonetic), and it's not directed to anyone specifically to the panel. But what are the innovative, accessible ways to engage participation from disadvantaged communities?

Several environmental justice organizations have great interest, but little bandwidth to participate in typical advisory group meetings.

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

MR. ZHU: Yeah, I just want to echo that. Food. Food is number one. I know that a lot of
our -- yeah, a lot of our CBOs want to do workshops, because folks work. They work 9:00 to 5:00 and no -- and your workshop starts at 6:00 p.m. No one is going to be, had the ability to have dinner, come to the workshop, and the workshop tends to be an hour. So food, childcare, all of those are very important if you want to increase the community participation for sure.

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

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

We have seen a lot of financing mechanisms tried for charging, and most of them
have not worked. We even tried to use the low carbon fuel credits that are generated by the charging. Those have like 10-year payback, and most investors are looking for a three, or max, five-year payback.

MR. BOBADILLA: Thank you, Enid.

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

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

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

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

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

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

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

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

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

MS. URATA: Yeah. I'd say that's the case. Obviously as a COG we do a lot of transportation modeling, but we also do work in
the communities like traffic counts, for
instance, to show us where the traffic is that
informs the model at a state, you know, to make
it more localized, as well as look and having
input from all of our local governments, because
they're the ones that are intimate with their
general plans and know where things are going or
coming up.

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

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

And so to the extent that we can deploy
tools that will help with, you know, contactless
payment and those kinds of things, and I know that we are -- that's a consideration that we are now looking at. We're looking at a product made by ZED Digital now that has a whole contactless payment system, and everything in it is because we feel that we've got to now address that whole public confidence piece, too. And I know that doesn't have anything to do with infrastructure, but it certainly has something to do with the overall success of all of our systems.

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

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

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

And if you're on the phone only, then
just press star nine and that will effectively, raise your hand. And RoseMary Avalos from the Public Advisor’s Office at the Energy Commission is here to help us with the public comments.

So, go ahead, RoseMary. Thanks.

MS. AVALOS: Thank you, Heather.

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

Sara Rafalson, your line is open.

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

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

I think one thing that we've seen, which
is an unintended program design consequence, is
that 24/7 access requirements for any
infrastructure programs really limit the ability
to install in dense urban areas, because they
don't typically have the surface lots that you
may see and in Sacramento or other kind of more
-- other areas that are maybe a little bit less
dense.

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

MS. AVALOS: Thank you, Sara.

Our next commenter is Charlie Alcott.

Please get your first and last name and spell
your name. Your line is open. Charlie Alcott.

You may need to unmute on your end. I see that
he's not -- okay. Charlie, you may need to
unmute on your end and -- okay. There's some
difficulty with a meeting, and just want to give
a reminder that for those on the phone to dial
star nine to raise your hand, and star six to
mute and unmute your phone line. I'm going to
give it a little bit of time to see if there will
be more raised hands.

(Pause.)
Seeing there are no raised hands, that concludes comments. I'll turn it to you, Commissioner Monahan.

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

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

Thanks everybody.

(The workshop concluded at 12:00 p.m.)
CERTIFICATE OF REPORTER

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

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

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

_________________________         December 10, 2020

MARTHA L. NELSON, CERT**367

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