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BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the matter of,)) Docket No. 17-IEPR-08) 2017 Integrated Energy Policy) Report (2017 IEPR))

JOINT AGENCY WORKSHOP ON SENATE BILL 350

LOW-INCOME BARRIERS STUDY IMPLEMENTATION

CALIFORNIA ENERGY COMMISSION

FIRST FLOOR, ART ROSENFELD HEARING ROOM

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

TUESDAY, AUGUST 1, 2017

10:00 A.M.

Reported By:
Peter Petty

APPEARANCES

Commissioners

Robert B. Weisenmiller, Chair

Karen Douglas, Commissioner

Andrew McAllister, Commissioner

Janea Scott, Commissioner

Emilio Camacho, Chief of Staff to Commissioner David Hochschild

CEC Staff Present

Heather Raitt, Integrated Energy Policy Report (IEPR) Program Manager

Michael Sokol, SB 350/AB 802 Implementation Coordinator

Joint Agency Participants

Martha Guzman Aceves, Commissioner, California Public Utilities Commission (CPUC)

Ashley Dunn, California Air Resources Board, (CARB, ARB)

Presenters

David Fogt, Contractors State License Board

Panelists

Panel 1

Melicia Charles, Moderator, CPUC

Allen Fernandez Smith, Pacific Gas & Electric (PG&E)

Aaron Renfro, Southern California Edison (SCE)

Erin Palermo, Southern California Gas Co. (SoCal Gas)

Timothy Tutt, Sacramento Municipal Utility District (SMUD)

Jamie Asbury, Imperial Irrigation District (IID)

Beckie Menten, Marin Clean Energy (MCE)

APPEARANCES (CONT.)

Panel 2

Tyson Eckerle, Moderator, Governor’s Office of Business and Economic Development

Tanya Little, Department of General Services (DGS)

Stephanie Green, CPUC

Simeon Gant, Green Tech Academy

Stephanie Chen, Greenlining Institute

Angelica Tellechea, Brownstone

Panel 3

Erik Stokes, Moderator, CEC

Catalina Lamadrid, Inova Energy Group (Via WebEx)

Ismael Herrera, BlueTechValley Innovation Cluster

Ed Lopez, Groundwork San Diego-Chollas Creek

Jon Harding, Charge Bliss

Panel 4

Robert Ridgely, Moderator, CEC

Anne Arquit Niederberger, Enervee

Lisa Schmidt, Home Energy Analytics

Joy Pixley, UC Irvine California Plug Load Research Center

Marti Frank, Efficiency for Everyone (Via WebEx)

Also Present

Mayda Bandy, San Diego Gas & Electric (SDG&E)

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P R O C E E D I N G S

AUGUST 1, 2017 10:04 A.M.

MS. RAITT: So, folks can go ahead and take seats, we're going to get started, please.

So, welcome to today's Joint Agency Workshop on Senate Bill 350 Low-Income Barriers Study Implementation. I'm Heather Raitt. I'm the Program Manager for the IEPR.

Just a few housekeeping items, restrooms are in the atrium, at the doors to the left of the hearing room.

If there's an emergency, please follow staff to evacuate the building to Roosevelt Park, which is across the street, diagonal to the building.

Please be aware that today's workshop is being broadcast over our WebEx conferencing system. It's also being recorded. And we'll post an audio recording in about a week and a written transcript in about a month.

We do have a very full agenda. I'd like to thank our many speakers for being here today and ask that you do try to stick to your time limits.

At the end of the day we'll have an opportunity for public comments, and we'll be limiting those to three minutes per person. You can go ahead and fill out a blue card, and give it to me, and let me know if you'd like to make comments at the end of the day.

We'll also have an opportunity for WebEx and the folks on the phone to make comments. You can just tell our WebEx coordinator, using the chat function that you'd like to make comments. And we'll open up the phone lines at the end.

Materials for the meeting are at the entrance to the hearing room and available on our website. Written comments are welcome and due on August 15th.

And with that, I'll turn it over to the Commissioners for opening remarks. Thanks.

CHAIR WEISENMILLER: Good morning. I want to thank everyone for their participation today. This is our second workshop following up on last year's effort on low-income barriers. We wanted to really make sure we had the time to dive into some of these in-depth following up. And so, appreciate you being here.

This is obviously a high priority for us and again, looking forward to a good workshop.

Janea?

COMMISSIONER SCOTT: Good morning, everyone and welcome. Thank you so much for being here with us today. As you know, this is -- or, I hope that you know, this is a second in a series of two, but potentially more workshops, where we will be digging into the barriers that the Energy Commission identified to low-income communities being involved in renewable energy and energy efficiency.

This was a report that we issued at the end of the year last year. It included 12 recommendations. Our first workshop on this, which was in May, we talked through some of the solutions to the barriers and we are continuing that discussion today.

So, I'm very much looking forward to it. Thank you, everyone, for being here.

COMMISSIONER GUZMAN ACEVES: Good morning, everybody. This is Martha Guzman Aceves from the California Public Utilities Commission. I also just wanted to share that a few weeks ago, at the Public Utilities Commission we did have an en bank, as well, on environmental justice.

I know a lot of you participated. I definitely want to thank the CEC staff who was there and Alana did a great job on presenting the Barriers Report. And we talked about how to incorporate environmental justice in our world and in specific proceedings.

So, I know a lot of the recommendations that have been outlined in this study are a part of that. And I just want to encourage everyone about continuing to participate in our processes, as well.

I'm really looking forward to taking some of these recommendations and making something happen with them. Thank you.

COMMISSIONER MCALLISTER: So, this is Andrew McAllister. I'm the lead on energy efficiency. And I think all five Commissioners in the Energy Commission participated, really, in the development of the Barriers Report. You know, we all have a special interest in making sure that we do find ways to incorporate disadvantaged communities, low-income populations, and just the full diversity of the State into all of our programs. And certainly know that that applies over at the CPUC, as well, and we're all committed to working together on that.

There are, you know, many barriers. I mean I think the 12 recommendations are certainly valid, but they all need to be deepened in ways that operationalize the solutions. And so, it's not an easy area.

And I think, certainly politically, and just because it's the right thing to do there is ever more attention on making absolutely sure that as we aim for the very aggressive goals, and the sort of leadership position that California has, that they express, figuring out to really bring along our entire population and make sure that it participates in this economy that we're building. Because there's really no way that we can declare success in 2030, 2040, 2050 if we haven't done that.

And I think it's self-evident, really, but I think there's been too little effort across the years. Even though there has been a lot of effort and you are all really core to that effort, I think resources and sort of ongoing attention at the highest policy levels is really what's needed to get us there.

So, we're committed to this and the Barriers report is a big step in that direction. But it's going to take a lot of work, together, for all of us. So, I'm happy to have this second workshop and, you know, continue down this path.

COMMISSIONER DOUGLAS: You know, I'll just add, briefly, I strongly support the comments made by all of my colleagues here. And, you know, as Commissioner McAllister said, all of the Commissioners at the Energy Commission were very involved in the Barriers Report, and participated in workshops, and reviewed it, and really thought about the issues.

And there's no way that we can be successful without reaching out and ensuring that disadvantaged communities around the State enjoy the benefits of clean energy in the clean energy economy.

And so, it’s really essential that we find ways to do that. And we take this Barriers Report and we study it, and we sort of think about how we frame it into an opportunities report, where we really take the step of working with, you know, the advocates. Working across different constituencies, and really understanding how to develop and target programs that will be successful in many of the communities where these programs have had a harder time getting established or, really, have had a harder time getting off the ground.

And so, we need to see really strong results across the State. And we particularly need to focus on understanding how to bring this to scale in disadvantaged communities. So, we’re delighted to be here today.

MR. CAMACHO: Emilio Camacho, here on behalf of Commissioner Hochschild, who just wanted me to relay that he remains committed and looks forward to continuing to work with all of our colleagues on the issues that are important to disadvantaged communities and low-income communities.

MS. RAITT: Okay, thank you. So, we have two presentations to give us an update on the Barrier Study Implementation Activities. First is Michael Sokol from the California Energy Commission.

MR. SOKOL: All right. Good morning, everyone, and thank you for joining us today. I'm Michael Sokol, with the Energy Commission. And I'm the SB 350 and AB 802 Implementation Coordinator, which includes a number of activities, but one of those being implementation of the Low-Income Barrier Study.

And so, I'm just going to provide a quick update on some of the key activities and items that are currently underway, not only here at the Commission, but with the other agencies that we've been coordinating with, very closely, to implement the recommendations from the study.

So, just to put things in perspective, it's sort of a pretty lengthy continuum of different efforts to target benefits for disadvantaged communities. But SB 350 really underscored the importance of making sure that those benefits were a key priority throughout a number of programs, administered not only here at the Energy Commission, but at the CPUC, and at the Air Resources Board, as well.

And so, you know, the story begins well before this slide here, but this just shows a little bit of a timeline. Starting with the Energy Commission, we published the study required in SB 350, last December.

And that sort of kicked off the implementation phase of this whole effort. So, there were some key recommendations in that study and we heard about some of those on the May 16th workshop, earlier this year.

We're going to hear some conversation about another subset of those today, and kind of follow up on some of the discussion items from the May 16th workshop.

Following up the Barriers Study Part A being published here at the Energy Commission, the Air Resources Board published Part B of the study, which was focused on low-income transportation options. And that was in April of this year was the draft guidance document was released.

And so since then, in line with the recommendations from our studies we've been working very closely to coordinate on how best to implement these recommendations, not only with the agencies that are represented here today, but with many others that are impacted by the recommendations, and play a supporting role.

So, the first recommendation from the Energy Commission study was this task force. And we heard last workshop about some of the details of this task force. But we continue to coordinate across a number of agencies and make sure that everyone is on the same page on how best to proceed with implementation.

And we had the workshop on May 16th, like I mentioned. And I'm going to highlight a couple of the key takeaways as I move through the slides here.

You heard about the Public Utilities Commission had an en banc on disadvantaged communities just earlier last month, which is very relevant for today's conversation. And we'll hear a couple of the key points from that later today.

And then today is the second workshop here on barriers implementation. And again, this is really just another point along this big trajectory of how to bring these priorities to the existing programs and future programs. And we're looking forward to teeing up some very good conversations that are, hopefully, going to continue to yield benefits as we move forward.

So, as I mentioned, the task force, we're continuing to meet on that and we have an upcoming meeting. Actually, tomorrow will be our second meeting here.

The Air Resources Board is continuing to conduct extensive outreach and they're going to do some community meetings. They're going to talk a little bit more about that. In just a moment you'll hear from Ashley Dunn.

From the Energy Commission perspective, we're really prioritizing the development of energy equity indicators to be used in tracking progress on this overall effort. And so, we heard about that last time around, but we're now currently working to develop a revised draft of this framework paper that will be published later this year, ultimately leading up to publishing a tracking progress report that kind of summarizes some key snapshots of the status that will be used to track progress over time as we move forward.

And then beyond that, again, there will be a number of activities; too many to list here, but just wanted to give a quick update of that timeline.

So, at the last workshop, on May 16th, again we heard about the formation of this task force and the need for really close coordination across a number of agencies, and with a number of stakeholders throughout the State.

And under that large umbrella of coordinating amongst agencies there was a discussion about a need to really focus on solutions for multi-family buildings, and looking at potentially how to solve some of the issues with split incentives. And make sure that building owners and occupants are both able to benefit from clean energy.

We heard a lot about strategizing on a green workforce and education strategy across several agencies, and there was a good discussion there.

We heard about the need to continue developing energy upgrade financing pilots. And some of the proposals that were included in the Barriers Study were discussed at the May 16th workshop.

Again, we heard about the need to establish common metrics and use data better across programs to help set goals, and track progress, and continue to increase performance across the State.

And then there was a discussion about a regional one-stop-shop pilots that were a recommendation from both the Energy Study and the Air Resources Board study.

So, just to give a little bit more on some of the key takeaways that we heard at that last workshop, for multi-family buildings, again this is a strong priority that we heard for the agency coordination that’s needed, and coming up with key actions that can be taken to help address the split incentive issue, and unique issues faced by multi-family buildings and renters.

We heard it’s really important to engage with building owners and make sure that they have an incentive to participate, or else it doesn’t sort of move the needle enough.

We heard a discussion about needing kind of multi-year program funding to provide a little bit of market certainty and make sure that programs can plan accordingly.

A little discussion about kind of some of the technical assistance needs and one-stop intake to make things easier for renters and building owners to pursue energy upgrades.

And really, I mean this is key across all of the recommendations, but we heard the need to leverage lessons learned from existing programs. Not only within the State of California, but elsewhere throughout the country, other states or municipalities that have really shown some progress in this area.

And, you know, this is really just a quick snapshot. There was a lot more in the discussion and there's a lot more on the record of the May 16th workshop. So, we'll be looking at how to report out on that as we move forward a little more detail.

The second key topic here was the need for regional one-stop shop pilots to provide information and resources to local residents in disadvantaged communities.

We heard about a combination of online and a brick and mortar presence, or something that was coined as “bricks and clicks” which seemed to stick with me.

A very strong partnership need with local organizations to make sure that you’re engaging with really the specific needs of the community, and understanding what their priorities are.

Strive for transparency and making sure that lessons learned and information gets out quickly, so there’s that really strong connection with locals.

And, again, looking at existing programs that have strong some success that may be leverage for this and one of those that was mentioned explicitly was the CSD’s LIWP program, to look at the model and ways that we may be able to leverage. But there’s also a number of other possibilities.

And so, again, it was a really good conversation. It’s actually recorded on the Energy Commission’s website and all the presentations are posted as well. This is just quick summary of some of the key points.

And the Green Workforce strategy, again, this was a great conversation led by the Workforce Development Board, and good questions from Commissioners throughout the process.

But there was a priority placed for making sure there's coordination across not only the energy programs, but transportation programs, and striving for consistency across the board.

Looking at, really, training should be driven by demand and making sure that there are jobs that are available for people that are going through training. So, looking at things like pre-apprenticeship, and apprenticeship programs, and making sure that there's that avenue for really career developments and family-sustaining jobs.

And then making sure that there's perspective from businesses, in addition to the community benefits that can be enable by, you know, a Green Workforce Development strategy.

And there's lots of other key points again, in there on the record, but these are just a few.

And looking lastly here at financing pilots, so a great discussion about some of the suggested pilots from the Energy Commission study, but overall theme was that there needs to be more creating market solutions and looking at public/private partnerships wherever possible.

A great discussion about tariffs, the on-bill financing, and some potential that has been shown in an Arkansas case study.

Looking, again, that California should leverage lessons learned from other states. For example, that Arkansas study but several others that were mentioned as well.

And then, looking at the ability for financing to create additional jobs and create some of the additional benefits that are highlighted throughout the Barrier Study.

And, of course, we heard about some of the existing utility programs. We're going to hear a little more discussion on some utility efforts today. But, really, highlighted that there's a big diversity amongst the existing utility programs, but there's really more options needed across the board, and we really have some work to do.

And lastly, just highlighting again the Energy Equity Indicators effort we published, in May 2017, this initial staff draft paper with a framework, 12 proposed indicators. And we talked about those in a little detail at the last, the May 16th workshop.

But now, looking forward, we're going to post a revised draft sometime late this month or early next month, solicit additional feedback, and then look to develop a tracking progress report by the end of this year.

And, you know, this is really exciting because this is actually just announced today. So, as a matter of fact there's a requirement in SB 350 for the Public Utilities Commission and the Energy Commission to develop a joint advisory group that consists of representatives from disadvantaged communities, that looks at reviewing and offering advice on programs that are proposed under SB 350.

So, a draft framework was just posted today or will be posted very shortly here, if it's not already online. We actually have some key questions in that document that are posed for stakeholders. And we're really looking for comment back from interested folks and key stakeholder groups to make sure that we have, ultimately, a proposal that's going to meet the requirements of SB 350 and yield the greatest benefit.

So, I wanted to note here, as well -- unfortunately, it looks like the link's wrong on the slide here. So, there's an updated link. We'll make sure that the posted version has an updated link to that. But the comments are going to be due by the 15th of August on that draft. And there is a new web page that's going to be live just a little later this morning, as a matter of fact.

And it's energy.ca.gov/sb350/dcag. Again, we'll make sure that that gets updated in the posted version here. Just a little bit of a version mix up issue here.

But wanted to highlight that for everyone. We really hope that there's a lot of comments received. And again, you can reach out if there's any questions about how to comment or where the appropriate website is for that. But comments will be due on the 15th.

Going forward, so today here are the key discussion topics that we're going to focus in on in today's agenda. We're going to hear a lot about the utility efforts to enable benefits for low-income customers in disadvantaged communities, and really engage with local community groups and residents.

We're going to hear a presentation about the need for heightened consumer protection and some of the key issues that are highlighted throughout the clean energy economy related to consumer protection.

We're going to hear some projects from the research, development and demonstration side that are looking at enabling specific benefit streams for low-income customers in disadvantaged communities.

And then we're going to hear about some of the issues faced by small businesses in disadvantaged communities and contracting opportunities. And, you know, the Energy Commission recommended a follow-on study to the study that we published that looks in a little more depth at some of those. So, today's conversation will point a little more to some of the potential solutions and help provide some guidance on moving forward with a follow-up study.

And lastly, we're going to hear about some plug load efficiency opportunities for low-income customers. And, really, that's a follow-up on the multi-family building discussion that was held at the May 16th workshop, to get a little more into the weeds of plug load opportunities. And, really, how better use of data can help drive that conversation forward.

So, beyond today, as I mentioned in the kind of first slide there, the Energy Commission will continue to participate in the task force meetings moving forward, you know, facilitated by the Governor's Office.

Both through the task force and otherwise we're going to coordinate very closely with the Public Utilities Commission, the Air Resources Board, and a number of other agencies, both at the State level, at the local level, key stakeholder groups.

You know, we realize that this is a huge effort and it's really going to be a collaborative opportunity moving forward.

Looking at additional regional community outreach, participating where it makes sense with the Air Resources Board's efforts, or potentially looking at some of our own efforts to return back to the communities and provide resources and follow up on what we heard during the scoping of the study.

As I mentioned, looking at tracking progress on the SB 350 goals and the Barrier's recommendations.

And then, you know, the overarching umbrella here is the Energy Commission's Integrated Energy Policy Report, which is this is an IEPR workshop today. And so there will be some key reporting sections in the 2017 IEPR that look at SB 350 implementation and the Barrier Study.

So, I'll go ahead and leave it there. If there's any key questions or comments from Commissioners, if not I'll go ahead and turn it over to Ashley Dunn to present for Air Resources Board.

COMMISSIONER GUZMAN ACEVES: Thank you, Michael, excellent summary and presentation.

I just wanted to reiterate that one of the things we're really looking forward to in collaborating with the CEC is on the Disadvantaged Community Advisory Group -- or is it working group? So many acronyms. The group. To really inform us about how we start to carry out these recommendations.

And as Michael mentioned, the posting of the framework for comment is up and, hopefully soon we'll have a posting for information on recruitment, so we can actually get the body formed. So, keep an eye out for that.

MS. RAITT: Okay. So, next is Ashley Dunn from the California Air Resources Board.

MS. DUNN: Thank you very much, Michael. Good morning everyone and good morning to the Commissioners.

My name is Ashley Dunn and I'm the lead staff person overseeing the SB 350 Clean Transportation Access efforts at the California Air Resources Board.

Since we're here today to talk about our joint efforts with SB 350 implementation, we wanted to take this wonderful opportunity to provide you with an update regarding our efforts and ongoing activities, both as we work to finalize the guidance document later this, but also as we continue to move forward and make progress with implementation.

So, as part of our ongoing SB 350 joint implementation effort, we're coordinating very closely with the Energy Commission and the Public Utilities Commission, as well as the other State and local agencies that Michael referenced earlier as part of our ongoing efforts with the task force.

So, over the last few months since our draft guidance document was released for public comment back in April, we’ve been prioritizing our clean transportation recommendations to be implemented over the next two years. And, really, want to start to show progress and benefits in low-income and disadvantaged communities.

So, based on the priorities we’ve identified, we’ll be reviewing potential metrics for success. And these are kind of similar to the indicators that Michael referenced.

So, we’ve received a lot of suggestions for existing resources that might be available for these metrics, and we’re also trying to be really creative in our approach because we realize that we want these metrics to be both meaningful, and measurable, as well.

So, this effort on the metric side will continue in close collaboration with the Energy Commission since our main recommendations, as you’ll hear in a minute, really overlap with each other, which is actually a really wonderful thing.

So, right now we’re working to finalize the guidance document. It will include these priority recommendations, as well as our longer-term plans for what we plan on doing with the other recommendations included within our draft report, because there are quite a few.

So, we'll continue to plan for and help with the Governor's Office Task Force. And we'll also be moving forward with our relationships with the lead and supporting agencies for each of those recommendations, and especially the ones that are priority because we want to make sure we can make some progress.

So, based on the recommendations that were included in the draft guidance document, and what we've heard in our work directly with the communities, which I think is equally as important, we've narrowed down four main priorities for increasing clean transportation access. And these are the ones that we want to try to focus on for the next two years.

So, just a quick note, these are very preliminary in the sense that we want to continue discussing with the State agencies. We're still working on a plan for going back to the communities to talk to them about these priorities, to see which ones they think are most important.

We also will be continuing to discuss these through our broader public process this fall.

But with that said, I want to just walk really quickly through these four that we've identified. So, the first one’s actually directly related to some of the efforts at the Energy Commission, which is really working to conduct and expand assessments of clean transportation, and mobility needs. And the reason for this is we want to ensure that low-income and disadvantaged community feedback is incorporated into the planning process.

Secondly, and this is a really critical component, is the need to increase awareness. And that’s of clean transportation and mobility through targeted education and outreach.

Thirdly, the need to really identify, but also expand funding for clean transportation. And then, also, designing competitive solicitations in a way that’s very inclusive of folks within rural, tribal and urban communities. And also small businesses, we want to make sure we remember small businesses and promote equitable competition when it comes to how we’re designing our grant and incentive programs.

So, please note that not all of these recommendations have the California Air Resources Board as the lead agency. This will take a lot of efforts on the part of the other State agencies, as well.

We want to make sure we understand very soon what can be done within each of these priority recommendations and make sure that they're actionable, which includes making sure the right parties are involved. So, that's why we really want to continue with our public process.

So, we're working closely with the Energy Commission on these recommendations, especially the ones that I want to highlight here, which is expanding assessments, increasing awareness, and the design of the competitive solicitations.

But I also want to make sure it's clear that we're working with the Public Utilities Commission, as well, specifically on the increasing awareness because they are listed as a lead agency as part of that effort. And so, that's a really important collaboration that we see ongoing into the future.

So, really quickly, I'm going to walk you through each of these recommendations in a little bit more detail, just to kind of give you a sense of what we're talking about.

So, the first one, as I mentioned, is the need to conduct and expand assessments of unmet clean transportation and mobility needs, which is really the primary comment that we heard when we went out to the communities last year, as part of our engagement.

And, really, it was also one of the key thing we heard through our public process, as well.

So, communities want to ensure that their voices are heard as we're making clean transportation and mobility investments across the State. And they also want us to really look at what are the gaps so that we can really allow for equitable access across the State, as well.

So, this recommendation involves directly engaging with and partnership with the community-based organizations that really have the trust and the knowledge base to really understand what those localized needs are.

So, the next one is the need to increase awareness, which includes access to information, exposure to clean transportation and mobility options across the State. This is really critical for overcoming the barriers that we've identified in the draft guidance document.

And just to kind of highlight for you, this is also one of the priorities when you're looking at the Zero Emission Vehicle Action Plan that was developed.

This recommendation includes a multi-pronged approach, which is twofold. Developing a strategic community outreach plan that's really specific to the community needs and making sure that that's culturally relevant, as well.

But also, as Michael mentioned to you earlier, creating regional one-stop shops for clean transportation projects, workforce development which would include job and training opportunities, and making sure we're making connections to good quality jobs. As well as not just looking at this from the consumer perspective, but what about the small businesses and local entities that also need to be very aware of the clean transportation and mobility programs that exist. So, I think that's really critical for this process.

And just to highlight, we've already been doing a lot of thinking in this area. So, this is an area where we really think we can have or at least show some success in the short term.

Next and I think this is a fairly obvious one, but one of the main themes in our draft guidance document was really the need to identify sustainable long-term funding because we know that that's going to be needed to support this effort.

It's critical that the funding be directed to the specific needs of the communities, which we would identify through that expanded community needs assessment.

And also, I just want to mention, too, that when you talk about expanding funding, let me just give you some examples of what we're actually talking about. So, things like car sharing, and bike sharing programs, vanpooling, especially when we look at the San Joaquin Valley, those types of projects.

In addition to clean public transportation, where we're looking at school buses, public transit. And active transportation and clean transportation infrastructure would be included within this category in addition to the financing mechanisms which Michael mentioned earlier.

So, the need to design carefully crafted, clean transportation solicitations for grant and incentive programs, really to be more inclusive of those communities that I mentioned to you earlier, was mentioned through the 350 process. And we really think that's a key mechanism to increase access over time.

We see a vital need to connect the communities to resources that are available, including expertise. I think that's vital. That will allow for better access to funding opportunities, as well as building capacity over time.

So, some of the efforts on this have already been underway. I can give you an example. So, when it comes to the clean transportation projects that the Air

Resources Board oversees, we've been really trying to look at our grant and incentive applications now, and make adjustments based on the lessons that we've learned over time to be more inclusive, and maximize participation in our programs.

And I think that that's something that we want to look at more comprehensively, as well.

And real quickly, on this slide, too, I think it's important to make connections between the other efforts that are ongoing that are related to SB 350.

One great example is the Transportation Commission's development of funding guidelines as part of the SB 1 process. That's something that we're tracking very closely as they work on those guidelines, but also we're trying to share our experiences through the SB 350 process, and through this example priority recommendation on how we can potentially streamline the grant and inventive application processes.

But also, transformative climated communities is another great example of an area where we think there should be a lot of collaboration with our partners at the Strategic Growth Council. And also, part of that would be technical assistance, which relates to this recommendation.

So, quickly, I'll go through the next steps. I think that first, as we continue our public process, I just want to highlight to you that we're actually still getting feedback on our draft guidance document. We've received feedback from a lot of different groups. Our board members have been very vocal, as well, about how they want to see changes in the final document. So, I think the final product will be a lot better than what was published. It will be a lot more comprehensive and make ties to things like health impacts, and reduced VMT, and also our work with sustainable community strategies as part of SB 375.

We anticipate further meetings with our stakeholders on these priority recommendations that I mentioned to you. But also, we just want to talk more generally about implementation and how we move ahead with making sure that we're increasing access across the State.

So, as we work to finalize the guidance document, we'll continue to be actively involved within the task force. So, we think this is a great opportunity to really bring together all the State agencies that have common goals across energy and clean transportation. We really want to show that meaningful progress, as I mentioned to you earlier.

So, this slide is just in case you guys have questions or comments at all on anything I went through. I just wanted to make sure that we're giving you a very comprehensive update of where we are currently with this project.

Our collaboration with the Energy Commission, the Public Utilities Commission, and other State agencies is really vital as we move forward with this effort.

So, if you have any questions, my contact info is here. Also, just to highlight that we do have a project website, as well, that's available. If you have any questions, I look forward to hearing them as well from the Commissioners. Thank you, guys, very much.

MS. RAITT: Okay, hearing no comments, we'll move on to the first panel of the day, which is on Utility Efforts to Improve Clean Energy Access for Low-Income Customers.

So, if the panelists could go ahead and come to the tables, we'll have nameplates waiting for you.

And the Moderator for this panel is Melicia Charles, from the CPUC.

MS. CHARLES: Just making sure everybody's settled in. I'm going to move this back. Can you guys hear me okay? Great.

Good morning, everyone. I am Melicia Charles.

I'm from the Public Utilities Commission. I work in Energy Division. I work on a number of different issues. One of them being disadvantaged communities' issues.

And so, before we start the panel, I'm just going to give a high level overview of some of the activities that are happening at the CPUC with regards to utility efforts.

And I do want to preface this presentation by saying that we mainly regulate the Investor-Owned Utilities. As you know, we don't regulate the POUs.

And we have a lighter regulatory hand with the CCAs, even though they're here on the panel. And so, this short presentation is focused on IOU efforts. But I am looking forward to the larger conversation with the larger group of stakeholders.

The next slide. Okay, so just in terms of our programs, the CPUC has been doing a number of programs that have targeted low-income communities for years. And so, here's a list of some of the programs. It includes the CARE Program, and other rate discount programs. We also have the Energy Savings Assistance Program, which provides no-cost weatherization services to low-income households.

We also have several solar programs. The Single

Family Affordable Solar Homes Program and the Multi-Family Affordable Solar Housing Program, which provide incentives for PV on affordable housing.

And then, we also have a program that provides incentives for solar thermal technologies.

The next slide. As I mentioned, we've been doing these programs for years. But when SB 350 was codified into law, it really did create a shift in terms of how we looked at low-income and disadvantaged communities.

For example, the focus tended to be on low-income and income-eligible households. SB 350 definitely helped shift our thinking in terms of broadening that to disadvantaged communities and communities that are dealing with pollution burdens.

And at a high level, SB 350, I know it's been discussed before, but I'll talk about it in terms of the CPUC, has a 2030 greenhouse gas reduction goal of 1990 levels -- 40 percent below 1990 levels.

For the CPUC, it means encouraging resource optimization by developing an integrated resource planning process. It increase, as you know, renewables from 33 percent to 50 percent by 2030. And has a target of doubling energy efficiency.

And it also encourages transportation

electrification to reduce economy-wide greenhouse gases. And it also places and early priority on disadvantaged communities, as Michael mentioned earlier.

We are working in all of these areas. The slides that I have, which are publicly available, do have some tables towards the end, which I'm not going to go into, that gives an update on what we're doing in each of these areas, and it goes into more detail. It's something I ran through at the Disadvantaged Communities en banc, which was discussed earlier.

But instead, because are sort of time limited, I wanted to focus on a couple of programs that are happening and then broaden the discussion to the wider panel.

So, the next slide. So, in terms of consideration of disadvantaged communities, it does require the CPUC to consider disadvantaged communities in our decision making processes, prioritize air quality improvements, target economic benefits, and include the voices in disadvantaged community decision making.

And this was mentioned earlier and I'm going to plug it again, because we like pushed to get this out. But one of the ways that we're doing this is that we are jointly developing an advisory group with the CEC.

There's a staff proposal that should be released imminently, like literally momentarily, and we do encourage stakeholders, I'm going to look out to the audience to provide comments to us by August 15th.

The next slide. So, as I mentioned, I wanted to target a couple of activities that we're doing and one of them is on transportation electrification.

The CPUC has had EV programs for years. But what SB 350 did was broaden the definition of transportation electrification and our focus from just vehicles, but to transportation electrification more broadly.

And as a result -- actually, before I talk about what we're doing with TE, I would like to talk a little bit about infrastructure pilots.

Prior to SB 350 being codified, we did work on adopting three infrastructure pilots that have a collective budget of just under $200 million. And the purpose is to install a cumulative 12,500 chargers in PG&E, Edison, and SDG&E territories.

Within each of those programs, and each of the programs are different, and because they're pilot projects we are doing a little bit of experimentation in terms of how these programs look. But each of the programs do allocate 10 to 15 percent of their funding to disadvantaged communities. And they're in various phases of implementation, but it’s something that we’re doing right now in terms of looking at disadvantaged communities, looking at how we can target these communities, and how we define them. And so, we’re hoping those early learnings will inform our efforts with regards to transportation electrification.

On to the applications. Pursuant to SB 350, we did, at the CPUC, require the IOUs to submit applications to encourage transportation electrification. So, in January, the large IOUs, PG&E, Southern California Edison, and SDG&E submitted applications with a collective budget of over $1 billion, with a number of different projects supporting transportation electrification. I’ll talk a little bit about the different projects targeting disadvantaged communities and impacting them.

And then in June, the small Investor-Owned Utilities also submitted projects.

And so I think, collectively, when you look at the projects between the six utilities, large and small, we have over 30 plus projects that we’re looking at and considering at the CPUC. And we’re hoping to have a decision on some of the priority projects later this year, in a couple of months, in the fall.

And projects that impact disadvantaged

communities include projects in the Port of Long Beach. Those were promoted by Southern California Edison. And then, there are also projects for medium and heavy duty vehicle sectors for transit corridors, which again, would have an impact on disadvantaged communities. And there are projects for bus fleets.

So, as I mentioned, we are reviewing all of those. We are considering the impacts broadly on disadvantaged communities. And look for us to start making decisions and adopting some of these programs very soon.

The next slide. So, this is an area, this is the San Joaquin Valley proceeding. And it is separate from, but related to the SB 350 activity. I just wanted to mention it, briefly.

The CPUC did open a proceeding to increase access to affordable energy in San Joaquin Valley. It provides guidance, with flexibility to analyze and array of options to achieve the statutory purpose, which is basically this is pursuant to AB 2672.

And it includes extending natural gas lines, increasing electric subsidies, and exploring other alternatives.

And where we are right now, there's been a lot of work that has happened in the past year or so. And right now stakeholder meetings have been held over the summer, and the CPUC is commencing data collection and analysis within this proceeding.

Okay, moving to the next slide. So, those are just a couple of programs. As I mentioned, there's a lot of activity happening. For us, disadvantaged communities' spans across a number of different proceedings. The whole point of this graphic is to show how wide-ranging and cross-cutting these issues are. And it's something that I've mentioned before, and I will mention again, I do believe -- we've had, as I said, we've had a number of programs. We continue to have programs for low-income and disadvantaged communities. I do think SB 350 and a lot of the momentum in the other recent statutory mandates are challenging us and giving us the opportunity to think through, more comprehensively, how we address disadvantaged communities.

And so, moving to the next slide. I am basically done. But as we move into the panel, I think some of the questions to consider as we begin the discussion with the larger group is how has SB 350 and other recent legislation related to disadvantaged communities changed activities for both IOUs, POUs, CCAs in terms of disadvantaged communities?

I know it has changed and shifted our activities at the CPUC and I look forward to hearing how it has for you guys, too.

And how do you target low-income customers within these specific communities?

And I'm really curious because we have these large IOUs represented here, with millions of customers, and the new have municipal utilities and CCAs who have smaller targeted groups. And it would be interesting to hear sort of the different ways you guys target.

And then, how do you build trust within these communities? This is something that we are also struggling with at the CPUC in terms of thinking through how do we build trust? How do we build a truly collaborative relationship within these communities?

And then, how are community advisor groups leveraged? I know that Edison has an advisory group. I know that there are advisory groups that are being formed. And I would be curious about hearing that, especially as we begin to develop our own advisory group.

And with that, I'm going to stop and I will either -- if you guys have questions, I'm happy to take them, or else we can move on to the other panelists.

CHAIR WEISENMILLER: Let me raise at least a topic, which as we get through the panel can come up again. Obviously, the PUC's been a real leader with the IOUs on diversity in the area of contracting.

Do you have a sense of how much the diversity contracting is in DACs? And then, also, how much that applies not just to the IOUs, but sort of progress in that area among the other load-serving entities?

MS. CHARLES: I don't have a sense. It's very interesting that you asked that question because it came up yesterday. I forgot what conversation. But I don't have a sense of how much diversity contracting is in DACs, but that's something we can definitely follow up and check into.

MR. CAMACHO: Thanks for the presentation. That was great. How did you arrive to the 10, 15 percent allocation? I'm just curious and I'd like clarification.

MS. CHARLES: That's a good question. And you know what, it's been a while. I have a former employee in the audience who I could -- who works at the CCA, who I could look at.

You know what, I cannot remember how we can to the 10, 15 percent with regards to it. I think it seemed like an appropriate amount in making sure that some was allocated for disadvantaged communities. But making sure that, because we were trying to bolster the market that we did allow for other market segments at this point. But I'm happy to follow up in terms of a more specific answer, yeah.

Okay. So, I guess to begin, I'm not sure where to start so I'm just going to kind of go down the line.

MR. FERNANDEZ SMITH: So, at this point would you just like name and roll, and go around that way, or would you like us to give some opening comments?

MS. CHARLES: I think, if you guys don't have a preference, maybe name, roll, opening comments, and then go down the line, and then I'll open it up to you guys for questions. Does that work?

MR. FERNANDEZ SMITH: yeah, that sounds good.

MS. CHARLES: Okay.

MR. FERNANDEZ SMITH: Good morning, everyone. My name is Allen Fernandez Smith and I'm with PG&E. I lead many of our low-income programs' strategies and our community engagement outreach.

I also want to say thank you for the presentation. I think it was a wonderful overview. And we also applaud the Commission and its leadership, along with the stakeholders, to start to really lift up the plight of disadvantaged communities and focusing on that.

From the presentation, you'll see that disadvantaged communities is coming up in a lot of places. And because of that one of the questions was how is PG&E reacting to that? What are we doing to really align ourselves so we can focus on it?

We've worked to make sure that we are more intentional about that alignment and coordination. That it's about bringing forward a comprehensive strategy and making sure that it's not just these disparate opportunities that are happening in different places.

And so through that, we're making sure that internally we're forming workgroups and opportunities for the different programs to be working together and moving forward. So, that is starting with the same levels of information, looking at some joint outcomes, even using data to figure out what are these communities that we're really talking about.

And that's helping us think through some of the outcomes for our programs. But with that, it's fully undergirded by that community outreach and engagement. We need to make sure that we're fostering those authentic partnerships.

And so, we have a number of different ways that we are using advisory groups, and I can talk about this later on as we get more into it, and that we're building out our community engagement partnerships. Whether it be with our schools, or our after-school programs, or our community health outreach workers, multilingual opportunities and organizations. Really looking at how do we really build a robust, comprehensive look at those relationships.

So, I'll leave it there and I'll let us keep going, but I'm happy to talk a little more in-depth about those things.

MR. RENFRO: Aaron Renfro, from Southern California Edison. I'm the Regulatory Program Manager for the EPIC Program. And I was the author and the project manager of the EPIC 1, 2 and 3 applications for Edison.

So, just let me say a few things. DAC's a very important issue for Southern California Edison. And being that, of the DAC population here in California 47 percent live in Edison's service territory, so very important.

And wanted to also note that our efforts in this space preceded any formal orders from the Commission.

Also wanted to quickly note our support of AB 523 that Reyes is sponsoring for the DACs.

So, just wanted to quickly mention a couple of different items that we can talk more in-depth as we go through. But wanted to highlight our working group that we just put together, in collaboration with the Greenlining Institute. Stephanie Chen's been instrumental in that process.

And that's basically taking these community-based groups, and environmental justice groups, and getting a better sense of their needs within our service territory.

We also have some current efforts underway. And those include things like our enhanced gas turbine. We also have our Net Energy Metering 2.0 proposal. And we also have our transportation activities that Mel had just mentioned, both in the clean fuels space, that's like our reward program, as well as our recently-filed transportation electrification proposals that she also had just talked about.

And then, of course, we have our EPIC applications, both from our past portfolios and the portfolio that we have in front of the Commission, currently.

So, I'll stop there and let San Diego talk.

MS. PALERMO: Thank you. Hi, I'm Erin Palermo from SoCal Gas. I am the Energy Efficiency and Low-Income Policy Manager. And I wanted to talk today about our efforts that we have serving our low-income customers.

Similar to Edison, we have over a third of our customers who are income qualified, and we know that energy affordability is really important to all of our customer base. And natural gas really plays a key role in those communities as a low cost and relatively low emissions fuel.

So, we know there’s significant opportunity in disadvantaged communities to really reduce emissions and benefit these communities through heavy duty natural gas vehicles, through developing renewable gas for pipeline injection for core residential and commercial end uses, and through serving our customers in our low-income and energy-efficiency programs.

We’re also actively exploring extending natural gas service to the San Joaquin Valley, as was mentioned earlier, to reduce particulate emissions and also benefit those customers and reduce their energy burden.

So, a couple of the programs I wanted to highlight. So as Melicia mentioned, we have our Energy Savings Assistance Program. In 2016, we served over 60,000 households with that program.

And we’re looking now; we have efforts in place in 2017 to really expand the presence of that program.

One of those efforts is partnering with LADWP to offer a really comprehensive gas, water, and electric measure offering to multi-family customers to address some of the barriers we heard in the Barrier Report.

We also have a program with South Coast AQMD, Air Quality Management District, to partner to reduce emissions in Boyle Heights and San Bernardino.

So, the ESA Program provides attic insulation and other measures that improve air quality, while South Coast AQMD at the same time does air sealing efforts in the home.

So, through these partnerships we can really expand our program offerings and reach more customers, and produce more benefit for the low-income community.

We also have noticed, in delivering our programs, that there are some barriers that prevent the households from participating. So, if we go to a household and we find they have asbestos or, let’s see, or electrical or drainage problems, things like that that would prevent them from receiving the energy savings assistance weatherization treatment, we are finding ways to try to address those barriers to allow those customers to be served by the program.

So, right now we have a pilot program with the City of Southgate, where we’re testing 100 households to remove those barriers and provide them with this service. And as we move forward with that pilot program, as the results come to be successful, we'll look to expand that to our entire service territory.

And lastly, with regard to the San Joaquin Valley pilots, we just proposed five cities that we would like to explore extending natural gas service to. Those are Allensworth, California City, Ducor, Seville, and West Goshen.

We know that extending natural gas service will really help improve the safety, health and the environment in those communities, and it will reduce greenhouse gas and particulate emissions, especially for customers who currently use propane and wood for their space and water heating.

So, those are just a few of the offerings we have and we look forward to any more questions, or in speaking more in-depth on these things. Thank you.

MR. TUTT: Good morning, Commissioners. This is Tim Tutt from the Sacramento Municipal Utility District. I'm the Program Manager for State Regulatory Affairs there.

And I was going to go through a variety of high level information about SMUD's programs for disadvantaged communities in solar, and energy efficiency, and on transportation, et cetera. As the panel goes on, I can cover some of those.

But let me just start by responding a little bit to Ms. Charles' comments. I mean, this is clearly a lot of change at SMUD, based on what's been going on at the State level and our concerns with disadvantaged communities.

We had an environmental justice panel come out and give a presentation to our board a few months ago, and that set off an internal effort to really reexamine everything that we're doing to help low-income communities and environmental justice in our service territory.

We have about 100,000 customers on what we call our Energy Assistance Program Rate. It's very similar to, I believe, the Investor-Owned Utilities' Care Program. And based on census data, another 80,000 customers are eligible, but just they don't sign up.

Currently, that program provides a discount on the infrastructure charge to our customers. That's the fixed charge that most customers can't avoid, no matter what their electricity is. And also, a discount on their electricity rate, up to 48 percent. It's capped at $42 per month, per customer. That's our current program.

We just adopted a reevaluation or refocus of that program that is going to go into effect in 2019 and be phased in.

And in that, we're going to be focusing those discounts much more significantly on the customers that really need it, the lowest income customers, and the customers where if we look at their energy bill, we see that they have a high energy bill burden in comparison to their income.

So, we'll be focusing energy efficiency programs on those customers and focusing the energy bill assistance on the lowest income and most neediest customers.

I wanted to speak a little bit about how we coordinate that program with our local entities. I mean, SMUD is, as you know, not associated officially with any local government. We're a separate local entity. But we do coordinate with the City of Sacramento, and other local governments.

As an example, with the City of Sacramento we have an MOU, so that they use our Energy Assistance Program rate database, those customers. And the City of Sacramento automatically gives those customers discounts on City utilities. You know, sewer, water, trash, et cetera.

And in addition, those customers are

automatically exempted from the City's utilities tax, that part that we collect and send to the City for utility service.

We have similar, but less formal processes in place with the County, and Elk Grove, et cetera. And we fund what's called the Network Connection's Monthly Meet Up, where a bunch of local organizations that serve Sacramento's low-income community share information and foster coordination.

So, we do believe in local coordination of these efforts in our service territory.

I'll leave the rest for later in the panel and pass it on.

MS. ASBURY: Good morning. I'm Jamie Asbury from the Imperial Irrigation District. And my focus this morning is going to be on IID's new eGreen program.

We looked at our public programs and we recognized that half of what we were collecting in terms of public benefits charges were going for rate subsidies and rate assistance to our low-income customers. And because of the way that IID's load is, it's 1,000 megawatts in the summer and 300 in the winter, even providing that rate assistance was really not helpful.

You have a low-income customer segment that is not able to afford efficient housing. We were looking at what we were doing and we were not doing enough.

So, we took a look at the District's needs as a whole. What was the customer need? What tools did we have? What resources were available to us? And where we deficient?

We took a hard look at what we needed to do and where we needed to go with the program. And so, we've developed eGreen. It is a utility-scale solar program. It's 60 megawatts. We signed a power purchase agreement that was approved by the IID Board two weeks ago. We're going to provide a financial settlement on billing for our low-income customers, with regard to that PPA, and utilizing the generation from that resource.

And at a point, and I can explain further how it will work, the transaction will work. Our service territory is 6,500 square miles, so community solar really wasn't going to work in any meaningful way for us. And the more we looked into it, the more costly it seemed to be. It wasn't going to benefit our customers. It was going to be a detriment to them.

So, we'll explain how we think eGreen is going to allow us to invest more in efficiency measures for these customers to benefit them even further.

We also have a segment of that power purchase agreement that's allocated to economic development rate subsidies for new business creation in the valleys that we serve, and we'll discuss that further.

That's a very interesting question about how you get the word out. We have 157,000 meters that we serve, but only 1,500 customers, approximately, quality for the Residential Energy Assistance Program. Clearly, we're not getting all the way into where we need to infiltrate so that people are benefitting from what we have to offer.

We have an Energy Consumer Advisory Committee that's mandated by the IID Board. And they're customer advocates, almost like ombudsmen for their particular areas. They've made a number of suggestions that probably never would have occurred to staff. And one of them was have you considered getting the message out through faith-based organizations?

Because many of your consumers, that's where they're going to get the vast majority of their information. So, we've started to do a much better job in outreach through the schools, through the colleges, through the tools that we have available to help get the message out. And billboards and advertising are wonderful, but they're not if they're not getting to the people who really need.

So, we'd be pleased to discuss the eGreen

Program much more as we move along and be happy to answer any questions that you have, and thank you.

MS. MENTEN: Good morning, Commissioners. My name is Beckie Menten. I'm the Director of Customer Programs at MCE. MCE is the newest kid in the sandbox. Please allow me a little bit of time for introduction.

We are a community choice aggregator. That means we're a joint powers authority. Our board is made up of the 33 local governments that we serve. There are nine new jurisdictions that we just opted into our community in this July, over the summer, and that's a handful of the jurisdictions in Contra Costa County. So, now, we collectively serve Marin County, Napa County, and about half of the jurisdictions in Contra Costa County, as well. Currently serving 250,000 customer accounts.

MCE's mission is climate change mitigation. This is something that we've worked very hard to do both through the procurement of renewable energy, as well as through energy efficiency and other distributed energy resources programs.

Briefly, I want to mention some of the features of our current portfolio, which is equitably accessible to all of the customers in our service area. We've achieved 75 percent carbon-free energy mix this year, more than 56 percent renewable portfolio compliant. And we are contracted for those contracts through 2026, ensuring some long-term reliability of renewable energy in California.

We also have a target of 25 megawatts of local production. Local production is particularly important because it also means local jobs. This is something that's very important to the members of our communities, as well.

As a CCA, we have access to statutory authority administer energy-efficiency programs by accessing the ratepayer funds that are collected on all customer accounts.

We have been serving hard-to-reach customers with those accounts or with those funds for four years, now. Those focus on multi-family and small commercial programs. We also recently, this year, launched a single-family pilot, which is a no-cost programmable thermostat program, which has really promising cost-effective savings, something we're really interested to talk about more, as well.

In addition to what we've been able to achieve through those programs, we have some new pilots. I really want to commend the work of the Joint Agency in noticing some of the barriers that exist to serving low-income, because we've seen many of the similar barriers and, actually, many of the similar solutions.

So, for example, the idea of focusing on local partnerships is something that is core to our business plan proposal and to several pilots that we have currently launched in our service area.

We have the Green and Healthy Homes Initiative, which is an initiative that first started in the East Coast and we're on bringing it to the West Coast. That really blends a variety of program funds that come, for example for the Weatherization Assistance Program, Low-Income Housing Programs, as well as Health and Safety Program funds to make sure that one touch point at a property can really deliver as much of those blended resources as possible.

Another example is our proposal for the Energy Savings Assistance Program. We have a pilot that we'll be launching very soon, focused on blending Energy Savings Assistance Program funds, as well as Core Energy-Efficiency Program funds at a single touch point to see if we can overcome some of those split incentive barriers in the multi-family property and really deepen the impact you can get at one building.

A feature of that pilot is also exploring the affordability of heat pump installations as a means of both providing greater access to renewable energy integration for some of these facilities and, also, potentially resolving health and savings concerns from combustion safety appliances, as well.

So, we’re really interested in exploring how the impacts of those actual on-the-ground installations do, how those heat pumps perform, and if this can be a really viable solution in the long-term for renewable energy integration, demand response activities, and affordability, and health and safety concerns.

We also have a few other pilots which we’re pretty excited about. One of those is funded by the California Energy Commission through the American Recovery and Reinvestment Act. This is termed the Building Energy Optimization Project. It’s really exploring how we can use data-driven solutions for targeted and deploying distributed energy resources on a community scale.

A part of that is also investigating the business models for deploying those. So, as a CCA, how can we can take advantage of our unique access to data, our unique connections to our local governments and our ability to rate base, for example, to see if we can unlock some interesting new business models for deploying DERs on a scaled level.

I just want to mention one other thing before I relinquish the mic, which is that I think it’s important as we talk about these great opportunities with partnerships with local jurisdictions, and this increased emphasis on disadvantaged communities to make sure that the polices that we have in place as agencies align with our desired program outcomes.

I think that currently there are some existing cost-effectiveness policies, for example, that really constrain the ability of both utilities and CCA implementers of ratepayer funds to effectively serve those communities.

We find that they are much more expensive to serve, for a variety of reasons which we can get into, and the current cost-effectiveness policies really don’t allow us to do that.

I think data access is something that we all know can be a big barrier to some of those local partnerships. And it’s interesting to explore ways in which partnerships can come together to increase data access, for example for community-based organizations and local governments who are well-poised to serve some of these communities.

Finally, I know this is not something that this Joint Agency has power over, but differing program policy requirements, for example the income requirements in the LIWP and Care programs, related to the ones at the Federal level, make it very difficult to blend resources across those funds and really limit our ability to expand our reach in these communities.

So, I just wanted to point out that those are some of the additional barriers we see and I’m happy to answer any questions on our programs.

MS. CHARLES: Okay, thank you all. I have some questions, but I would like to cede the floor to the Commissioners to see if you had any questions.

CHAIR WEISENMILLER: Well, again, just for context, I liked -- you know, Ron Nichols is always really good at saying we have 47 percent of the DACs. And so, really focusing on issues. I’m trying to get a sense from PG&E, you know, basically, where are the rest of the DACs. Who has the split? Do you know the DAC percentage for PG&E or for San Diego?

MR. FERNANDEZ SMITH: For PG&E, I don’t know the DAC percentage, specifically. But the way that we think about it on our low-income side is that, similar to the other utilities, a third of our residential customers do qualify for our low-income programs. So, that’s about 1.4 million.

Within the population of the San Joaquin Valley, that’s where we focused a lot of our disadvantaged communities’ efforts right now.

CHAIR WEISENMILLER: How about San Diego?

MS. PALERMO: So, this is SoCal Gas. But I do know -- so, the way the disadvantaged communities are defined is typically by county. So, in San Diego, they do it by different cities because it’s a much smaller area?

Anything else? Yeah, do you know what percentage of your service territory is DAC?

CHAIR WEISENMILLER: Speak into the mic.

MS. PALERMO: Sorry, this is -- yeah, come up. This is Mayda Bandy from SDG&E.

MS. BANDY: This is Mayda Bandy with SDG&E. Our DACs are pretty small in comparison to how many customers actually qualify for our low-income programs in San Diego, due to how they’re characterized.

So, I would say for us, when we look at our low-income population in our area we base it more off of, at least for our purpose of low-income programs, off of the 200 percent poverty line. And for that we have about a third of our customers on low-income programs.

CHAIR WEISENMILLER: Thanks.

Tim, do you know?

MR. TUTT: Chair Weisenmiller, I don’t have those statistics on the percentage of our service territory that's in DAC at this point in time. But we have seen the map, we're aware of CalEnviroScreen. Our low-income and, you know, other people are working with that information.

I could get that to you. We do target some of our programs to those specific DAC areas identified in the CalEnviroScreen maps.

CHAIR WEISENMILLER: You know, that would be good. Actually, if everyone just wants to submit for the record later, the numbers that would be good.

MS. MENTEN: I do have statistics, if that would be useful.

CHAIR WEISENMILLER: That's good, yeah.

MS. MENTEN: We have about 16 percent. This is not a direct numbers-to-numbers comparison because DACs we counted by parcels within those Census Tract areas. But about 16 percent of the parcels in our service area are within a disadvantaged community.

Additionally, about 15 to 20 percent, depending on the region, will qualify for LIWP for that 200 percent of federal poverty.

And then we count an additional 38 to 40 percent, on top of those that qualify, as the middle income within our service area. So, that's 60 to 120 percent AMI depending on household size.

COMMISSIONER SCOTT: I had a question, which is for Tim and also for Jamie. You both mentioned, Tim that you had heard from your Environmental Justice Panel, and Jamie that you had heard from, I think it was the Energy Consumer Advisory Committee. And after hearing from them, the boards went and kind of took back some of that information and are strategically thinking about how to more effectively address those communities.

Can you give us some examples of things that you heard or actions that you're taking to more effectively address the communities?

MR. TUTT: Yeah. So, an example of one of the recommendations that we heard was maybe form an advisory committee. And as a result of that Board meeting and that panel, the Board directed our executive director to come back to them, at some point in time, with information as how we can change our efforts and programs to consider more environmental justice.

One example might be -- I mean, we do have a strong directive to be cognizant of the local environment, but it doesn't include the words "environmental justice" in it. So, we can focus more on that as we move forward.

But I think more importantly the staff that are looking at what everybody else are doing. There's staff that are looking at what our programs are and seeing how we can take ideas from other places and revamp our own ideas to come up with a more comprehensive proposal to get back to the Board with.

MS. ASBURY: IID's Energy Consumer Advisory Committee actually has a public program subcommittee that's made of the smaller group, two members from Imperial County and two members from Riverside County.

In many situations where we've reviewed our programs with them, our proposed programs, they've offered tweaks to them and made it better, more efficient. They've offered suggestions for things that staff hadn't considered. For example, where we invest our dollars for advertising, or where we get the word out, or where we show up with whatever materials that we have to more further get the information out to the customer base that actually needs it.

So, they've been very, very helpful and they are essentially staff's and the board's ears, you know, in the local community, and they do come back with very helpful information.

COMMISSIONER MCALLISTER: So, thanks everybody for being here. Mel, for your presentation. That really was great context to set it up. And, you know, just the diversity is, you know, I think self-evident here across all the presentations.

So, I have a few questions. I don't want to sort of get them all out right at once. But I guess just an underlying kind of theme that maybe hasn't been stated exactly is really often our energy services, and particularly electricity, natural gas, tend to be kind of Balkanized from the rest of the economy in a given area. And so, you know, partly that's because of the regulatory environment and they sort of have to be.

You know, on the hand, often at the Commission we sort of desire, you know, control like the PUC has over their regulated entities.

But on the other hand, you know, I think the advantage of having a lighter touch is that the local entities, like IID, like SMUD can do what they need to do within their own worlds, which is a local thing. So, I think there are sort of pluses and minus of both approaches.

But I wanted to ask Jamie -- also, congratulate you. Really, even just saying the fact that, wow, we got from our communities things that staff might not have thought of. I mean that, in and of itself, is just a beautiful statement and I'm really glad that you made that. And that shows that you're listening. And I think that's what we need more of in these low-income populations where people maybe aren't used to being listened to. You know, we need to really figure out how to hear them. So, I think that's just a big step in the right direction and kind of an organizing principle that we ought to keep in mind.

So with that, I wanted to ask you more about the eGreen Program and how those benefits from a solar PPA are sort of accrued, and then allocated, and sort of what that looks like in real life in terms of what you're thinking of doing?

MS. ASBURY: Certainly. So, we did hear from our low-income customers. Over half of our PBC funds goes for rate assistance on bill subsidy. And we're fine with that.

But what we were noticing is that we also allocated a portion of those dollars for emergency assistance, for when a customer was at risk of being disconnected.

Because in the Imperial Valley, in Riverside County, in our service territory in the summertime that is a life-threatening situation.

And we started to see, annually, that that emergency fund was being used more and more. So, clearly, what we were doing wasn't enough.

So, we looked at, again, all of the tools we had and the resources available to us, and what the need was. But we didn't just look at what the customer need was. We took a look at what the system need was. We took a look at the financials we had, the technical needs we had, and the customer need that we had.

So, we want to attract jobs to Imperial and Riverside County. We want to better serve our under-served customer segment.

We're also a balancing authority and a transmission provider. We have a significant number of projects seeking interconnection to the system. Some of them were late stage. They were permitted, they were shovel-ready, and we thought this is a perfect storm of opportunity for us. We have these projects ready to go, but they don't have an off-taker. So, we issued a solicitation and our goal was the faster we can get you online and the least cost you can charge us for a power purchase agreement, with an option for IID to own the facility at the end of year seven, when you've received all the benefits you could have from it, would be good for us.

So, we're going to allocate a portion of those megawatts to our low-income customers. So, we looked at what the meter load was, approximately. How much we needed to serve those customers and we were looking to get low cost.

Our rates are not significant. You know, they're not significant, but they're still too much for some people at 11.69 cents per kilowatt hour.

So, we bid it and there was pretty significant competition. So, what we're looking at is we'll use 30 megawatts of the 60 for low-income subsidy. It's a financial settlement on your billing. We have the billing engine, already. We're currently giving that credit.

So, now, we're going to invest those dollars into a tangible asset that at a point in time, at year six, you know, IID will pay $11.57 a megawatt hour for the generation. It's a relatively complicated PPA in terms of a pre-pay by the district, but the levelized cost is less than $30.00. We thought that was really good. We want to pass that benefit along to our low-income customers.

So, we also want to allocate a portion of that for economic development purposes. So, at a point the trajectory of what we're spending in public programs money for the generation is less than what we were giving as an on-bill subsidy. That frees up a whole lot of additional dollars to go into these same people's homes and do direct install of Energy Star appliances, weatherize the home, put radiant barrier in, do better insulation, you know, better windows, better everything that we can.

Because at the end of the day, if we're subsidizing, but we're not gaining any efficiencies, you're sort of cutting yourself short on both ends. And that was sort of the construct.

So, it's basically a financial settlement on-bill, but it provides us a lot of flexibility.

COMMISSIONER MCALLISTER: So, that's a really interesting business model. So, maybe others have questions, you know, deeper questions about that.

I wanted to broaden a little bit the question about integration. You know, Beckie, you mentioned integration with health and safety programs and, you know, sort of how -- there are, I know, many local jurisdictions with an older housing stock have funds that they pay into fixing up, just window replacement, and just basic maintenance of homes and stuff in low-income communities.

And maybe talk about some of the barriers and opportunities you see there to try to pool resources and really do that kind of one-stop shop approach.

And then I'm interested in anybody's comments about what they’re doing in their worlds on this.

MS. MENTEN: Yeah, I think the one-stop shop approach that we really rely on these days came from our experiences serving some of these disadvantaged and hard-to-reach communities. It really can make a difference when you leverage a bunch of different streams of funding and resource conservation opportunities to bring someone into the payback period that makes sense for them, or bring it over the line.

For our small commercial program, for example we recently partnered with the City of Richmond who had some funds available to help close the gap between what we could pay for with rebates, the ratepayer funds, and what the City was willing to pay for to actually help some of these small business get over the line.

And we’re talking businesses, of the businesses we touched, 58 percent of them spoke English as a second language. We were able to go in with Spanish-speaking materials. We have staff members on our team who speak Spanish, who were able to go in and help make the pitch, and present the availability of funds from the government which provides some credibility, as well. It’s an important part for getting the communities to trust you.

And through that, within a matter of a few weeks, we were able to enroll over 73 businesses. And we're talking mom and pop convenience stores across the commercial corridors in the City of Richmond.

So, I really think it's a proven model that partnering with those local jurisdictions helps provide a sense of credibility, trust, and can provide resources necessary to close the gap.

Again, I want to reiterate that there are some policy barriers that make it challenging to move forward with this kind of thing on a regular basis. Hard-to-reach are harder to serve. They don't have as much cash flow available. They aren't as willing to take on debt, perhaps, as some of the larger commercial businesses that you may see. And as a result, it just takes higher incentive dollars to serve them.

There are a couple quick fixes. For example, switching from the TRC to the PAC in ratepayer programs might be one way, at least in the context of low-income to help align some of those policies with program outcomes, as I was saying.

Another, for example, would be the net-to-gross associated with hard to reach. Allowing for a higher net-to-gross ratio removes the disincentive for utilities to spend more dollars that it takes to translate materials, to get Spanish-speaking folks out on the streets to really just help make sure that there's alignment and that disincentives are out of the way.

One last thing I'll mention on the residential side is that when you're dealing with single-family and multi-family homes, there are a ton of resources available and a ton of different pockets, and it takes a lot of administrative burden to bundle those programs and to get them to work together. And that's even where the policy barriers allow them to be bundled. When you're dealing with 200 percent federal poverty as an income requirement in one versus 60 to 80 percent AMI in another that can be drastically different. And 200 percent federal poverty is very low, for many of California communities, as well, so many homes don't even qualify.

So, access to GAP funding, aligning between policy barriers really help to make it more possible to align those funding streams. And understanding that when you do that there will be a slightly higher administrative burden which is, hopefully, offset by less touch points to achieve the same resource conservation.

COMMISSIONER MCALLISTER: Thanks.

Tim, do you have any comments on that? Yeah, I noticed you talked about, really, some serious targeting and overlapping programs that you were trying to coordinate, and I'm interested in knowing more about that.

MR. TUTT: Sure. I'll provide more information and some additional targeting and coordination efforts. I mean, we're partnering with a variety of organizations that help our local customers that are disadvantaged in ways that are not energy related, as well.

We're partnering with Rebuilding Together. They help fix up older homes. We have a new partnership with Habitat for Humanity to help fix up the roofs of homes, so that they're eligible, then, for solar.

And then, in terms of partnering with the State, and we partner with the Community Services and Development, in their Low-Income Weatherization Program, and with Grid Alternatives.

And that program, we send out direct mailings to eligible customers and they sign up. And we will do a deep energy-efficiency retrofit for those customers. And then, the solar is funded by the Low-Income Weatherization Program at the State.

And those customers, the roofs have to be adequate, so it helps to bring the roofs up to snuff with our other partnership. And the customers have to be located in a DAC and be on the EAPR rate. So, it's really focused on these low-income, DAC communities.

We're the first large utility, I think in the State, to move to opt-out time-of-day pricing. And that's going to start in 2019. I mean, it's a good move, I think, but it's of some concern what the impact will be on some of our lower-income customers that may have inefficient air conditioning and heaters. And this a hot area, like IID.

So, we have a focused pilot program, several of them, that are aimed at getting ready for that TOD rollout for these customers, and really looking at going out to these customers and doing an auditing, repairing and replacing their heating and cooling, and making it more efficient, weatherization, and replacing the refrigerator. So that that switch to time-of-day pricing will not be as significant for them.

And we've added $10 million to our low-income program as part of that effort for this year. So, we're really focusing on that.

I think the other things I'd mention is, you know, you may have heard of our pilot, the Natural Refrigerant Program, incentive program. That's where we're incentivizing refrigeration operations, or customers that have refrigerators to use natural refrigerants, rather than the problematic climate refrigerants.

And we provide an incentive bonus in that program for projects located in DACs. And the intent there is to encourage the continued existence of smaller, independent grocery stores in areas that might otherwise be food deserts. So, we're going a variety of things on that front.

COMMISSIONER GUZMAN ACEVES: Thank you.

COMMISSIONER MCALLISTER: It looks like maybe somebody else has comments on this, but just quickly.

MS. PALERMO: Sure, this is Erin from SoCal Gas. I just wanted to highlight a couple of things about our partnerships and the way we've also been leveraging different sources of funding to support our low-income customers.

So, the program I mentioned, with our low-income ESA Program, partnering with LADWP, so the goal of that, and we also partner with other POUs in our territory, like City of Burbank and Glendale Water and Power.

And the goal is to offer a very simplified, one-stop approach for our customers so that they can get the suite of gas, water, and electricity measures without having to get multiple touch points from all of the utilities.

And so, the LADWP partnership we're really expanding and it's been really successful so far, with just half of 2017. We have 1.2 million -- or, sorry, 1.2 megawatt hours of savings, 51,000 therms, and 26 million gallons of water saving. So, it's being very successful.

And then, with our City of Southgate project, for our barriers removal, that's when we find asbestos, or other problems in the home that prevent participation in the ESA. We're leveraging the Community Development Block Grant Funding through the City of Southgate. So, it's a little expensive to treat these homes, it's about a thousand dollars per home. But in leveraging that other source of funds, we're able to do this pilot and see how successful it can be. So, thank you.

COMMISSIONER SCOTT: All right, I have a quick follow up on that specific point about ESA. I'm not an ESA expert, but you mentioned things like asbestos, and I think you mentioned leaks, previously.

Do you have a sense of how many of the households that you would like to help through ESA are knocked out of the program because they have asbestos or some of these other issues that you raised?

MS. PALERMO: Yes. In our territory, we find about 40 percent of the households we try to treat have these barriers.

MR. FERNANDEZ SMITH: For ESA, that’s a number that we can find out easily. I don’t know exactly those specific households that have that barrier. But I do want to build on some of those partnerships that SoCal Gas was talking about.

We also are looking at where can we start to expand those partnerships, both to extend maybe our ESA or CARE signups, but also as we think about residential rate reform how are we working with these trusted organizations in those communities to be able to share more about rates are changing, here are some tools and tips that are coming forward. And so, there’s a number of community organizations that we work with.

We’ve also found that some of our work with embassies, when folks are coming in as newcomers, and are looking to set up their utility, or just get themselves situation, having that as a background playing as a, like, did you know about CARE, did you know about these opportunities from the utilities, we’ve found some signups there, as well.

MR. RENFRO: And just wanted to mention for Edison, in terms of one-stop shop approach, we’ve been working with the Valley Clean Air Now group for about a year. And we’ve found that at the Valley Clean Air Now events that a lot of our Edison customers qualify for an array of other programs, such as CARE. So, that is something that we are working on and we're just now building our approach on this concept.

COMMISSIONER GUZMAN ACEVES: So, I think going back to one of Mel's points on the interest in our alleviation of pollution, and I've heard some of you talk a little bit about different overlaps that you do use the DAC mapping tool for to focus that investment.

Certainly, I think in the transportation electrification efforts that we're a part of, and many of you are a part of, the alleviation of pollution is very direct.

And this kind of goes to something that Jamie, from IID, was kind of mentioning in terms of this -- on the generation side and on the procurement side of generation when you're going from a distributed generation option to maybe a wholesale option.

And I have a very specific question on, and we're obviously in the middle of certain proceedings on how to grow distribution generation options in disadvantaged communities, but the grid is getting cleaner.

And in terms of alleviating pollution, are any of you looking at the displacement -- one of the things we learned in the IRP efforts is the combined cycle gas turbines, and they're very particular contribution to pollution. Do any of you have strategies to directly replace those plants, particularly for RA purposes, as well?

MR. RENFRO: So, for Edison, we do have our hybrid enhanced gas turbine effort. This is a first-of-their-kind gas turbines that are for two of our peakers and it does supplement operational capabilities with energy storage systems.

We have two projects already in operation. One is Center Peakers, and that's in the City of Norwalk. We also have Grapeland's, and that's in the City of Rancho Cucamonga.

We are looking at expanding that to an additional three peakers and we're in the middle of defining the business case for that effort.

Just also will note that at least within the EPIC Program, the utilities are barred from generation, so we focus on other efforts, such as the enhanced gas turbine that I just mentioned. And it's a really neat project.

Edison Electric Institute did award the enhanced gas turbine for it, and it's an award for this. So, it's pretty neat.

MS. ASBURY: IID is in the process of decommissioning a couple of its units that serve the Coachella Valley and we are issuing a solicitation for a replacement resource. And we're limited on the number of hour we can run a gas-fired unit there. So, clearly, we are going to be looking at what the best resources proposed to us is so that we can work within those parameters. So, we're clearly looking at or we're thinking that probably what we'll get back is some form of a renewable with a storage component to it. And we're exciting to replacing those units, as well.

MR. TUTT: Yeah, in SMUD's case, in the long run we think about replacing those units. In the short run, we need them for resource adequacy. But we are concentrating on trying to understand how we can use them less.

And as an example, several of our facilities are cogeneration facilities that also supply steam to hosts, customers. And earlier this year we electrified the boilers in one of those hosts so that at times, when we cannot operate our power plant in the market, and we'll be able to do that. Whereas, previously, we had to supply steam to this host.

And we've done a similar effort at another one of our steam host customers to allow us more flexibility in operating our power plant there. And also, at our big, combined cycle power plant we've added some flexibility so we can use it less.

We do anticipate that as we add more renewables, in the long run that we'll be cutting back the hours of those facilities more and more.

But one thing I would say is, in addition to those stationery source emission, obviously mobile source emissions are extremely important for these communities.

And we're helping to partner with, I guess the City of Sacramento, and VW, the Sacramento Green City Effort. So, we support, for example, the Sacramento Municipal Quality Management District, and Housing and Redevelopment Area DAC Car Share Program as part of that effort.

We are supporting a community electric school bus project. And we have an incentive program to provide EV charging infrastructure to multi-family and workplace customers in our service territory. So that some of these multi-family residents, who are often lower-income, can take advantage of the green car revolution.

CHAIR WEISENMILLER: Actually, just following up on our observation and Martha's, and wanted to sort of tee up more for Edison. You know, ARB talked a lot about mobility options, clean mobility options for low-income, which is very important.

The flip side of that is that much of the pollution is from mobile sources, and a lot of it is from the goods movement along the freeways, in Southern California, which go through a lot of the DACs.

And so, you know, if you're really trying to reduce pollution impacts in those areas, you have to figure out what to do about goods movement.

And I know it's, again, near and dear to Ron Nichols' heart. But I mean, what can we do there?

MR. RENFRO: So, for our current transportation electrification proposals, two priority review projects really focus on the Port of Long Beach. And that is important because the Port of Long Beach is a major contributor to a lot of the particulate matter that affect a lot of the disadvantaged communities that are along that corridor that you had just mentioned.

Right now, we also have a proposal for medium and heavy duty make-readies that will also help with the particulate issues that we have in the disadvantaged communities.

Specifically, though, in terms of a corridor proposal, that is something that Edison is looking at for the next iteration of the transportation applications.

Initially, that was something that was thought about as a proposal, but we realized that we needed to further work with a lot of our local partners to make sure that we get this right because it is so instrumental to helping disadvantaged communities, and helping the State achieve its environmental and energy goals.

MS. PALERMO: Sure. Just to follow up. So, you asked what we can do immediately, and one of the areas that SoCal Gas has been pushing is for deploying ultra-low NOx heavy duty vehicles in transportation corridors. Those vehicles can reduce smog by 90 percent particulate matter by 100 percent.

I mean, in addition we can have compressed natural gas stations along those corridors to displace diesel delivery trucks.

So, the natural gas technology for these heavy duty vehicles is available now, and we've been working Port of L.A., and other ports in the area to work through these issues and get this deployed.

MR. FERNANDEZ SMITH: And on the PG&E side, I'm less familiar with that work. Just I don't oversee that. But I do know that they've put forward an application, back in January, that's very similar to a fleet-ready idea of how do we take some of the heavy diesel emitters and electrify those, and change those over. So, I do know that PG&E's in conversations and has put forward some proposals about that. But I'm not able to go as far in-depth as some of my colleagues here on those.

CHAIR WEISENMILLER: Certainly, if you could supplement later that would be good.

MR. FERNANDEZ SMITH: Uh-hum.

CHAIR WEISENMILLER: You know, again, certainly the South Coast has done studies that indicate that if you live near freeways in Southern California, the chance of your children getting asthma are relatively -- you know, 10, 20 percent. It's really a scientific fact.

So, that gets back to how do you really address the air quality impacts of the goods movement. You know, with the move to cleaner fuels. If you really are trying to deal with pollution, that's something we have to move on pretty quickly. At the same time, goods movement is a key part of your economy there. So, you know, we have to figure out a sustainable way to do that as part of these overall programs.

MR. CAMACHO: So, the Commissioner spends a lot of time thinking about electrification because that’s going to have an impact on the share or renewables and the demand. So, I know SMUD has been doing some stuff on the -- you know, giving a Level 2 charging station, or three-year free electricity.

Do any of the other utilities have incentives for, you know, that could be applied to DACs for EV adoption? And also, how are you preparing for the increase on the load? You know, ARB has stated that around 4.2 million zero emission vehicles and plug-in hybrids are going to be needed if we’re to meet our goals. So, how is that impacting your analysis?

MS. MENTEN: At MCE, I know you said utilities, but I can speak to that a little bit. It’s okay.

We do have rebate programs for charging station infrastructure to help electrification of particularly residential vehicles. We’re working on a commercial model because with a predominantly renewable energy load, like we have, we do find that the increase, particularly in residential charging, will cause more pressure in those evening short positions that we find.

So, at the same time as we’re working to promote electrification, because it’s actually of high interest to our customers, and obviously a necessary component of greenhouse gas mitigation, we’re also working to see if we can create control programs that encourage customers to charge at different times, promote workplace charging to really have a better match at that duck curve between production and use with electric vehicles. And also, exploring different rates, different tariff programs that we can use to help encourage some of that, as well.

We're tracking some of the DERPA programs at the CAISO to see if there can be any additional funding streams that we can aggregate and access to help offset the costs of charging infrastructure, as well. But I'd say those are developing markets right now, so it's a little soon to hear.

I wish I could have my colleagues from Sonoma Clean Power and Lancaster Energy here, as well, because they've done some really phenomenal things on EV infrastructure, too.

Sonoma recently had an EV incentive program where they provided an additional incentive for folks who are CARE qualified to try and make sure to direct some of those funding specifically to income-qualified participants.

And Lancaster Energy is working, actually, on electrifying a hundred percent of their bus infrastructure within their City. And Lancaster is in a unique position because they're municipal organization is also their CCA, as opposed to the JPA model, which we are at MCE. And that allows for really interesting integration, for example between ownership of public feets -- or fleets, excuse me -- and rate design to help offset some of the cost and really pursue some innovative models.

MR. RENFRO: For Southern California Edison, we have, as I had mentioned a little bit earlier, the Low Carbon Fuel Standard Reward Program, where customers are provided $450 to purchase an EV vehicle.

We also have a couple of different priority review projects that are also geared toward increasing the ownership of the electric vehicles.

And I think you had mentioned, also, what are the utilities doing to prepare for these additional loads, for these vehicles, or just electrify transportation in general.

So, at least within our EPIC program, you know, we're taking a look at doing demonstrations utilizing both the charging infrastructure, along with energy storage to see what we can do about turning these loads right now into a resource in the future, so that it would actually help utility planning efforts.

So, most of that is within the EPIC program on the demonstration side.

But really quick, I just wanted to mention that in terms of really getting additional gains for disadvantaged communities for clean energy products, at least within EPIC I see that as more of being market facilitation funding. Because utilities can do a lot of demonstration work, thinking about how circuits could look in the future for different customers. But if we don't do anything, really, in terms of moving the needle on actual deployment of these clean energy resources, I just don't see that we're getting much closer in helping these communities.

That's just a personal aside and just wanted to quickly throw that in there since this issue is kind of near and dear to my heart, having grown up in Tulare and Fresno Counties.

COMMISSIONER SCOTT: Yeah, I would just add to that. We are keenly aware of transportation electrification and how important it will be to achieving the climate goals, and also to our Federal Clean Air Standards.

We did have two workshops, earlier in the IEPR session, that were focused, specifically an entire day on light duty, and many of the questions that Emilio was looking at, and then a half-day that we did, where we did a deep dive into the medium duty and heavy duty side.

So, I know this part's focused a lot on the renewable energy and energy efficiency for customers. But we are also keenly aware, and also with the goods movement discussion as well. So, we will continue those as part of the IEPR, for sure.

CHAIR WEISENMILLER: Yeah, I was just going to follow up. I think Edison really took a leadership role in the post-San Onofre by trying to focus on the sort of San Onofre footprint. Particularly Orange County, in terms of how to do a preferred resource procurement.

It's probably time to start thinking about a similar-focused effort to try to do procurement in the DACs, you know, or for preferred resources.

MR. RENFRO: Yeah, that's something that we're taking a look at right now, specifically in the Oxnard area, to see if we can leverage some of the learnings that we've had in Orange County, and provide that in Ventura County for some of those future procurement issues that we see.

CHAIR WEISENMILLER: Good. No, certainly, again, we're not going to get into issues that are pending before us. But again, I would certainly encourage you to do -- you've got 40 percent of the DAC so, you know, that's a lot of area there to do such pallets.

But I would note, though, that the last time we got a report from Edison on the Orange County stuff, there was some implementation problems. So, we certainly need to step that up to get it back on track and at the same time expand that approach.

COMMISSIONER GUZMAN ACEVES: I just wanted to know how Erin was leveraging the Olympics for infrastructure needs? And certainly would be interested in helping conversations with the administration on that.

MR. RENFRO: Yeah, that is something that we're definitely taking a look at. Initially, we wanted to include it as part of our EPIC 3 application for our Smart Cities Project.

Now that the timeline is a little bit further out, we may focus on shorter-term needs. And probably looking at what we can do in the City of Inglewood, being that we have two major football teams that are putting together a very large complex in that City. And parts of that City are still very much still disadvantaged communities.

COMMISSIONER MCALLISTER: Okay. Well, I split my questions up into two tranches. So, just a couple more.

You know, Ashley, you mentioned SB 375. And I guess I'm wondering, you know, in the spirit of integration, again, these conversations around disadvantaged just have to be integrated across other things than just energy. And I think to take advantage of all the resources that are out there and just optimize the conversation.

So, I guess my question is how much are you sort of driving in each of your areas, or at least aware of this confluence of conversations around land use planning, and transportation, you know, 375 issues, and the energy issues directly related to -- I mean, SB 375 is not inherently a disadvantaged community conversation, but it is, really, I mean if we think about it.

So, you know, are you coordinating with those local governments, and the COGs, and all the entities that at the regional and local levels are doing the 375 work? And maybe get your thoughts, also, on how we could plug into those conversations more effectively across the state.

Ashley, if you want to comment on this, too, that's more than welcome, thanks.

MR. TUTT: I guess I'll just say that SMUD's certainly aware of the 375 targets. We submitted a long letter, a few years ago, when the 375 targets were first established. We haven't commented on the current revision of those targets because when we looked at it, it didn't seem that there was anything that really caught our eye as problematic, I would say.

But we do think that it's important to focus some of this effort on disadvantaged communities. And as you said, it's not really been a 375 focus in the past.

I'll just mention, though, we have an internal proposal, now, which I don't know will make to the end of the line, but it's an internal proposal to -- it's called the North Franklin Community Energy Project. And we're trying to, as a pilot project, prove that we can demonstrate a community-owned and community-shared solar program on urban in-fill sites can provide cost effective economic and environmental benefits in that area, without harming other ratepayers. So, that's the kind of effort that we're hoping to do more of.

CHAIR WEISENMILLER: I just wanted to follow up with Beckie a second. I mean, when we did the original Barriers Report we got into this question of the different definitions. And at some point, the more we thought about it, it was like, okay, step one, go back and get federal legislation. Well, that's probably not something that’s going to be successful right now.

Step two, you know, do we then try to conform the California, you know, get legislation to conform to the California definitions. It was a common thing of saying it’s a big issue. But just in terms of taking it on, you know, particularly given the federal situation, just struck us as pretty hard to do. You know, but we recognize it’s a barrier but it’s just like, okay, realistically what’s doable.

MS. MENTEN: I agree that this issue will become decreasingly important as the federal budgets are cut which limit the amount of resources that we can leverage in those federal funds. But I do want to point out that we’re talking about a difference of a $35,000 income, for 200 percent federal poverty, versus in some places $80,000 income, which is AMI.

So, that creates a very big gap between the funding that we, as a State can provide, because we have the more stringent income qualification standards here in California, at that 200 percent federal poverty level. And, really, whatever we can do to provide access to these communities, who are going to be particularly hard hit by some of the budget decisions of the current administrative I think would be of benefit.

So, I realize it’s a barrier, but I just want to point out that it's not an insubstantial one.

MS. CHARLES: I just wanted to mention we're almost out of time, so is it okay if this --

COMMISSIONER MCALLISTER: I just have one more question actually, yeah, so I won't keep people. I see we have at least two minutes left.

MS. CHARLES: Okay, two minutes.

COMMISSIONER MCALLISTER: So, along a similar, sort of a parallel line I wanted to ask Beckie, you know, you mentioned the Program Administrator Cost Test, and this runs the risk of getting into weeds, and there are too many weeds often, and I think we sort of -- the weed whacking gets to be a pretty large task, just in and of itself.

But, you know, from my perspective in energy efficiency, and if you look at other resources that we're developing along these lines, that overlap with the low-income and disadvantaged conversation, like the AB 758 conversation, you know, the existing buildings, getting energy performance in our existing building stock.

The solution is definitely going to be leveraging private capital. So, we have to get as much private capital into these conversations as we can. And the benefits often are not energy benefits, right.

People do these upgrades for myriad reasons. It's not, actually, even primarily to save energy or to reduce their bill, although that's important particularly for low-income.

But it's often about comfort, and health and safety, and all these other things that we talk about, right. So, there's a huge, huge variety of benefits here.

So, you know, from the point of view of, okay, what policies can we adopt to encourage private investment and encourage our programs to leverage, and to incentivize and to encourage that private investment?

You know, could you just maybe give us a couple sentences about why the PAC test and the TRC are very different along those lines?

MS. MENTEN: Yeah. So, just briefly, the Program Administrator Cost Test looks simply at the dollars that the utility puts in to accomplish a unit of energy savings. Whereas, the Total Resource Cost Test looks at the entire cost of a project, including what the participant has paid which, in some cases, may be funded by private investment.

Therefore, you're looking at the overall impact versus just the utility investment. Using just the utility investment, some people think makes more sense because those are where that boundary should be drawn around the investment the State is making. And I do think it would enable greater private investment.

I want to mention that the complication of utility rebate programs, I would say ours as well, and many of the requirements that come along with ratepayer-funded programs make them not necessarily a great match for private capital investment. Because private capital investment really favors deal flow and high transaction, low transaction costs, and a lot of transactions.

We've seen that with PACE. A lot of the PACE programs that happen throughout the State don't happen within the realm of utility rebate programs.

And when we lose access to those deal flows, we lose access to policies that can help really make sure that we're getting the best bang for our buck out of those projects, as well.

So, I think your point is a very good one. We know we can't get there without the private capital. But in order to get that private capital we need to make it as easy as possible for that private capital to engage in those projects.

And part of that, also to drive the policies we need, involves finding ways that we can get private capital to customers who may have less than ideal credit. And that can be an area where credit enhancements and other ratepayer dollars can really help invest and drive programs. The simplicity and access to capital are really important.

COMMISSIONER MCALLISTER: Thanks.

MS. CHARLES: Are there any final questions?

Okay. Well, I wanted to thank the Commissioners for these thought-provoking questions. And thank you to the panel. It is great to hear about all of the work you're doing. And I look forward to continued discussions. Thank you.

(Applause)

COMMISSIONER SCOTT: I wanted, just before we break for lunch, I did want to let folks know that the link for the Disadvantaged Advisory Group is up and running. It's on our webpage. And maybe we can provide that for you after lunch.

We really are looking very much forward to your comments on that.

CHAIR WEISENMILLER: Yeah, and for those of you that have advisory committees, you might encourage some of your members to apply.

MS. RAITT: All right, we'll be back at 1:00 then. Thanks.

(Off the record at 12:03 p.m.)

MS. RAITT: So for this afternoon, we have a panel on small business -- excuse me.

First, before our panel, excuse me, is a presentation on Consumer Protection in the Clean Energy Economy with David Fogt from the Contractors State License Board. And we can go ahead and get started.

MR. FOGT: Good afternoon. I'm David Fogt. I'm the Registrar for the Contractors State License Board, and it's a pleasure to meet with you this afternoon.

In preparing for this presentation, I met with the public affairs officer that meets with consumers on a daily basis. And I asked her, "What are the barriers that you're seeing with your consumer scam stoppers and low-income consumers contracting for energy efficiency projects?" And she brought forward three of them, and that's what I'm going to talk about for a few minutes this afternoon.

One is that we do have unscrupulous individuals that are nit the marketplace. We need to identify and remove them. The majority of contractors do a great job. But if you have contractors that are misrepresenting the work, it can put a cloud on the industry and discourage people for contracting for the projects that they certainly are entitled to and would benefit from.

We also have contract violations that exist that we can correct. I believe that the Contractors Board could work closely with the Energy Commission to address some of those inconsistencies. That would give the consumers more confidence.

And then finally, many consumers do not understand the programs and resources that are available to them.

And with that, I just want to give you a little background.

In 2016, we noticed an incredible increase in solar-related complaints. Our Board directed me to establish a Solar Task Force consisting of investigators in our Public Affairs Office. And you'll see the complaints that were received and what we were able to achieve.

One of the goals of the Task Force is to meet with different state agency partners and industry groups to identify ways to reduce the number of complaints, increase satisfaction and, also, when a consumer has been harmed, to provide them financial redress. And you'll see on this slide that we were able to recover over $600,000 for consumers that had been financially harmed.

In 2017, we're continuing to receive about 40 complaints per month. We'd like to see that reduce to probably 25. We're always going to have consumer complaints, but we do think we're receiving too many. And we met with the solar industry and other stakeholders to look for ideas on how we can reduce those complaints. And I'm going to quickly share with you this afternoon some ideas that we came up with.

This is an overview of the type of complaints that we're receiving. And one is regarding the misrepresentation regarding, we call it, the green-funding complaints where a consumer may be led to believe that the solar system will be paid for by their existing property taxes. And when they get their property tax bill, they realize that it's gone up substantially.

We have a lot of -- we were having, it's been reduced, though, Power Purchase Agreement complaints. A lot of the low-income consumers are able to participate in the CARE Program and other programs where a kilowatt hour of power maybe costs them $0.10 to $011. And when they sign up for these Power Purchase Agreements, they're paying as much as $0.18 a kilowatt hour, and that's a shock to them when they get their bill. And they claim they didn't realize that when they entered into the contract.

And then lease agreements were problematic. Back in 2016, we somewhat corrected the behavior of some contractors and misrepresenting what the lease payments will be and how they escalate. We have one consumer in Visalia that her house was worth $200,000, and she signed up for a lease that would require payments exceeding $150,000, and so it was quite staggering. And she couldn't make the lease payments, and the contract terms were not clear.

Now why is this happening? The next slides kind of give you an idea of what we're seeing.

We have contractors, some unlicensed, some salespersons that aren't registered. For home improvement, you've got to be registered or it's a misdemeanor. In the event your salesperson is not registered, you're not entitled to collect on the contract. You don't have a security interest in the contract itself.

And one thing I think the Energy Commission would be interested in is that many of the contracts are not in the language that the customer speaks, and that is a violation.

So there's an opportunity here to make sure that contractors are licensed, the salespersons are registered, and that the contract is in the appropriate language.

Something else that we're observing is that they don't -- contracts don't always include the three-day right to rescind.

And other contract requirements are not being adhered to. And one that's very troubling is when it's -- we call if the green funding-type contract where the funding company or the lender pays the contractor directly, rather than the lender paying the consumer correctly. And that can be a problem when they're paid in advance of the work being done. And we do have a couple of contractors, unfortunately, that were paid in full and didn't finish the contracted work.

This slide shows some opportunities that we've been exploring, and that's to work with the different groups. We hosted a meeting similar to this in our building in Sacramento to talk about how we can share information with PACE, with HERO, with some of the other funding companies, so that the information is out there for the contractors to use when they're selling these contracts to make sure they're doing it appropriately so that, again, that's really my thing, there's confidence in the industry and we can expand the number of energy efficiency projects that are underway in California.

These are some of the resources that we have.

We do have educational materials. We have a Complaint Form, I'm going to show you in a minute. We have a Statewide Investigative Fraud Team. If we have somebody that's unlicensed actively performing a contract, all you need to do is call that lead in and we'll respond to it. But perhaps most importantly, we have a Mediation and Arbitration Program. So you become aware of a consumer that's been financially harmed or is unhappy with the contracted work, we can help to resolve that. And part of this program is to make sure that we work with the contractor to correct any deficient business practice they may have, so they can move forward in a positive manner.

This is a Complaint Form, available online. It can be filed electronically.

And this is the last slide. And what I really wanted to close with is just to explore some of the opportunities that we have to work together. I talked a little bit about contractors and the home improvement salespersons that are really the first ones that are out there in somebody's home.

I think we have an opportunity to conduct maybe a joint webinar. We have a list of contractors that are doing these energy efficiency projects. We know who they are. We could provide them to participate in a webinar to talk about the programs that exist for consumers, so that they could use these programs, qualify to get the work done, but make sure that the contractors are licensed, the salespersons are registered, and the claims that they're making or the statements they're making in somebody's home are approximately and they're not using predatory practices.

We also have a mailing list of over 400,000 individuals that are on it. So if you have information that you would like for us to get out, we can certainly use that as a tool. And we have industry bulletins that we routinely send out. So it's all about, I think, making the contractors aware of the programs.

We can also use our Public Affairs Office. And I mentioned at the opening of this presentation, we have one of our employees that does consumer scam stoppers daily with legislators. And so she can give out any information that you may have to let consumers know about the programs that are available to them.

And that concludes my presentation. I'd be happy to answer any questions you may have.

CHAIR WEISENMILLER: Yeah. You had indicated things, that the number had jumped considerably. What was your baseline a couple of years back --

MR. FOGT: Well, we went back --

CHAIR WEISENMILLER: -- in terms of complaints now?

MR. FOGT: -- to 2015. And what it bounced -- or it jumped from about 20 to over 40. And so, you know, it looks like 100 percent increase. It was just that we weren't receiving a lot of solar complaints prior to that time.

CHAIR WEISENMILLER: Right.

MR. FOGT: So just to put this in context, though, we receive -- we complete 19,000 investigations a year. The solar complaint are a small portion of that. So I want to make -- I really want to emphasize that the solar industry as a whole is very clean and doing a good job.

CHAIR WEISENMILLER: That's good.

Do you connect to the utility programs, so that if someone's been convicted of a complaint, do they make sure they get off the list of the people that the PUC or the Energy Commission might rely on?

MR. FOGT: We do not. That may be an opportunity we should explore.

CHAIR WEISENMILLER: Also, in terms of, I don't know, do you connect on -- again, is do you connect to the AG's Office on -- you know, I just -- I was in Brown 1, and we did a lot with solar water heating, and we did a lot with the solar -- or the wind, the tax credits for wind machines. And I think eventually it turned out the AG's Office was setting up, basically prosecuting people on both those in terms of fraud. How actively at this stage?

MR. FOGT: Well, we use them for our administrative actions, their licensing division. We're not working with them, other than that.

I will mention, though, that we are closely working with the Federal Trade Commissioner. It's somewhat on a limited basis. But we do have some contractors using the robo calls, and they're targeted certain communities that are low-income communities. So we're working with the FTC to address that.

CHAIR WEISENMILLER: Yeah. I think, particular when we were doing the Barriers Report the issue, in part, we were focusing on were entities that were really trying to prey on low-income communities. Obviously, that was, you know, particularly, we're trying to open up access there, trying to make sure that we're just not making it easier for people to scam --

MR. FOGT: Yeah. So the partnership --

CHAIR WEISENMILLER: -- these communities.

MR. FOGT: -- with the FTC is right now focusing on Spanish-speaking low-income consumers in Southern

California.

CHAIR WEISENMILLER: Okay.

COMMISSIONER MCALLISTER: So thanks for that. I really appreciate it. And our staff, you know, I think at the Commissioner and you all know that our staff has worked together extensively on many of these issues already, and so I really appreciate all the collaboration that you all provide. And I think I, well, I 100 percent agree with you that there's a lot more we could do together.

Somewhat we are both, in our different ways, resource constrained, obviously. I mean, your investigations, I think, often are really unscrupulous people that don't have licenses at all, you know, and that really should be your top priority.

But at the same time, you know, we have the Building Code, and we have enforcement issues, kind of more on the retrofit side with energy efficiency and local governments being constrained on resources, as well. And sort of, look, what agencies can really get involved there and make sure that the jobs happen in accordance with law, and that they're safe. Health and safety, obviously, is number one. But we need those efficiency savings to reach our doubling goals and all the other things we're trying to do on the energy front.

So I think there's much collaboration we could do. And I wanted to let everybody here know, also, that SB 350 does ask the Energy Commission to come up with a responsible contractor policy, and so we're working on that. It's one of the pieces of our implementation, you know, plan that we're kind of just getting to. But it's -- you know, again, everybody is under resourced and overworked, right, but we're getting to that. And I think there's a -- it will be a good step forward to lay out a plan in some detail about what is needed to hold contractors to account for the work that they do. So that's sort of, you know, got a carrot and stick component. And so obviously we need that stick. You know, people have to understand the law and comply with the law.

On the other hand, we could do better on the building code to make sure that it's more -- that it's understandable, that local government officials know what they're supposed to be doing, as well, and the contractors.

So I guess maybe to get to a question, you know, what -- in terms of the levers that you have in your agency to kind of call out that kind of behavior and create some culture, some incentive in licensed contractor in the community there to behave? I mean, what are kind of your main mechanisms to get good behavior?

MR. FOGT: Sure. And I would like to just echo what you said about working together, and just say a plug for Tav Cummings (phonetic) in your office. We've done quite a bit of outreach together; it's been very effective. And one of the outcomes of that outreach is we've developed a Permit Complaint Form. And so if work is done, let's say heating and air conditioning work is done without a permit, a person can file anonymously in a very simple complaint form and we'll investigate it.

But one of the tools that we have is that if somebody works without a permit, we hold them 100 percent accountable for whatever it will take to comply with the code requirement that somebody recently implemented. So if somebody is contracted for a job and they didn't do it per code, even if that code requirement was included in the contract, they're responsible for it. We can address that either administratively through a citation or an accusation to revoke, but more often we're using our Arbitration Program which is binding, gives a financial award to an injured consumer.

So we really do have some very strong tools that are available. And our Board implemented a Zero

Tolerance Policy for Permit Requirement, especially as it relates to energy Efficiency.

So I think by identifying that work, by all means, let the consumer know that they should file a complaint with us. And a contractor is going to need to go back and make it right at that contractor's expense.

COMMISSIONER GUZMAN ACEVES: Thank you, David. Okay.

I just wanted to also share that in our Southern California office, we've also seen an increase in complaints on solar contractors that have done a number of the same unscrupulous acts, high interest rates, not really disclosing what the real rate savings would be.

So as you probably know, we have an open proceeding on the issue of consumer protection within our NEM proceeding.

And as you probably also know, there is --- Assemblywoman Gonzalez Fletcher has a bill on consumer protection for solar. I know that one of the big proponents that we're considering is in her bill is a disclosure document that really outlines specifics that would require us to work together on developing.

And I just wanted to know what your thoughts were, if you had any general thoughts on that. And certainly wanting to follow up with you to get any final input to that piece of legislation in there, and obviously working together on our proceeding.

MR. FOGT: Yeah. We're looking forward to continuing to work with you on that, and also the author on that bill.

Our thought, though, is what we really need to do is to make it clearly understandable to the consumer what they're contracting for. And they need to know what the baseline is, what they're charging -- what they're being charged today for energy and what they'll be charged if they enter into this agreement. And that's really what it's all about, is the disclosure, so that they don't get their first bill and realize that if there was cloud cover or it wasn't generating power, that they're still going to have to pay the public utility. You know, that's been a problem with a lot of these consumer complaints. And as you mentioned, the interest rate being much higher than what they could have gotten from a bank, also problematic.

But I think that solar is a little bit different than the regular Home Improvement Contract Form Law, especially as it relates to a lease. We need to take a hard look at it. That's why that bill's pretty exciting if we can make that work. And I know that you're probably working with the California Solar Energy

Industry Association and Bernadette. I think she's got some very good ideas.

So I really think it's about just getting together and finding out what we can put in there so that it's not too onerous, so that a consumer doesn't read it but they get the information that they truly need.

COMMISSIONER MCALLISTER: So you explicitly mentioned the PACE activity, you know, Property Assessed Financing on the leasing, you know, where a project is financed and then paid over time through the property tax mechanism, you know, with the County Assessor's Office. And so that program actually is -- you know, it's been scaling tremendously. It's got a lot of traction. You know, the contractors actually find it, the ones that are, you know, involved in selling jobs and financing with PACE, find it easy to work with. And they can sell it across a kitchen table and it's sort of quick. From their perspective, it gets done what they want to get done, which is job flow; right?

So -- but we're seeing, you know, the fact that the interest rates are a little high. And there's a few cases here and there, you know, that are a little troubling in terms of, you know, the consumer responsiveness. And, you know, I know that the PACE providers are working hard to sort of avoid those negative stories so that they can really focus on the positive, you know, as they should.

I guess do you have any sort of insight from that side of the firewall, you know, with the contractors themselves as to, you know, what their perspective on PACE is as a way for them to just enhance their business and really grow the sector?

MR. FOGT: Yes. We've met with PACE, and we've met with many contractors that participate in it. And what we're recommending is that we would have a webinar. It would be something the Contractors Board would put on where we would provide education to the salespersons that are negotiating this, just so they're not making any false statements. Generally, it works very well. It's just where you have a problem is where the representative says it's a government program or makes a false statement as to how it gets paid back.

And the other issue, which you mentioned earlier, is the interest rates can be exorbitant; they're not always the same. And just as long as somebody understands that what the interest rate is or making an informed decision, it can work out very well. And we're not seeing at this time an increase in the PACE-related complaints. So after we've had the meeting, it seems that they've gone down. They're trying to work hard to make it even more successful than it's been today.

COMMISSIONER MCALLISTER: That's great. Yeah, I think that's another area we can really work --

MR. FOGT: Yes.

COMMISSIONER MCALLISTER: -- together on. Because we, again, you know, in our energy goals, if we silo ourselves into the energy part of the economy, we've got big goals to double efficiency. And PACE is really one of those financing mechanisms that allows us to even think about getting to the scale that we need to get to. And so, you know, we want to have all those options on the table and want to make them work.

MR. FOGT: Absolutely.

COMMISSIONER MCALLISTER: So let's keep working together on that.

MR. FOGT: We want to work with you on that.

COMMISSIONER MCALLISTER: Yeah. Thanks.

CHAIR WEISENMILLER: Thanks. Thanks for being here.

MR. FOGT: Thank you for having me.

MS. RAITT: Thanks.

So next is our panel on the Small Business Contracting Opportunities in Disadvantaged Communities.

And the moderator is Tyson Eckerle from the Governor's Office of Economic -- of Business and Economic Development, excuse me.

MR. ECKERLE: Well, thank you very much. Very pleased to be here.

I just wanted to start off just describing a little bit about what GO-Biz is, or the Governor's Office of Business and Economic Development. Our affectionate name is GO-Biz, you'll see that around, BIZ. We also have a CalBIS Unit, which is BIS, to make it more confusing, so that's Business Investment Services, so hashtag GO-Biz.

And so really what GO-Biz is kind of a one-stop shop for business to try to navigate the state. So on the Business Investment Services, we do site selection and we help connect them with incentives.

We also have, kind of pertinent to this panel, a Small Business Advocate, which I think is one of the coolest titles in state government. I think they're all over the place, I think maybe even on our panel. But our Small Business Advocate is Jesse Torres. And so in the context of this panel, you know, small businesses are trying -- and you're working with small businesses that are trying to navigate the state, we sit there as a ready resource to help connect the dots and make sense of all the contracting rules and all that type of stuff.

So really what we're here about today, I think, is growing opportunities in spreading, you know, business growth throughout the state to kind of -- in an equitable way, especially as we have these great environmental goals, there's a lot of economic benefit that can be benefitted there.

I think, you know, as a foundation the Energy Commission and ARB together did a really great job, kind of, on the SB 350 reports. The companion report has been really impressive. I think there's a lot of great success stories baked into that. And then also inherent in there is we have a lot of room to grow and a lot of opportunities to expand into disadvantaged communities, and that's what we're talking about today.

You know, as we were sitting here, the last presentation had a good quote at the end, you know, "By educating consumers, we can build a better solar industry." And I think in this case, you know, by educating small business, we can build better, broader opportunities for growth. So maybe just to steal a quote from the previous panel.

But if we can go to the next slide?

So really, you know, the most common word here in the barriers is lack; right? There's a lack of access to information. We need more technical assistance and workforce development. Lack of access to financial resources and lack of access to support and opportunity. And I think our big challenge here is how do we prioritize and kind of one by one go at these key challenges that are facing small business as we start to, you know, do our best to grow this.

And so I think, you know, in that prioritization that Commissioner McAllister had mentioned, you know, the challenge in this kind of resource-constrained world that we live in. And so what we really want to do is figure out, how do we go deep on these things and make meaningful progress to small businesses and not spread ourselves so thin.

If you can go to the next slide?

So this, you know, the fundamental recommendation, I'm not going to read this whole thing, but was really for -- to do an in-depth study and prioritize that. You know, it's data-driven and stuff. But here, you know, today I think we have this fundamental recommendation, but the job of this panel is to kind of bring this to life, kind of how do we turn this recommendation into something that makes sense in the -- you know, for small businesses that can actually have that meaningful lasting impact. And so that's really what this discussion is focusing on today.

If you'd go to the next slide?

So, you know, we have some guidance for the panel. We really want to focus in on the key issues that small businesses and disadvantaged communities face. We want to focus on action items and solutions, so really looking for those areas that we can work together, you know, at the state with the different advocates and small businesses to really make meaningful change. And we want to leverage lessons learned from any previous things. You know, we talk a lot about pilot projects. And there's people who have been on the ground working on these issues for a number of years. And this is a great opportunity to kind of pull that focus together.

So I think the next slide there has these barriers back, just to drive it on home, and maybe we'll leave it here, and then we can flip to discussion questions after. I know they have each -- each person on the panel has a presentation. Then we'll get into the question and answer right after that.

So Tanya, do you want to start? I know you've --

MS. LITTLE: Sure.

MR. ECKERLE: Yeah. Great.

MS. LITTLE: Good afternoon everyone. I'm Tanya Little, California's Business Development Program Manager for the State of California. I currently reside at the Department of General Services. I also do a lot of work with GO-Biz, so Jesse Torres and I are very close friends and we advocate all throughout the state.

Just so you know, I've been appointed since July of 2014. And the Business Development Program missions is to enhance state commerce with California's emerging and under-represented businesses through community engagement and strategic research.

Since I have a short time, I'm going to read everything quickly here.

Points to co

challenge on small businesses when contracting with the state. So what I do is I meet with small businesses, large business, prime contractors, subcontractors, community leaders and groups.

And so in November of 2016, with the help of the Contractors State License Board, I released a survey to contractors to try to find out what the gaps were and what their challenges were. We're in the process now of reviewing that information, and we'll publish it later this year.

So what that revealed, we received about 2,300 responses. Many of the contractors are financially insecure, and it takes longer for them to receive payments from prime contractors, is one of their main problems.

They usually do not attend networking events during business hours. So the ones that are very small, we don't see them. When I go out I see some of the same faces, and the people I need to reach aren't there.

They find their administrative burden and the state bidding requirements too complicated and costly, eating up their already slim profits. Those that do bid do not usually travel more than 50 miles from their business location.

I have a handout for you which goes over some demographics. And when you look at all the respondents, 78 percent of them, of their earnings, come from private contracts, a little over 10 percent from city, county and school districts, 4 percent contracts with the state, and another 3 percent with federal contracts, and 3.5, say, with public utilities. And then we have the breakdown that includes our disabled veterans, woman-owned business, small business, and then the demographics of minorities.

The State of California discontinued its Diversity Program in November of 1996 due to the Prop

209, the California Civil Rights Initiative. And DGS has a statutory authority over purchasing for the state. And we do also delegate those activities to state departments.

We have a purchasing authority roundtable which are members of a consortium of appointed state procurement authority contacts. And we would hope some of the purchasing authority contact officers and procurement contracting officers will come and attend those quarterly meetings. That's where they promote and help guide DGS in writing and updating the state contracting manual.

In early 2015, I convened a state Collaborative Focus Group with state departments to identify gaps they experience and opportunities in the areas of construction. And what they said was many firms do not travel, which that was what the PERM (phonetic) said, as well. And that the state officials are having difficulty finding firms in rural areas.

The other problem was prime contractors say that for private projects -- let's see. Prime contractors for private construction projects and state and local government compete for many of the same California certified small businesses for subcontracting opportunities. Small business can't meet bonding requirements and lack resources to meet the needs of the prime contractor. And the prime contractors basically say they experience high bids from subcontractors but low bid requirements from the state government.

So that kind of gives you a nutshell. I have a lot of information. I'm open for questions. I can give you any information we have about the program with regards to small businesses and disabled veterans, and some of the contracting requirements.

Thank you.

MS. GREEN: Hello. My name is Stephanie Green. I'm with the California Public Utilities Commission. I'm in the Executive Division, and I oversee our small and diverse state procurement programs, as well as our GO 156 Utility Supplier Diversity Program. So I have an interesting perspective on sort of the public and private sectors and opportunities for small, diverse vendors from both perspectives. And I also have a Local Government and community Outreach group. So those are some of my scope of responsibilities.

And when I look at both the private and -- private sectors, many of the things that we hear from firms who are trying to get contracts, who are trying to thrive and get businesses, are, first of all, geography in many disadvantaged communities is a big issue.

Simply, as Tanya alluded to, they don't want to travel beyond 50 miles. So the quantity of opportunities, the types of opportunities are more limited. There's also a more limited selection of vendors in these areas in terms of the types of fields they go into. So especially from the utilities' side, I think also from the state side, when we go these areas, often times there's not firms who do the businesses that we're looking -- or the types of services that we're looking for.

A lot of the contracts and opportunities to enlarge and specialize, many of the vendors in disadvantaged areas are not prepared to take on these large and very specialized contracts. They don't have the capacity. They may not the financing, the insurance, the bonding, the experience, understanding of bidding processes, all of that. There's a lack of resources in terms of business development centers, banks, all the resources that small and diverse businesses need to thrive. It's difficult for them to get the cash flow. So if they did get a contract, waiting for the payment terms is problematic.

And they just also may not have the capacity to meet the strict bid requirements. Sometimes, for example, let's take construction, a firm may say, okay, I can do business with you in your rural area, but I need you to have a fleet of ten trucks, and those all need to be bonded and insured. So maybe they may not have the capacity, they may not have the size.

Candidly, they also don't have access to the network of information, the network of resources, the network of other vendors and businesses to learn from.

And, candidly, there is, I consider it, a lack of good faith in that many, I think, have a biased against disadvantaged communities. And so I think there is a bit of stigma, there is some bias and preconceived notions, and that's an issue.

And because of the contract size, the opportunities are more limited because there's no opportunity for subcontracting. And many smaller, more rural firms may not be able to be a prime, but they could be a subcontractor. But these contracts are of a size and technical nature that often they can't be broken out, and they don't utilize subcontractors.

So that's some of the issues, just in terms of the landscape. And I think about metrics and how we measure success. And predominantly for the GO 156 Program and for the state, it's often just revenue and percentage, how much money did you spend with DVBs? How much money did you spend with small businesses? What is the percentage on the GO 156 side? It's how many contracts? How many firms got the contracts? What is the revenue? How much procurement dollars? And what was the percentage? And those are all great metrics.

But I'd also like to see other metrics in terms of more the macro level, which is the job creation. What is the benefit to these communities? Where are the opportunities? Are they increasing their jobs? Are they giving -- what kind of tax dollars are they giving back to the communities? Are they giving back their own profit dollars? All of these are the kinds of metrics that I think would be really important in evaluating any programs that we come up with, and also assessing the landscape.

As I look at our GO 156 Program, and I think it's a great source of inspiration in many ways because they did $9.3 billion last year, and over 31 percent of that was with diverse firms, which is women, minority, DVB, LGBT firms. And some of the things that really stand out for lessons learned from that side of it, one, there's a firm policy of goals. It's 5 percent women, 15 percent minority, 1.5 percent disabled veteran. There is no LGBT goal yet because it was newer to the program, and we'll see in the future if we set that goal, but first, having that firm program. On the state side, same thing, there's the state policy of 25 percent and 3 percent. So having a firm policy is really helpful, and it sets goals and standards.

It also, I think, leads to our executive-level commitment, and it really comes top down. And if you have that executive level commitment, you can create a culture where they value diverse firms. They could value firms from disadvantaged communities. But really, that top-down leadership leads to the internal commitment, which leads to that culture.

Many of them, the firms, the utilities, maintain transparent and very easy to use supplier diversity websites with relevant information to the diverse suppliers. I'd like to say we have something similar on the state side; I don't know that I could say that. I know there's issues with our eProcure. But to the extent that you have that portal and that web presence, that is very helpful.

We have a certification on the state side, a small DVB. But also on the GO 1, it's women, minority, LGBT certification. And there's a supplier clearinghouse with a real set of -- a database of vendors and vendor data, so we have that database we can to. On the state side, we do have a small and a DVB database, but that database can be very useful.

Outreach, really having strong solid outreach and conducting outreach, and technical assistance and capacity building, really helping the vendors. On the GO 156 side, it's a multi-tiered approach, which means it has opportunities and resources for the small, for the mid, and the more advanced firms. It's everything from entrepreneur and executive leadership training to just basic business skills, business plans, marketing, finance. But there's also -- they also do training in safety and cyber security, e-procurement. There's contract-readiness workshops. There's meet the primes. And there's mentor protégé programs. All of this is some of the types of technical assistance and capacity building that I think benefits and helps our businesses to thrive.

And as I look at some of these lessons learned, I would say, if I look at some of the things that we could do to try and create a program for disadvantaged communities, I would say, predominantly, let's have a program, a mandatory program, we could, with goals and -- for the low-income and disadvantaged communities. Include a program preference, like we do for DVBs and small business. Make sure that the program is designed so it should -- will garner executive level commitment, which will create the internal commitment and environment to foster this success.

Provide effective training. Simplify and streamline our contracting processes for the disadvantaged businesses. Provide employee education and make sure that we have the internal resources to support these businesses.

Greater transparency in our procurement processes.

Partner with the CBOs. The CBOs play a large role and can play a large role. And provide education and mentorship.

And then reinforce the prompt payment policies and provide some of the financial resources and assistance.

And then I think certification; consider whether or not there should specifically be a designation for perhaps disadvantaged businesses.

So those are just some of my thoughts and observations and learnings. And thank you for your time.

MR. GANT: Good afternoon. Thank you for having me. My name is Simeon Gant and I'm the Executive Director of a nonprofit called Green Technical Education and Employment. And our goal is to train and teach high school and college students about career opportunities in clean energy, energy efficiency, and sustainable living strategies. And what we have been doing is teaching young people about solar, how to install solar, and we've been teaching them the theory behind solar, we've been teaching them energy efficiency, and having them do Prop 39 Energy Surveys. They've been learning this process. Also, agricultural, and so on and so forth, construction, LEED certification, and those type of potential career opportunities.

However, right now most of our students don't have a place to go after we teach and train them that. A lot of the companies right now, they're not going to hire our students, many different reasons why; some of it is bias.

When we look at -- in terms of small businesses, we are working as closely as we can with small businesses that would like to get contracts with the Energy Commission. Many of the businesses really don't even know the Energy Commission exists, let alone the fact that there are opportunities there for them.

So what has been said today by these three already, I could just repeat, it's right there, they've said it all. But we want to try to figure out how to continue to -- just figure it out.

I have a young man who's here with me today that has his startup engineering company. He's an engineer in design and he needs to know. He has no clue as to where the opportunities are located.

So maybe there are opportunities to do more workshops. I know that there are workshops that are done, but are they done in the communities of color? Are they done in the low-income communities, these workshops and these education opportunities?

And so, you know, I really have to commend the PUC, as well as the Energy Commission, for putting forth this effort. You know, the PUC kind of did it many years ago, and I see that the Energy Commission is doing it, as well, and it's really good. But, you know, if I had my druthers, we'd reverse 209. We would make it very clear as to who and why we're trying to assist. There are too many small businesses that can't get in.

And so we have to keep pushing. I'll continue to train our young people, but there is a bias or a stigma against new applicants, okay? There, you know, we also need more public workshops because the language is often convoluted.

In terms of certification, and there's two different certifications or three different, there's a federal certification, there's a state certification.

SMUT (phonetic) has its own certification. I don't know if nonprofits or CBOs need to be certified or not. It's just, you know, we just -- if we could kind of conform it all, somehow, someway, it would make it easier for small businesses to get in.

If we could publish a list of likely solicitations for the year, I know sometimes that's difficult, but some of these contracts the agencies are aware of well in advance. If we could publish that in advance, I think that it would be helpful.

After someone loses an RFP or loses the ability to get the contract, have an opportunity to have that discussion about what they can do make their application stronger the next time.

I think, really, those are kind of some of the main things that I wanted to mention. It's kind of a brave new world for some of us after AB 32. And our goal is to engage our young people, who are now ready to kind of figure out, okay, what's next for them. But if they get to this point and there's a roadblock, well, I've wasted my time in trying to train them and prepare them for this new world. And if we only have the same people getting these contracts, if we have contractors who were doing something different before, but now because of AB 32, they get a chance to change gears and get in and they're going to still be the same people to get the contracts, we're not opening it up for people who just haven't had that opportunity.

So thank you for my time.

MS. CHEN: Good afternoon everyone. My name is Stephanie Chen with the Greenlining Institute. We are a racial equity organization focused on creating better economic opportunities in communities of color. So I would like to start with an enthusiastic double click on Simeon's comment about reversing Prop 209, the California Civil Wrongs Act [sic].

And then I want to zoom us out here for a minute. I think you've got a lot of great resources on the panel who are talking about the challenges and the opportunities around state contracting. But looking at the Barriers Study in its totality -- and those are really key areas of improvement and key opportunities for small businesses. And folks are already starting to make some inroads in that area with CalSEED, with modifications around EPIC Program, as well. So I think that there are some strong steps in the right direction being taken there.

But if we take a step back and we look at the whole Barriers Report in its totality, one of the recommendations that I have is don't look at all those chapters separately. Don't have the Chapter 5 conversation over here and the Chapter 2 conversation over here, and never the twain shall meet. All of these investments are really looking at pushing the same things into the same communities.

We want to get -- we want to get clean energy options into disadvantaged communities, into our environmental justice communities. And we want to make sure that businesses in those communities have opportunities, as well. And a lot of those opportunities will come from state contracting, they'll come from utility contracting. But a lot of those are going to be consumers going out and buying stuff. They're going to buy stuff from a big-box hardware store. They're going to buy stuff from their local hardware store. They're going to sign up with the local contractor to weatherize, to talk about solar, things along those lines.

And so I think one of the key things that we need to do with respect to the study is take a look at where purchasing is going to happen as we push towards 2030 and make sure that we are creating small business opportunities all across those boards. We've got a good start with government. We've got a good start with utility purchasing in GO 156.

I don’t think we have, necessarily, a good enough start when it comes to how do we create a system that provides individual consumers, be they small businesses themselves, be they homeowners, landlords, whoever, to say, hey, here are some of the advantages of going with a local business versus going with something bigger, something statewide? Here at the -- here are some of the options in your area for local contractors, local small businesses who are certified to do X, Y, Z. Providing that information, providing a why this is important, and making sure that when those customers are making their Chapter 2 investments, they’re doing it in a Chapter 5 way is really going to help us, I think, get there without -- with a minimal -- with maximum effectiveness and minimal disruption. So I think that’s a critical point.

And then we need to think about financing. And I actually think that the agencies that are in the room here are the perfect ones to start thinking about financing. You already have, from folks at the PUC, from all of the other conversations with small businesses that are going on, you have a real clear sense of what the barriers are. And I have not been doing this work as long as many of the other people in this room, but the barriers haven’t changed. They’re the same. And there are some federal resources out there that were called out in the study, which I think provides some good options for folks. And I also 100 percent believe that California can do it better, particularly than the current federal administration.

So I think that there's actually a lot of promise here, and especially when it comes to some of these areas. As you're engaging in the study, don't reinvent the wheel. Assess what you've got already, figure out what questions haven't been asked, and then let's get to solutions. Let's just cut right to it.

Thanks.

MS. TELLECHEA: Hi. Good afternoon. Thank you for having me here. My name is Angelica. I'm with Brownstone. I'm a small business and I provide strategic development and outreach. And I have the unique job of having clients that are primes that call me in and say, I was the lowest responsible bidder. I didn't get my $2 billion project. Go in there and figure it out for me. And then I have the small business that says, why can't I get a job, you know, for at least $100; right?

So one of the things that we did was try to get everything, exactly what you've said. And as a small business I could totally relate because one of the things was that the small firms were not getting that information; right? There's a lot of information out there, but it's very overwhelming. Whether you have a degree, you don't have a degree, you speak the language, whatever, that really is not the issue.

And so what we found is we took 20 firms, we did the -- I was lucky enough that I was called in by the USDOT and CalAsian Chamber, and we took 20 firms and we said let's accelerate your growth and let's see what that is, with the purpose of finding what is the problem; right? So it was very diverse. And we did bring in -- we were very lucky that Department of Energy was very instrumental to bringing information. DGS also was participating. It was great to see everybody coming together, but we really broke it down. When it came down to it, I agree with you, don't reinvent it because you have the issues in front of you, and don't make it as complicated.

The first thing was that no one understood was that there's different certifications, and there was a big confusion. They waited a whole year to get certified with Caltrans, but that has nothing to do if you're not certified with eProcure and DGS. And people were like, what is that? Nobody knew, you know? And so that was huge. And so thank you for Department of

Energy and DGS, who brought that forward.

The second thing was if I have an issue, what do I do? Everyone spends a lot of money in their state departments for advocates, but the advocate is not willing, really, because we did a couple of tests, really to help guide you and mentor you to get to that solution. What do you have? Do you have a problem? Well, where's your sheet? What's your number? What's this? They don't even speak the same language. So right there, there's a breakdown in communication. You think you're having communication but there's not, and then you don't hear from that advocate. So that is like number two.

So what we did is with the 20 firms, we brought in a small bank, a big bank. We brought a bonding company. We brought in someone who could teach technology. Technology was the second biggest fear, besides not knowing what eProcure was; right? So a lot of these firms are actually afraid to turn on the button, you know? It will help you.

And so we actually taught them Excel and Word, and how do you do an email, and what is proper grammar. I mean, we took it really, really basic. And I know it sounds very easy. But really, out of these 20 firms, we had 18 get contracted and bonded, and get a line of credit. One of them didn't even know that he had over an 800 credit score because he didn't understand how that ties in with a bond.

A lot of them don't know that NOW Account exists, which is a federal program that will accelerate your payment. They will vet whoever you want your contract with so that you get paid right away and you don't have to wait three months, because you don't have three months to wait. So all these little things that we created, these cheat seats to accelerate their growth.

When you're out there -- I just spoke to Nina from Corrections and Rehabilitation this morning. If you create a cheat sheet and you give it to all these people you're having in the different communities and you say, this is a cheat sheet for this and this is a cheat sheet for this, you can be on your way, study it, do it. I think you're on your path because it kind of combines all the resources.

All of you are spending different monies. When we can come together, when we brought everybody together, it was like ah-ha moment for everybody. Oh, by god, DGS. Oh, Department of Energy. Oh, this is how it works. Okay, I get it. But when everybody is spending their own thing and different language is used, it also kind of throws them off. But I think as a small business, if we can come together and make it a little bit more simple, I think that would be easier.

And I do want to say that we did check and see how the state is doing in procuring small business, and they didn't pass their report card. It was under five percent overall. And so that was -- that's not a mystery to anyone. So there's obviously something lacking; right? There's something a little bit lost in translation.

And then for those that were brave enough to really get to those next steps and everything, one of the things that they are told, well, go to the whistleblower line. They'll help you, go to the whistleblower line. You have an issue, go the whistleblower line. What does that mean? You're not a whistleblower. You just want to resolve and want to learn; right? So I think that's really important to really guide them. You know, you're not going to send a kindergartner to third grade to get an answer; right? And you have to start there. And they already have the stigmas and the barriers that you said.

One gentleman, Charles, a construction company, people looked at him, small banks said, nope, nope, nope. So then we took him in, African-American, 20 years doing concrete, wanted to get started. To make a long story short, I said, "Let's go over here to a larger bank. Let's go over here to this bonding." Had an 805 credit score. Got bonded for $1 million. He's doing very well. But we had to take the time to explain it and break it down for them. And that's what we have to do. You're going to spend more money doing it fast than if you do it right the first time.

So thank you for your time.

MR. ECKERLE: Well, thank you very much, all the panelists. There's a lot of -- a wealth of information and knowledge up here. So I think we maybe could just go straight up to there. I'm sure there's plenty of questions.

CHAIR WEISENMILLER: Yeah. I had a couple questions. I'll start off with Stephanie on the PUC side.

I was trying to understand, do you have -- you know, as you said, on the contracting there are pretty good numbers in diversity. Do you have a sense of how that translates into disadvantaged communities?

MS. GREEN: That's an interesting question. Yes and no. We do know by ethnicity, and we know by category. And we know, generally speaking, for example, we know the percentage that are minority firms, and we know the percentage that are woman-owned firms, or a combination, and which are DVB. And then, basically, we know that two-thirds of, excuse me, of small firms are diverse -- I mean, two-thirds of diverse firms are small. So from there you can extrapolate from the number of diverse firms how many of them might be small. And then we do have some data by contract size, what were the size of contacts they got, so we do have some of that data.

CHAIR WEISENMILLER: Yeah. Well --

MS. GREEN: We could pull actual zip code data, too, for the vendors in our database to know regionally where our vendors lie. And then we'd have to do a cross check with where there utilities report getting contracts, so it is possible. But it's a couple layers of database pulling.

CHAIR WEISENMILLER: Yeah. I'm just trying to figure -- I mean, Edison, today, said that 47 percent of the DACs are in their service territory. So one would hope that say 47 percent or more of their contracting are located in DACs --

MS. GREEN: Yes.

CHAIR WEISENMILLER: -- right?

MS. GREEN: It is in their service territory.

CHAIR WEISENMILLER: Yeah.

MS. GREEN: That is a true -- that is an accurate assessment. And their percentage of spend would diverse from, I think it was 41 percent this year.

CHAIR WEISENMILLER: Forty-one percent?

MS. GREEN: Yeah. It was pretty good.

CHAIR WEISENMILLER: Yeah. I was just trying to dial in on, you know, sort of the specific disadvantaged -- are the disadvantaged communities in Edison benefitting at least their share of the contracting and diversity contracts?

MS. GREEN: Yes.

CHAIR WEISENMILLER: The other question is --

MS. GREEN: That is a study we're actually doing, too, and that's something that will be a topic at our en banc, which is going to October 5th. And we're really asking the utilities and really trying to peel back. Because the purpose of the GO was really about economic --

CHAIR WEISENMILLER: Right.

MS. GREEN: -- empowerment and creating economic opportunity. So we really want to take it back to what is it really doing in our local economies? So that will be the focus of our en banc. And we are asking some of the utilities to look at the data that way and really take a look at where their contracts are and how that's contributing to their communities.

CHAIR WEISENMILLER: I'm presuming that the IOUs are covered by these regulations, but note the LSEs, is that --

MS. GREEN: Right.

CHAIR WEISENMILLER: Yeah. And as the nature of the industry changes and you have more shifts to CCA, say --

MS. GREEN: Another topic at the en banc.

CHAIR WEISENMILLER: Another topic at the en banc. Good.

MS. GREEN: We're going to have a panel just to address --

COMMISSIONER GUZMAN ACEVES: Excuse me. The other --

MS. GREEN: -- that very topic.

COMMISSIONER GUZMAN ACEVES: -- other providers --

CHAIR WEISENMILLER: Yeah.

COMMISSIONER GUZMAN ACEVES: -- energy providers?

CHAIR WEISENMILLER: Yeah. I mean, that's sort of another part. I mean, as you were talking about where to find the jobs, I guess once you've heard the number there's, you know, like $9 billion and 40 percent, it's like, you know, go where the money is, you know, at least start there. You know, certainly there's a lot of other programs you could look at, but this seems to be one at the top of the list.

The other question, I was going to look at Tyson and Stephanie on this. When we were pulling this together we had this unusual combination of Greenlining and Silicon Valley Leadership coming in with proposals to us. Yeah. And, actually, it was (indiscernible), GO-Biz was.

So I just wanted to follow up. Where has that gotten to?

MS. CHEN: Yeah. That's an interesting question. As Tyson and I are both looking at each other, I think you have your answer.

But, you know, I think this last thread of conversation touches on a point that I raised at last year's en banc which is that General Order 156 doesn't actually tap into, it doesn't give any insight into the supply chain behind PPAs, behind Power Purchase Agreements. And the vast majority, all of the utility-scale renewable procurement is coming through PPAs. But

GO 156 really just looks at the point of purchase for the energy. It doesn't look at all back into who owns that project, who built that project, where did they by their screws and paperclips from, who did their legal work.

And so I think we're really missing an opportunity by not creating some kind of reporting and transparency mechanism that can operate parallel to GO 156, because it's not looking at the same thing, but that can operate parallel to GO 156 and give us some transparency into the solar industry, the wind industry, the microgrid folks, the storage folks, the EVs, things along those lines.

CHAIR WEISENMILLER: Well, certainly the Commission is considering, I'm going to say billion-dollar programs on the charging infrastructure side of business. I have no idea what setup there to get that sort of information on -- you know, again, it's a huge new opportunity.

COMMISSIONER GUZMAN ACEVES: Yeah. These are all questions we are currently asking ourselves. And some of them are teed up for the en banc.

I do think it is an interesting time in California where the issue of diversity procurement is evolving. As a state that is now the majority people of color, we're going a little deeper into where the investments are.

I think it's an interesting question to look at Edison as the example where 47 percent of their service area is disadvantaged community. Where is the investment? I mean, if you talk about generation, that's around half of the revenue expenditure for most IOUs. That's not usually happening in that 47 percent, just because of the urban, you know, space that they're in.

So one thing you all mentioned was one of the limitations on the geographic distance. And, you know, if you're having 47 percent in one geographic, general geographic area of a service area and half of the expenditures are largely in rural areas where generation could be developed, some urban areas, as well, that's one question. The other question is all the other contracting that can happen.

And I guess I'm assuming that by the question of your geographic distance that you're assuming that if, in fact, you invest in the 47 percent, which is -- well, not just that 47 percent, but if you invest in disadvantaged communities, that will have a natural correlation with investing in the small businesses and workforce areas that we want to develop. I think that's harder on the generation side for contracting. But it would certainly be interesting to explore, what are some of those high --outside of distributed generation, obviously, but what are those other areas of investment, outside of generation, that can be kind of optimized to invest in disadvantaged communities where the geographical distance will no longer be a barrier?

MS. TELLECHEA: As far as the -- as far as the regional and all that, and the 50 miles, that makes sense. Because in speaking to the small businesses, when you look at a PLA or a you look at what the parameters are of whatever they're applying for and they're interpreting what regional means, so that will limit it. The regional could be, for example, here, a lot of times we'll say the seven counties. They don't -- it doesn't translate to them, so then they kind of limit themselves. So I said, well, why didn't you go to Roseville? Oh, that's out of my area. Actually, it's not for this project.

So I think it goes back to educating the communities, you know, whether -- because, for example, I'm leaving to Calexico, wonderful, 125 degrees. But, you know, that's one of the challenges there, is saying you can go past this little imaginary line. And we see it here in Sacramento, too, where some of the South Sacramento or some of the Winters contractors will not apply because they think it's out of their geographical area, but I think that needs to be better explained, you know, what does that mean?

MS. CHEN: I think, too, that it depends on what kind of investments we're talking about. Like for DG, that could be hard, especially if we're talking about big-scale, it's going to require a certain kind of business, or something that's really specialized or technical or whatever.

But then I think about energy efficiency; right? And every building that isn't brand new is a job opportunity and a contracting opportunity. And those are going to be the ones that are manageable for a small business that doesn't have it in their business model to go further than 50 miles. But within most of these -- if you look 50 miles from a lot of these contractors, there's a lot of great job opportunities there.

And I think the lesson that we need to take from the post-ARRA investments is if you want the businesses to get contracts and you want the workforce to get jobs, you have to empower the customers to make those purchases and make those investments.

Which goes back to the thinking about all of the investments at the same time approach.

COMMISSIONER MCALLISTER: I wanted to, if we're -- anybody else? Okay. So I wanted to actually sort of build on that somewhat, but ask a question.

You mentioned, Angelica, a program that allows the contractor or the small contractor not to have to sit around for three months and get paid. And, I guess, could you expand on that? Because those are the kinds of practical, pragmatic things that, you know, allow -- you know, they need to get the job, you know, as you're talking about Stephanie. They need to understand the opportunity. They need to do quality work. But they also need cash flow. I mean, that's what keeping a business in business is all about.

So could you describe that more?

MS. TELLECHEA: Sure. It's called NOW Account. And what NOW Account does is it allows the small business to -- first of all, it's a simple one page, you know, information about yourself and, you know, it's not cumbersome or anything like that.

And then what happens is you'll say, for example, I just got -- not me, but let's say as a small business, you just got a contract with Turner; right? And you're going to do concrete, and it's $25,000 or $100,000. So then what they do is they'll say, oh, you know what, this guy, he doesn't pay. Do you really want to do business? Because we're not -- so they vet, first of all, they vet who you want to do business with, which is huge; right? Because they just want the work.

Secondly, once they vet that person, the person that you're doing business with dose not know that you're with NOW Account because they're still going to write the checks to Angelica at this P.O. box; right? But that P.O. box actually belongs to a NOW Account. If Turner never pays, they don't come after you, they go after Turner. But you've gotten your money in five to -- I think it's five to seven days, so you don't have to wait three months.

So what we're doing is educating the small businesses that this is an avenue for you, because we understand you're a small business, right, and you need to pay your people. That way it can avoid a lot of stop payments that we see a lot of times, or if a contractor's not paying their subs, that avoids that.

COMMISSIONER MCALLISTER: If you could provide a little more information about that, like who -- you know, where those resources are coming from, how that program is run? I don't know, like --

MS. TELLECHEA: It's a federal program.

COMMISSIONER MCALLISTER: Oh, okay.

MS. TELLECHEA: Yeah.

COMMISSIONER MCALLISTER: Okay. Yeah.

MS. TELLECHEA: It's a federal program. And, actually, it's underutilized. I think last year they obviously allot a certain whatever for staffing or whatever. You do pay a small fee to have that, but it's nowhere near what you would pay if you're living off your credit card or anything like that, and it's supposed to alleviate that. It varies, I believe, from zero to three percent, based on the amount.

COMMISSIONER MCALLISTER: So that sounds like kind of almost like an insurance product.

CHAIR WEISENMILLER: Is it Small Business Administration or Department of --

MS. TELLECHEA: No.

CHAIR WEISENMILLER: What -- where in the federal government?

MS. TELLECHEA: I can provide you with the link, they have an office in Texas and an office in D.C, but it's called NOW Account.

CHAIR WEISENMILLER: Yeah. That would be good if you could submit that in the docket.

MS. TELLECHEA: Uh-huh.

COMMISSIONER MCALLISTER: Yeah. That would be great.

And then I would just also say, hey, if we found out more about this and it looks like it's something we might even be able to put in place in California, you know, a type of insurance product or, you know, clearly, it's a financing tool, maybe we can think about that as a solution within the barriers context --

MS. TELLECHEA: Yeah.

COMMISSIONER MCALLISTER: -- locally.

MS. TELLECHEA: We have talked to some of the primes to include it when they're -- when we're doing the outreach with smaller businesses to encourage them to sign up. And we get people to come out to sign them up, so it's worked really well.

COMMISSIONER SCOTT: I had a few thoughts on this. I wanted to address a point that Simeon made, I believe, in his comments about following up with folks who do not have successful applications. And we do do that here at the Energy Commission. We will walk you through in great detail, answer any questions that you want to know, walk through a successful scoring, one that's scored and won the proposal, and do kind of the compare and contrast so that folks really do have an opportunity to learn and grow. So that is something that we are working on here.

I had a couple of thoughts, just based on things that all, excuse me, that all six of you had mentioned.

One is making sure that people know about the opportunities.

And one of the things I was thinking about is through our EPIC Program we have kind of -- we call it the -- I think we call it the matchmaking. I'm not quite sure what it's called, but it's a LinkedIn account where people have the opportunity to, hey, you know, I'm really interested in X topic, and then you can go through and see who all the other folks who are interested in X topic are and start to make connections that way. If you all haven't had a chance to look at that, I'd love if you could do that and see whether there's a way that we could take that and make these connections between some of the smaller businesses and the opportunities that are out there for smaller businesses and large businesses that they might be able to contract with. Because it's a pretty neat concept, I think, that the EPIC team has put together. And that might be a creative way to try to start bridging that gap there.

We heard some, I think, about working through CBOs in an earlier panel about working through faith-based organizations. And so if there are appropriate contacts that we could -- you know, we'd have to think about this, so they're not getting, you know, 100 emails from a listserv every day, but to make sure that some of these opportunities get out into a broader way.

Because one of the things about the Energy Commission list, and I would imagine other state agency lists, is it's self-selecting. And Simeon mentioned it, you have to know that it's there. And then you have to know that you want to sign up. And a lot of people don't know that. And so we've been trying to work with legislators and others to really help kind of spread the word on different components that folks are interested in, and here's a place to sign up and find more information.

And so to the extent that you can help us spread the word in that way, we would be happy to put information together in a way to get it to you, or if you know someone who would be great at this, you know, to try to make those connections, because it is a little bit of a self-selecting listserv that we have, and we recognize that, but it's tricky to fix. It's not as easy to fix as you might think. And you probably know that, as well, when you're trying to do the outreach and make connections with folks.

And then the last thing that I wanted to raise was you mentioned, Angelica, that you have some cheat sheets that really help folks. I would love to see a couple of examples of those, because that may be something that we can template with different programs at the Commission here, at the PUC, or at the ARB or -- that really just sort of explain, you know, start here, then do this, and then get to that. And that might be a great template for us to take and run with. So if you could share a couple of those, that would be fantastic.

So sorry. There wasn't a question in there, but --

COMMISSIONER GUZMAN ACEVES: Question?

CHAIR WEISENMILLER: Sure.

COMMISSIONER GUZMAN ACEVES: I wonder if any you could talk about some of the dynamics of where organized labor fits into, you know, some contracts where they may be real tension amongst the two priorities of social benefit, and any thoughts you have on how to address those?

MS. TELLECHEA: I deal with large prime and small primes, right, so construction and engineering firms. So when we are going to bid for a project, we are in California. If I was in Wisconsin it might be a little different, but we are in California. And so I make sure to have a very good relationship with the building and construction trades.

So the first thing I'll ask the client, which is usually an agency, county or whatever, I'll use the Echo Water Project here that we're doing in Elk Grove, right, for all seven counties. And the first thing I asked was -- I asked the Commission on Sanitation is: Are you PLA-friendly? It's really important to also be mindful of the client and what their experience is and what their goal is. And so the first question is: Why? You know, and it could be a benefit, and I believe that it is a benefit.

That being said, I make sure that it's important that the small business that is not part of the trades understand how the trades work, and how they can also benefit. So I think it's very important, as projects are bid, that the goals are set so that, for example, in the Echo Water -- I'm with Dragados USA, who won the bid -- and so we set a pretty high goal of 30 percent for small business, outside of the PLA. And the PLA, obviously, agreed.

So I think from the beginning, when you work together and you're transparent that way, it works very well. When you're not, I think that's where you kind of have to. But from the beginning you have to set that, what is that going to be? And then if you don't have a PLA, what are you going to offer in the community? You said you're community. What are you going to offer?

Five percent or eight percent that we have seen in the past does not cut it. But when you're doing 20, 30 percent, you are affecting your community.

MS. GREEN: On our end, I occasionally hear complaints that the utility is requiring union shops (indiscernible) to some small businesses because perhaps they're not a union job, and it's seen as a cost issue for them.

CHAIR WEISENMILLER: Yeah. I was just going to say, certainly, we see comments from the Don Vial Institute in the Barriers Report, and they really emphasize the need to get good jobs, or high-quality, you know, is a very, you know, pro-union push. And that's certainly on our record.

But go ahead.

MS. LITTLE: A couple points with regards to payments.

So in state contracting you'd always, especially in the construction area, you can do a withhold when you're dealing with a prime contractor, that until they -- and have them report how they're paying and how timely they are paying on their subcontractors, so that would be one point.

Another one, another area that small businesses have a difficulty with would be with the Department of

Industrial Relations. There's a $400 fee if they're going to do work on public works that they have to pay annually. And depending on the size of the contract, what kicks in is they have to offer an apprenticeship program. There's bonding requirements. There's certified payroll. And a lot of times small businesses aren't equipped to handle those kind of administrative costs.

Let's see if there's something else.

Forecasting report. So I'm not sure how far down the line you are looking at when you want to prepare or perform these types of stations. So what's the cost on the contract going to be? Is it going to be small enough for a small business to take on that contract? And if not, are there going to be any meet and greets?

So we always tell certification -- our certified firms that the more certifications you have, the better, because that's their calling card. So if they're certified with DGS, DGS is supposed to be the statewide certification, and it is written that way in statute. However, every city, county and local entity will have their own certification. Some may use the state certification and request additional requirements. So we say, number one, make sure they are aware of that.

If you have information in a pamphlet, I have a webpage at DGS for business development that I could add a link to that information, and I could promote that when I send out my blasts to various businesses, and when we also do outreach events.

MR. ECKERLE: So I want to be mindful of time. And so, Chair, I look to you.

CHAIR WEISENMILLER: At this stage, I think we're going to take a short break, until 2:30. We've run a little bit over, but we started a little bit late. So unless someone has one point --

MR. CAMACHO: One super quick question.

CHAIR WEISENMILLER: Sure. Quick questions are good.

MR. CAMACHO: So, so far, obviously, we want to increase the number of small businesses that get contracts. But also for some of the contracts that are quite large that may be inaccessible to those, you know, small businesses because of the amount of work that it just requires to prepare the application, the analysis, there's a huge opportunity for subcontracting.

So do you know of any program or have you, yourselves, done any work with some of those large, you know, companies that get the contracts, to actually also educate them on, you know, how to diversify their subcontracting?

MS. GREEN: On the utility side, absolutely. We have -- in fact it's in our GO that they have to do subcontracting. So many of the firms have subcontracting clauses, some mandatory, some voluntary. But subcontracting clauses are requiring their primes to utilize diverse vendors. And often times they put in the same target that they themselves -- so if they have an internal target of 30 percent, they'll put that into the subcontracting clause.

So on the utility side, it's very, very active.

MS. LITTLE: With regards to the State of California, when we're talking about small businesses and DVBs, it's mandated in law that there's a three percent goal for DVB contracts. It's an executive order for small business, and that goal is 25 percent.

When I look at construction for the last nine years, the state has not achieved 25 percent in that industry. It's about 23 percent. So my focus was looking at why we're not achieving those goals?

And so if they can partner with other businesses and get certified at the state level as a partner or a joint venture, then they can also compete on a larger contract. But a lot of times you have businesses that are, you know, kind of, you know, have an adversity of trying it. They don't know you that well. It's like a marriage; right? I want to contract with you. You've got something I don't have, and maybe it will be a good match for us to bid on a larger contract.

MR. GANT: I do spend a lot of time consulting small businesses and explaining to them, go for the subcontract. The first thing they want to do is go for a larger contract, and they're not ready. And I do spend a lot of time, you know, explaining to them, go for the subcontract and learn, just as you mentioned.

And, you know, for many, many years, especially since 2009, the state has said, oh, okay, you have to have a certain percent, if you're a contractor, to go look for small minority- or women-owned businesses. But, you know, it's been like a situation where, yeah, you're supposed to do that, and those contractors really aren't doing that, and so then they still -- there's no repercussion for not actually looking for small or minority- or women-owned businesses. And this has been happening for a very long time, swept under the rug, and it continues.

So, you know, it would be great if, in fact, the state, you know, kind of pushed that issue. But we are having some issues with that really not happening.

COMMISSIONER MCALLISTER: Can I add? I just want to -- I know we're getting towards time here, but this is a really important issue, so thanks for bringing that up. And, I mean, having some of us, at least, on the dais have been, actually have run businesses and nonprofits where we've bid on these big projects and we've gone out and looked for subs, and we've actually, you know, gone through this whole process, and I certainly have. And I found it quite a difficult and daunting process, certainly if you're pushing the envelope on the time constraint and you've got to get your project, you know, proposal and get it in, you know, and you've sort of left it to the last minute to kind of navigate some of this stuff, you know?

But even when you get on it early on in the proposal development, finding a subcontractor that you're confident can make you competitive and help you win the proposal, and, you know, and comply with, you know, the diversity requirements of the bid is incredibly difficult. And, you know, I think ideally we would have, you know, some ongoing matchmaking where we would really have the skill sets vetted and we would have, you know, okay, look, I have a printing or an education or outreach or some kind of need in this bid where I can -- you know, and here's my group that I can be confident they're going to deliver. And, you know, it's like going in with blinders on, you know? And you're just -- you don't know what to make of the information. It's like sort of dating on the internet: you're not even sure if there's a real person over there; right?

So I guess -- so I would love some comments on that, because that system seems like it could really use some hands-on TLC.

MS. GREEN: It's funny you mentioned matchmaking. We, the CPUC, we conduct and hold two large expos every year. And a major component of those events is matchmaking. We have not only as many state agencies as we can drag, DGS is always there, Caltrans is always there, a number of other state, as well as local county entities all there for the matchmaking, as well as all of our utilities, and we have matchmaking. And we also have an exhibit area. And then we have workshops. And so we have two main events.

Also, I know many of our utilities have meet-the-prime events. They have their own matchmaking events. The cable industry puts on one. The water industry has their own. So there's definitely venues out there.

And then I know DGS, well, DGS also participates in a few others. They have Calcon that they put on, but

-- so there's some good ones out there.

MS. LITTLE: Every February, I host a Winter Business Showcase for small businesses that are in California, for them to come and actually meet state buyers, and they do matchmaking there. They get state's presentations. They get workshops on how to do a proposal for different agencies. So it's a lot of education that we do need to do.

And back to your point about being a large prime trying to find a small business. And what I try to tell small businesses, and I'm sure some of the panelists do, as well, is that even if you get an email and you can't do that job, respond. You're going to make a connection and you're going to build a relationship. So that's part of it, the relationship building. There's only so much we can do in this room to help them. They've got to actually do some of the work themselves, and that's a problem. Some of them are so small, they're strapped, that they can't -- they don't have the time or the capacity to do some of the things we want them to do, read email, go to matchmaking events, participate in LinkedIn. Businesses that are doing that are already pretty much successful.

So if we're looking at trying to help others pull themselves by their bootstraps, it's got to be at ground zero, like you said, starting with how to do the email, setting up time and helping them with time management, right, and getting things done.

But like I say, a lot of the prime contractors have difficulty. So if were -- if we have speaking engagements with the Associated General Contractors of California, ABC, those kind of individuals, because they have large and small, that would be another way of getting the word out with what we're doing.

MS. TELLECHEA: What I was going to say is for the small businesses to go and spend the time, it's really difficult. And when they go to matchmaking, they think that they're getting paired up for a job. They take it as a job interview. I wish it had a different name. We understand what matchmaking is. But when we took these 20 firms plus 20 more and we did matchmaking for them, they really all thought they were going to come out with two or three offers. And then we explained to them, there's a process to it. So that's why we -- that's how the cheat sheets came to be, because they were not getting it.

The other thing is a perfect example is the arena. The person that did the compliance, I actually invited her, Victoria from DCM, it was a great opportunity to make sure that we did address the issues of the underserved communities. And what happened with the ones that did not qualify, you know, I love the fact that you're ambitious and you want to have that contract and you're not ready, we were able to work with the unions, and actually through Victoria. And the unions that -- they brought them in under the apprenticeship program. And we started off with 18 and ended up with 80.

So that was a pilot in itself that we tried because we wanted to make sure that we address those, and we didn't miss out on good labor because they might not have had that experience.

MS. RAITT: So this has been a really good conversation, but we do need to move on to our next panel.

MR. ECKERLE: Thank you all.

MS. RAITT: So I'd like to invite our panelists to go head up to the tables because --

(Background conversation.)

MS. RAITT: So I think we're going to go ahead and just move on to the next panel. We don't really have time for a break.

(Background conversation.)

MS. RAITT: Hello. Can we go ahead and get our next panel at the tables. Really appreciate your help.

I know it’s a long afternoon.

(Background conversation.)

MS. RAITT: All right. So our -- thanks everybody. We’re going to go ahead and get going again.

For our next panel is the Adoption of Advanced Technologies in Disadvantaged Communities. And Eric Stokes from the Energy Commission is our moderator.

MR. STOKES: Okay. So good afternoon, Commissioners. My name is Eric Stokes with the Energy Research and Development Division, and I’ll be the moderator for this afternoon’s panel session titled Adoption of Advanced Energy Technicians in Disadvantaged Communities.

Joining me today, we have four presenters who will be sharing some of their preliminary findings and insights from their EPIC-funded projects that are really trying to bring clean energy technologies and their benefits to disadvantaged communities. Joining me in the room today, we have Ed Lopez from Groundwork San Diego-Chollas Creek, Ismael Herrera from BlueTechValley Innovation Cluster, also known as the Central Valley Regional Energy Innovation Cluster, and John Harding from Charge Bliss. We also have online, Catalina -- I probably - Lamadrid from Inova, and she’s calling in from Chicago.

Before I turn it over to their presentations, I'll provide just a quick bit of background on the R&D Division's efforts to date.

If I could -- yeah. Could you go to the -- maybe skip ahead two slides? There you go

So our efforts in the R&D Division actually date back a few years when Chair Weisenmiller, in about 2013, submitted a formal letter of commitment to the CPUC President at the time, Commissioner Picker. In the letter the Chair identified some actions we would take in our administration of the EPIC Program to increase diversity and equity within the EPIC Program.

Since then there's been some additional policy guidance and direction, the most notable of which was the SB 350 Barrier Study. And one of the recommendations specific to the EPIC Program that we target 25 percent of the Technology Demonstration Deployment Funds to projects located in a disadvantaged community.

Next slide.

In pursuing these objectives, we developed a three-prong strategy. A big focus of our earlier strategy has been really ramping up our outreach efforts so that a broader and more diverse group of -- set of stakeholders are aware of the funding opportunities available through the EPIC Program and our other R&D programs.

On the solicitation side, we have also implemented a couple of approaches to motivate technology developers to seek out project sites located in a disadvantaged community, either by providing preference points or by providing set-asides and solicitations.

The third part of this strategy is identifying key paying points in low-income market segments and scoping out possible technology solutions to address those needs.

Sorry. Next slide.

As far as our outreach efforts go, we've taken a number of steps to really scale up our outreach efforts. And I won't list everything we've done, but I wanted to highlight a couple of those efforts.

One of those is to reach out to a broader set of organizations to really create a network that can help us get the word out when we have workshops, or at least new funding opportunities. We've also developed materials, when we attend forums and events, to be able to hand out that people can take with them to identify where they can go to get funding opportunities. And one of the changes with these funding opportunity cards is we now offer them in additional languages, besides English.

We've also had workshops throughout the state to explain the application process so it's not so intimidating for first-time applicants applying to some of these funding opportunities.

Also during our -- also during the development of our last EPIC Investment Plan, we held two scoping workshops to get input on how we can ensure funded projects through EPIC are both technically strong, as well as the values they're providing are aligned with really the needs and the vision of the community.

Next slide.

For our second strategy, to date we've issued 11 solicitations where we've included preference points if the project site is located in a disadvantaged community. We've also had two solicitations where we've done a set-aside or reserved funding for projects located in a disadvantaged community. And the primary different between these two choices were preference points projects in a disadvantaged community tend to have to compete with other projects not in a disadvantaged community, but when we do the set-aside the projects are competing in disadvantaged communities are competing against other projects in a disadvantaged community. So it gives a little more insurance that some off the funding goes to disadvantaged communities with the second option.

In addition, we have a solicitation, it's our new small grant program called CalSEED, where we set a target to try to encourage entrepreneurs and representative groups from -- to apply for the small grant program.

Okay. Next slide.

The third strategy, like I mentioned, is really being able to scope out solicitations around key market segments for low-income customers. An example of this is after-market treatments and coatings that can be applied onto existing buildings. There's already a number of products out there. But some of the recent advancements in material science have the potential to really increase the performance of these types of technologies. This isn't a strategy we've employed a lot, but it's something we're looking to do more going forward into the third Investment Plan.

As far as our progress to date, we've encumbered roughly $173 million of the Technology Demonstration and Deployment Funds. This is the full allocation from the 2012-14 Investment Plan, and about half of our '15-17 Investment Plan. Of that amount a little over $53 million has gone towards projects located in disadvantaged communities. So our running percentage is right around 31 percent right now, giving a couple percentage points off.

In addition, we've had two solicitations in the market facilitation program area where we've included set-asides for projects located in disadvantaged communities. One of these solicitations was called the EPIC Challenge where multi-disciplinary project teams applied to kind of with kind of their concept and design for what an advanced energy community will be. And of those projects, seven of those were located in a disadvantaged community. And two of our speakers are representing those projects today.   I'll run t

We tend to classify our projects benefitting disadvantaged communities into four categories. Each of the four speakers today kind of -- their projects represent one of these four categories.

The first category are projects where the technology advancement is helping to improve critical services needed by the disadvantaged community. A lot of times these tend to be municipal services, such as fire stations, as well as healthcare facilities, such as a hospital.

Next slide.

The second category are projects that are really improving the living and housing environment for residents, helping by both lowering their energy costs, at the same time making sure that we're also improving their health and comfort. Most of these projects tend to be retrofits of multifamily housing using advanced technology packages. Okay.

The third category of projects are benefitting local businesses and the economy in disadvantaged community. A lot of these projects in the past have tended to be demonstrations of new technology with the target customer to prove out the value proposition. One area where we've really focused under the EPIC Program is technologies for the food and ag sector, primarily in the Central Valley, and looking at technologies that can really help reduce their operational costs, especially in light of the drought the last couple years. Okay.

And the fourth category, our projects are developing new analytical tools and methods that can better inform policy and program decisions, so that we're realizing the beneficial impact of these different programs to disadvantaged communities.

And then last thing, I'll put in a plug. We currently have our online database called Energy Innovation Showcase. It features all of our EPIC projects. And we're also ramping up our natural gas projects on the database. One of the search criterias is disadvantaged communities. So users can go and find all our projects located in disadvantaged communities and learn more about the project descriptions.

And with that, I'll turn it over to our first speaker, Catalina Lamadrid. So her project was a result of a solicitation we had a couple years ago called Analysis of Social, Cultural and Behavioral Aspects of Achieving Energy Efficiency Potential.

MS. RAITT: Go ahead, Catalina.

MS. LAMADRID: Sorry. Can you hear me okay?

MS. RAITT: Yes. Thank you.

MS. LAMADRID: Perfect. Good. Thank you. So good afternoon everyone.

Thank you, Eric, and the workshop organizers for the invitation. And I do apologize, but I cannot be there in person. But hopefully I will be able to, you know, participate in the discussion and do a good job of sharing the highlights of our project.

As you'll see from the title on the screen, our area of study was primarily Hispanic communities. And we were looking at residential entities and conservation. I'll talk a little bit about what the study entailed, but it wasn't a graphic approach, so much more qualitative in nature instead of, you know, big-data type of projects.

And I do want to point out, so this is probably now two years that we've been working on this project, we're very near to being done. I'm hoping to publish a final report in the next couple of months. So what you'll see today are preliminary findings and recommendations. And I do also want to point out that this was a joint effort between my company, as well as Sustainable Design and Behavior and (indiscernible) Research.

Could we go to the next slide?

I wanted to start by providing a little bit of project background as to how this project came to be, really. And it was a combination, I would say, of some studies that have been made previously that have found while we know that certain characteristics, such as lifestyle of income or, you know, weather, the housing envelope and equipment, all of these things impact how a family uses energy in their household. But there have been some studies that have also found that there is another variable that is not incorporated which is culture and how this culture and ethnicity influence the way that energy is used.

So while being specific to California, 28 percent of the population is of Hispanic origin. It is a very large group. And from the experience of our own research team members, as well as anecdotes from the industry and colleagues, we know that in California and everywhere else in the country, program administrators are really struggling to engage this community. And there's also been historically very low participation, probably there's a disconnect there and an opportunity.

So we designed the project then in an effort to advance our understanding of how is it that Hispanics act in terms of energy? What do they feel, what do they believe about energy? What are the practices that are common among the community that can help us understand them better, and then target our programs and our initiatives better to them?

As we go to the next slide, the way that the study was conducted, this specific study, is a combination of different research records. It was designed in a way that each research method would kind of dig deeper than the previous one and they would build upon each other so that towards the end of the project, we were trying to get more at the why and trying to understand the stories, the emotions, the interactions that study participants could either share with us or that we could perceive and extract, you know, from all of these methods.

So I'll make a couple of kind of disclaimers. This was not a comparative study, so we did not compare, you know, Hispanic or (indiscernible) or Hispanic community against a group of non-Hispanics or any other ethnicity. And like I said, it was very much an endographic type of research project, very much qualitative in nature.

One other thing I will say is we did focus on three different regions within California for this study. So a lot of the work was done in the San Diego County area. We had another portion of the study done in the Central Valley, and then closer to the Bay Area.

On the next slide, I want to share with you some of the high-level findings, preliminary findings, as I said, that have come out of this study.

So one of the hypotheses that we had at the beginning of the project and that we wanted to test out was that Hispanics, as a group, have some common energy practices and behaviors. And that did seem to be the case, you know, by applying our research method. It was one of the conclusions that we derived. There are a number of common practices in Hispanic households. And there are also some very strong ideas about energy use. I will not go through all of them. I can address them later in questions, or when the study is published. But there are some very discrete things that seem common across the board between all our study participants, or most of our study participants, and also brought up by experts that we interviewed, and other organizations.

Another thing that we found is there is a very significant level of thought and attentiveness to conservation/waste avoidance. This is a community that is very much in tune, for a variety of reasons, with using less and conserving resources. And as I said, for a variety of reasons that do include saving money, but also a desire to protect the environment, and also benefit the community.

One of the things that we hear about in Hispanics and that we do believe is one of the things that influence their energy use is that they're a very tightknit group. You know, they have extended families and big families that are living in households. And they do value the sense of community and neighborhood a lot. So those kinds of things influence the reason why they do certain things or don't do certain things.

In terms of conservation, a couple of things I think we're very interesting is even though the very aware of conservation, most of it is focused on behavior and not on technology. Just most of our site participants did not think about technology or replacing equipment. Whenever we would talk about it they would bring up different behaviors that they do around their home, and particularly behaviors about not using. So instead of, you know, setting your air conditioning temperature at a relatively high degree, they would just not use air conditioning at all. And that was interesting for the researchers, I guess.

We also found a very strong emphasis for a preference on natural, quote unquote "natural", indoors environment. We (indiscernible) to using certain equipment, like air conditioning, or even heating, if they could avoid it. So most of our participants seem very prone to passive methods of cooling, even if that meant like going outside of the house and, you know, having the kids, you know, play in the rain or whatever, in the water outside in the garden.

We also found that this applied to activities in the kitchen and the household. So, for instance, there was a resistance to using dishwashers. And they would, instead, wash and dry dishes by hand. Sometimes the same would apply to clothing.

And the last thing, the last high-level finding that I'll short of share is even though our participants feel that they understand energy and they have very strong opinions, there did seem to be a lot of confusion and misinformation, particularly about end uses and the impact of their activities on the utility bill. So they, you know, they talked about what they would do to conserve, but there was no connection between, you know, this activity applied to a high-impact measure (phonetic), so there will be a reduction. And often times they wouldn't even see their action (phonetic) at all. So we felt that that's an area of opportunity in terms of education.

And we also uncovered what we're calling energy mix. So in our report we'll publish a list of ideas that Hispanics seem to have about energy, some accurate, some not. But again, if we're interested in helping shape behavior and understanding how to better engage them, we could, you know, do a good job trying to dispel those myths, trying to (indiscernible) the misconceptions that exist.

So on the next slide, you know, this is a very quick presentation, observation, so I'll go through just a couple of them.

The most important are critical recommendations. We're putting forth recommendations for energy conservation or administrative management, permanent administrators, as well as some policy recommendations.

I’ll pick a couple, just to highlight.

But in terms of program design and delivery, I believe this is a finding for the disadvantaged communities, as well, most Hispanics are renters. More opportunities need to exist for, you know, renters, they’re not homeowners, want the family buildings. And then there’s also a lot of Hispanics that qualify as low-income participants. And, of course, there are programs for them, but there’s also a lot that fall above the threshold but still don’t have the resources to participate in mainstream programs, so that they’re sort of left hanging there in that gap.

And then, as I said, we do believe that program designs that approaches entire communities and neighborhoods can be very successful with these communities. So, for instance, there are some models that establish neighborhood challenges, or things like Community Bay Solar. Leveraging that tightness and connection could create a lot of opportunity, right, both for the community, and then for the program administrators and implementers.

In terms of marketing and outreach, we -- you know, I guess the main message would be to collaborate with community-based organizations. Again, I know this is not -- it shouldn’t be something new, I should say.

In fact, the way that we've recruited most of our study participants was through CBOs. They are trusted. They're on the grounds. They know the people.

But then the other recommendation would be often times we limit our marketing and engagement efforts to translating something to Spanish, and that is just not enough. The messaging needs to be customized, and there are clear recommendations in our report as to how to do that. And, also, the strategy needs to be culturally relevant, as well.

And then, as I said, lots of opportunities to address energy mix, do it through in-person workshops, instead of distribution of just flyers and materials, recognizing that those are generally more costly methods, but there are a lot of, as I said, established organizations in the community that we can work with to help deliver these training workshops or education sessions.

And my next and final slide, just again very quickly, though the focus of what we're doing is mostly recommendations on the program administration side, there are some policy and research recommendations. I think primarily, you know, and just going through all the efforts of (indiscernible) and everything that's being done, that we're doing, but we first need to recognize that there’s an opportunity and a lot that we don’t know. We believe that there’s still a need for additional pilot projects and initiatives within these communities.

And then, you know, I come from the perspective of the utility, because that’s where a lot of my experience is. And I understand that you need to speak to the utility in terms that are also convenient to them. And in order to do that, we need to identify what the potential is of engaging Hispanic and obtaining more energy efficiency there.

And the last thing I’ll say, at the top of that list there is the community needs to be engaged from the beginning of everything, so they need to be part of the policy development process, through sharing ideas, through the development of community programs. Innovation workshops are great for leadership from the community invited to participate.

So, obviously, I don’t have time to get into all of the details here, but I just wanted to put those forth. And that is it for me.

My final slide has my contact information. But, obviously, I’ll hang around an answer any questions.

MR. ECKERLE: Great. Thanks, Catalina.

So our next speaker, Ismael Herrera from

BlueTechValley Innovation Cluster. And BlueTechValley manages a network of incubator services throughout the Central Valley and the north state to really help energy entrepreneurs in those areas.

MR. HERRERA: Thank you, Eric.

As he mentioned, my name is Ismael Herrera. I'm here representing the BlueTechValley Region Innovation Cluster. We are housed out of California State University, Fresno, in the San Joaquin Valley. I do want to note that I will not be here tomorrow. That is a typo. It should read August 1st, so I apologize for that.

Next slide please.

We are part of a consortium of four awardees who received a $5 million grant from the EPIC Program last year. There are three others that are part of our consortium. I do want to note that there have been name changes to two of those. The Valley Cleantech Incubator is now known as the Energize California Incubator. And the Cyclotron Rd. is now actually called the Activation Energy Incubator. So those are a bit -- those names are a bit outdated. But we are in constant -- we're in communication with those three other cohort members. And we also have partnerships with Navigant and CalSEED, specifically CalSEED, to try to get some of those startup dollars into our region to supplement the finding that comes from the CEC for some of our startups and innovators.

A little bit more about -- next slide please.

A little bit more about our specific project. We are using a hub and spoke model. As I mentioned already, we're housed out of Fresno State, but we're covering a region of 39 counties in Central California, where the other three incubator projects are not represented. We have a regional approach. And we're leveraging a relationship that our university already had, a network through our CSU Water Resources Policy Initiative. That's how we were able to seamlessly get the buy-in from these other CSU campuses to be able to participate in our CEC project.

And then we do have a Small Business Development Center up in the Sierras that is partnering with us, as well. And there's a number of partners that are listed there, including UC Berkeley, Davis, and several other private and nonprofit organizations, and our office is included. I represent the Office of Community and Economic Development at CSU Fresno.

Next slide please. Oh, it looks like we missed a slide. Can you try the next one? There is a slide missing, but I will go ahead and tell you what the objectives are for the BlueTech Region Innovation Cluster.

So anytime we talk about energy in the San Joaquin Valley, and across the state for that matter, there’s an inevitable nexus between, as was mentioned by Eric in his opening comments, but there’s a connection between water, energy and agriculture in our neck of the woods. And so the innovations and the startups that we’re looking for to commercialize our companies and ventures that are focused on those three areas.

In the case of this project, it can be focused on more than one but definitely has to have a focus on energy. We are trying to find -- attract not only local but regional and statewide, and we even have some global interest for the facilities and assets we have on campus to try to become part of this ecosystem that this funding is helping support in our region.

We’re looking to expand not only the infrastructure of services and testing facilities, but also the infrastructure of capacity, of the knowledge experts that are within our region to help folks with things like SPIR (phonetic) and SETR (phonetic) applications that can leverage state funding from the CEC. We’re constantly looking to expand our ability to provide services to our businesses. That’s just one example.

And then, of course, we have a very high focus on disadvantaged communities. And that's one of the reasons why our office is involved in this project. We do a lot of work in the rural disadvantaged communities of the San Joaquin Valley.

And so, you know, contrary to common knowledge that there isn't much innovation or technology in these small rural communities, we have found examples of where that is not the case. There are diamonds in the rough, if you will, that need to be found and polished. And they can become very viable ventures that are commercialable for application in the ag industry and the local food processing industry, and there are some examples of those.

And we, of course, are looking to benefit California ratepayers. And for us, that can be anybody from a residence, to a municipality, to a farmer, to an irrigation district, to an industrial company, such as a food and beverage processor which is our largest concentration of manufacturers in the Central Valley.

We're really focused on identifying solutions that will also make it feasible and cost effective to be able to scale new innovations and technologies to rural disadvantaged communities. And there's also urban disadvantaged communities, I should note. But because of the geography we cover, most of those tend to fall within the rural setting. And so we're looking for ways to try to take whatever is developed in the university labs, in the facilities that our ecosystem houses, and making sure that there's a way to get those out to some of the more remote, maybe less cost-effective localities within the region.

We're, also, we're definitely interested, I think Eric hit on this on his comments, as well, but we're definitely interested in helping reduce the cost of doing business for our ratepayers, the people that I mentioned earlier. And I think energy efficiencies and renewable energy technologies is one way for us to accomplish that. And they're actively looking for new ways to be able to embed those technologies into their operations. And while we see that a lot in the farming community, we're seeing it more and more in the food and processing industry, as well.

And then there's also an added goal of helping, using these technologies to reduce the carbon footprint for their business operations, whether it be on the farm or in and industrial setting.

This is the TIE process, the Technology Innovation Evaluation process that we operate. This is a triage process that we use when we have an entrepreneur startup approaches for services under this project. It's detailed there, and I won't go into too much information today. But essentially what it does is it creates a filter for us to be able to verify who the promising ventures are, the ones that are little bit more commercialable, that have more ducks in the row and have done things like business plans. And we walk them through the process. Some make it further than others.

For those that need help, a little bit of handholding along the way, we do offer those services. There's commercialization support. There's an incubator that we have on campus, specifically for these types of businesses. There's testing facilities, demonstration facilities for them to calibrate their products and services. And then there's an ecosystem and a network for them to tap into for mentorship for possible venture capital and other types of funding. And so a lot of that is housed at Fresno State, but we also have several of those facilities and pieces of that ecosystem throughout the 39-county region.

Up to date the 92 ventures have gone through this process, and this is in about a 12-month period. Since we've been awarded funding, 92 ventures have gone through the triage process. Thirty of those ventures have made it past the first screening process. Sixteen of those 92 ventures, which is about 17 percent, are located in disadvantaged communities. There has been -- of those 30, we've spent about $1.9 million of capital infusion that has occurred, specifically for four of those. One of them received a $1.5 million CEC grant, so thank you. We have another one that received $150,000 grant from CalSEED. And then we have two other smaller ventures that received a combined $250,000 of private capital, venture capital. So we're at $1.9 million now with those 30 ventures.

The next slide please.

One thing I wanted to note, just to tell you how important your dollars are and the taxpayer dollars are, is that we've been able to leverage these dollars to capture half-a-million dollars' worth of federal investment. And so your investment helped us secure the match funding necessary to receive an EDA i6 Challenge Grant, very competitive grants. Our university has been trying for -- this is the fifth year we've been trying to get these funds, and we finally got them. And I think the fact that we had the CEC funding was a big reason why. And so just know that we are using your dollars and we're turning them into another half-a-million dollars to provide an additional layer of services for the ventures that go through our triage system.

And this Valley Ventures Program that's being funded through the feds, and the website is down below, it's meant to accelerate the superstars that come out of the triage program. And so it's not a service that every single venture that goes through the CEC grant-funded program will experience. It's reserved and meant for the ones that are really high level. And this is a funding that's in place beginning this fall. And it will allow us to really focus our efforts on the high-achieving ventures.

And so the next slide has our outreach materials. We have a deadline right now of August 15th for any ventures that meet the requirements for this additional funding. We are encouraging them to register and apply for the services, because there is limited space for the cohort. And we're hoping that, by being here today, you will know of some potential candidates that you can send our way for both our programs.

And with that, I want to just thank you for the time and the opportunity to present. And I'm happy to answer any questions at the end of this panel. Thank you.

MR. ECKERLE: Great.

So our next speaker is Ed Lopez, and he'll be presenting the Groundwork San Diego-Chollas Creek Advanced Energy Community.

MR. LOPEZ: Thank you very much, Eric.

And thank you, Commissioners, CEC and CPUC, for the invitation and opportunity to join you this afternoon. I'll present, and I'll try to be brief, some of our progress on the EPIC Grant that we're working on and give you some of our thinking and efforts, and also some of the observation and lessons we have learned.

So again, as you look at what we now call Chollas EcoVillage, our goal and hope will be to make it an advanced energy community. That's the neighborhood of Encanto. And just looking at that, you might be able to see some -- the community highlighted with the blocks right there, hemmed in by major freeways sort of to the right of the picture. And in the middle of the screen, that green meandering line represents the Chollas Creek waterway as it works its way through our community and towards the upper end of the photo, down to San Diego Bay.

A little bit about us, as we go to the next slide -- oops, and there we are -- Groundwork San Diego, we've been around for over a decade, invested in environmental justice work, in collaboration and in support and in partnership with all of our community stakeholders. Originally, our work grew out of watershed management of the Chollas Creek. And we've added in activities and programs over the years. The latest one, the Chollas Creek-to-Bay Bikeway, a large project, countywide, we're working to ensure those benefits and improvements go along and benefit our community residents.

We have a partnership with UCSD. And principally in our community, we have an Earth Lab, an outdoor, educational classroom. Annually, we serve and touch more than 2,000 students with educational environmental activities. And that represents over 17,000 student hours on an annual basis.

Lately we've added in some DWR water conservation upgrade work. A And that's also helped to inform our outreach efforts and how we can engage and involve our community residents.

And we're just starting the very early and preliminary work to develop and design the plans for a Chollas Creek Regional Park. That will be of tremendous benefit and a huge win for our community.

Next slide please.

As we look at our DAC, and ultimately the EPIC Grant, it should not surprise, perhaps, you, but we have incredible and great diversity. It's a huge value. Of course, we have specific challenges, a CalEnviroScreen score greater than 80 percent. But if you look at that diversity with Hispanics, that's 61 percent, but we have significant African-American and Asian-Pacifier Islander populations, as well.

Of the residential element, we have predominantly renters in our community, even among the single-family units in the neighborhoods. The AMI, $36,000 approximately. And we have free reduced lunch programs at all of our schools, and the majority of the students found at the local schools are on free and reduced lunch.

Our effort, under the EPIC Grant, and then I'll share with you subsequently in the next few slides, it's a master plan, that older, urban neighborhood of Encanto, into an advanced energy community which we call Chollas EcoVillage. Not only do we want to create a model of how you engage and involve your DAC residents and how they participate, but we also have a focus on actually bringing forth some projects that will generate renewable energy that the residents can access.

We have a number of partners, but two specific and strong ones include our local public school, San Diego Unified. You may be aware that they're considered a leader in the K-12 field when it comes to smart energy, energy efficiency. They have really done a fabulous job on the Prop 39 resources and plans right there.

And also, as well, we're supporting the City of San Diego. Awhile back they did adopt a Climate Action Plan. And just as a brief aside, you may be aware that they, within the last few weeks, a month or so, had issued their CCA Plan, so they're certainly moving down the pathway. We see our ZNE Master Plan as being able to support both of those institutions.

We did begin with and still roll out a community outreach program. In fact, we branded it as Energizing Our Future. Our partners, including CSU Fullerton administered and are continuing to administer a survey, trilingual, English, Spanish, and Tagalog for our community residents. We knew going in there would be specific challenges. We so those every day. We've tried to really fit with the profile and the uses of folks, of how they wish to communicate and when they want to receive the messaging, how they'll take that content and info.

So not only do we use traditional print and broadcast media, but we also utilize Facebook. Add we have a Take the Pledge mini campaign that's both there and over the smart phone where you can text it over a smart phone. All we've done is sort of publicize and promote the text number at the end-user's end. At their time, they can go ahead and text, and then there's a series of short video vignettes that sort of run through a gambit of a number of issues related to climate action, energy efficiency. And w have Climate Action Ambassadors. And I'm actually hoping, if we either click on the link or on the screen shot, we might be able to just do a brief sample, five or ten seconds or so. Oh, no sound.

(Whereupon a video is played and not transcribed.)

MR. LOPEZ: Thank you very much. Thank you.

She's a young student in one of our middle schools, and she's doing a fabulous job, obviously very bright. But she'll work with her families, and the other students with work their families, as well as community members, and really introduce some of the topics, and also work with them on the local utility account management tools, and get them introduced and sort of work through there.

Some of the lessons we've learned, as we look at the next slide, from the outreach effort I think is very consistent with our first presenter. And really, if you think about the big picture, maybe the first and last bullet points, nothing else other than demonstrate, yes, we understand in a DAC, cost saving considerations are huge an significant. But we've come to learn, residents are also motivated and interested in participating, and perhaps transforming their behavior, because they, too, recognize the social, societal benefits, the community benefits, as well. So it goes beyond simply cost savings considerations, but at the same time that's obviously a huge consideration for residents who are challenged financially.

We would support, I think you've heard echoed today, the need for trusted community-based organizations to be involved. That certainly is the case now. And unfortunately, we have observed in our Chollas EcoVillage, among Latinos and others, that sort of given the sort of national climate, there's a reticence and reluctance to engage, to talk, to literally even open doors. They're not quite sure who's coming into their neighborhoods. But when you can utilize fellow residence, other institutions, we've turned to faith-based organizations, and partnering with them to help reach our DAC residents -- we've also utilized sort of a neighborhood block captain model where we'll have on a number of blocks a homeowner who's been there for a number of years. They're engaging in, perhaps, water conservation upgrades or energy efficiency upgrades, or maybe they've also installed a solar PV system, they'll open their house sort of as an open house, or maybe even hold a block party. We've tried that out as well.

The materials must be cultural competent. And again, in these households, there's multi generations. So you have to think about who's the decision maker within the household, but who will also influence that? So we see all of that. And we think if you sort of put that together you can overcome the barriers that have been identified in the SB 350 Report.

Next slide please.

As we turn, then, our attention to how we're looking at generation, we're proposing and continuing to draft in our master plan some possibilities for some community renewable projects sited in our DAC. And here we're thinking it makes sense, and we'd realize to utilize public-private partnerships, including, again, San Diego Unified School District and the City of San Diego, and have a diverse array of technology.

So we are looking at community solar at our Earth Lab site. We're also thinking we can do fuel cell at the same site, as well. And then maybe have some solar PV at some additional school sites within the community.

With the City of San Diego and the closed Chollas Landfill, we have engaged in conversation with them already about a bio-digestive technology ought to generate some energy. We have received a lot of interest. And I think there's opportunities to not only address the renewable energy generation portfolio, but also some unique regulatory standards in the case of the City of San Diego and what they're going to be doing with their food waste -- or addressing their food waste regulations. And then simply with the school district helping us, able to minimize site cost and lower project costs to really demonstrate the viability of our business modeling.

As we've looked at these potential projects, UC San Diego has really been a critical technical and environmental justice partner. There at UCSD, the Center for Energy Research is the entity we rely upon. At every one of our Technical Advisory Committee meetings, they make presentations. And some of the list of topics on the right-hand side, you can see, looking at potential locations for these DERs, the community load requirements, the capital costs, the levelized costs of energy. So they've really been helping our way through there.

As we think about the possibility for these projects, we are looking to take advantage of an existing program pathway. And we've had a really good relationship with SDG&E, so we are looking at their EcoShare, their SB 43 program, to see if we can bring these projects online and provide that accessibility to the local residents.

As you may be aware, SB 43 programs and SDG&E's EcoShare allows for their local customers to purchase renewable energy from community-based projects. The customers, as sort of the model on the right identifies, will receive a credit on their ongoing SDG&E bill, plus they'll pay the subscription costs into the project. Our goal is to make those two bill elements, the ongoing SDG&E bill with the credit, plus the subscription price, affordable and, in fact, lower than, essentially, their current energy costs. It's quite a challenge. But right now the business modeling is looking promising because, again, we're looking at trying to think through.

And where are the underutilized assets, perhaps, in a DAC? School sites, school campuses that may go relatively unused for as much as 180 days of the year. So we're looking at, again, siting some of the renewable projects on property that's being transferred to the school district, vacated by Caltrans. And we also have had conversations, and we think a key to, perhaps, the model is looking at key institutional partners to helping sustain the business model by actually subscribing themselves to take energy there.

In our master plan, as well, we certainly want to integrate EV adoption. And this largely stems from our ongoing efforts, again, in partnership. We have a wonderful partner with UCSD.

And, in fact, if I can, and it will just take a second right here, our UCSD folks just emailed me, and they wanted to let you all know that today Nissan dealers in San Diego and Orange County started to offer all eligible SDG&E customers a $10,000 special rebate off the MSRP on the purchase of a new 2017 Nissan Leak electric vehicle. It brings EV affordability a significant step closer to DAC residents. And this is an extension of the successful program between UCSD and Nissan that has been ongoing for nine months.

So we're very glad to hear we have these innovative partnerships in the work. And again, with UCSD, we've been trying to address not only the affordability consideration here working with OEMs for the -- in the used/secondary EV market, looking at other incentives, including any bills that are currently making their way through legislature, like AB 1184.

We also are trying to put it all together, because we have about 400 UCSD employees that reside in our own DAC, and many more that reside in other DACs throughout San Diego, so we think there's an opportunity to market there.

Per the VW settlement, we also are proposing that some of the charging stations be located in our DAC, as well, and at some of the MUDs in our community.

So we have experience. And we certainly have learned in terms of the outreach. We have some projects that we'll be proposing as part of the master plan to generate renewable energy and create and make that accessible and affordable for DAC residents. And the master plan will include elements of EV adoption.

The last slide then is us. This is our team. We thank you again for the grant, for the opportunity. And we feel very confident we'll deliver an exciting and innovative master plan for you.

Thank you.

MR. ECKERLE: Okay. Thanks Ed.

Our last final presenter for the day is John Harding with Charge Bliss. And he'll be presenting on two projects, the City of Carson Advanced Energy Community, as well as the Kaiser-Richmond Renewable

Microgrid.

MR. HARDING: Yeah. Thank you. I'm John Harding. I'm the --

COURT REPORTER: Get your mike a little closer. Thanks.

MR. HARDING: No problem. Yeah.

I work for Charge Bliss. We are a small business based out of Southern California. I'll just be brief and go through the two projects that were we were fortunate to be funded through the CEC for.

Next slide please. Okay.

So the first one we're doing, which I'm happy to report actually just went live today, we just had powered on the solar and the batteries, but it's Kaiser and Richmond. And it's a 50-bed hospital. Just, you guys pretty much know the location. It's the only hospital in Western Contra Costa. It's an adult critical care, emergency room, community health facility. And it's obviously OSHPD governed, which creates its own massive amount of challenges that we have amazingly navigated. Not to pat ourselves on the back, but it was a fun one.

Next slide please.

Some of the project goals are, obviously, to identify and surmount the obstacles for healthcare facilities, to promote microgrids for them. And there were quite a few, and some very valuable lessons learned that we'll obviously be reporting up to the Energy Commission. Demonstrate the viability really of hospital microgrids and the benefits to the utility ratepayers.

Some of the -- one thing to note that is really different about our project, I would say, is that, I believe, this is the first hospital in which OSHPD helped us engineer the plans, and that we will be tying into emergency power with the battery and solar, which is usually just set up for Gensets, but this will be one of the first. We will be able to demonstrate that we could, for a time period, replace what a Genset will do. Now it's not for the entire building, but it's just under one of the life safety panel, which is still under emergency power, so that's really exciting news.

Next slide please.

Some of the objectives, as well, standard value-stacking items, really, here; demand reduction, arbitrage, energy production inefficiencies, and again, the ability to -- the one piece here is the ability to island on emergency power.

Next slide please.

We actually had to set it up on -- the solar up on top of a parking structure. Unfortunately, they're very land-constrained up there. But here's a picture of it.

Next slide please.

It should be the battery and inverter set up here.

Next slide.

Our next project is ZNET Community in Carson. Carson is a unique city in that they have 19 properties, 5 main buildings and 14 parks. And the parks are highly utilized within the community for community centers and community activities.

Next slide please.

Some of the things we're going -- we're planning on doing is basically designing. Obviously, we'll be doing design, shovel-ready design plans, incorporate EV charging, LED lighting, heating and cooling deficiencies, solar generation, batteries, these are some of the components that we're looking at for our advanced energy community.

Next slide.

In this project, we are looking at adding anywhere from -- it's about 75, well, between Level 2 and Level 2, EV chargers sprinkled throughout all of the parks and the actually City Hall Community Center that they have, really trying to promote EV charging for the residents in the area. The MUDs are not really large in that they're not really huge apartment complexes. There are a lot of two- and three-resident buildings. So the idea is to open up the parks to overnight charging and place the chargers in those parks, because each park is surrounded by, actually, very nice neighborhoods, really. But we're working with the city council and speaking with them, even tonight, you know, to come up with a plan to allow people to charge overnight.

This project is going to have anywhere from three to four megawatt of solar, five-and-a-half megawatt-hour battery. We're working with STEM students, with CSUDH and ITEP (phonetic) and LAUSD, yeah, and promoting. Obviously, we'll be incorporating LED, building management systems, improved chillers.

Next slide please.

The city has 384 overall meters. There's about, you know, 8.1 million kilowatt hours a year; we'll be addressing 108 of those. Again, there's 19 properties, 31 meters, with an additional 77 that are under a TOU rate plan. So the idea is to offset all of the community that we're dealing with. But, unfortunately, the remaining meters aren't part of something that we can actually offset through a rate structure plan. But in the end we'll still be offsetting about 68 percent of the city's meters.

So next slide please.

And then, yeah, Carson, located in South Bay area. These are just some statistics that -- and some graphics for you guys to look at. Obviously, most people are familiar with it.

Next slide please.

Again, Carson here. It's population, 91,000. Certainly, ethnically diverse. There's your statistics on housing, owning and renting. It's the third largest city in the South Bay. It's a hub for a lot of dirty air, for sure, with the industry that is there and the highways that run right through it, and certainly something that we are definitely trying to improve.

Next slide please.

Here's just kind of a general summary on what site gets what. This is our approach on the AEC in general.

Next slide.

And that's pretty much it, to be brief.

MR. STOKES: So, Commissioners, we're right at 3:30. Maybe we'll go to, do you have any comments or questions for the panelists?

CHAIR WEISENMILLER: Yeah. I was going to give a question on Mr. Herrera's presentation. And the thing I thought was great about it was when I was in China was Z Park. You know, and certainly we've got the connection now between our incubators and theirs. They also have a very disciplined approach. You know, there was a question from some folks about do you want to -- should you just fly startups to China? And it was like, no, do not. You know, it was like here's our very focused program that goes through and trains people and gets them set up. And if someone has passed that in one of our incubators, then they would do more the video connection, they would do some due diligence and decide, do you have a chance in hell of getting any work out of China, as opposed to here's your ticket to Beijing, show up totally jet lagged and out of pocket, you know, thousands of dollars, and then come back empty-handed.

But it was definitely one of those, you know, here's a very disciplined approach to really go through and make sure people have a business plan where they've trained, you know, and then get to the point of saying, okay, you know, does this product have a real viable market in China? And if it does, then certainly they're prepared to roll on it with you.

MR. HERRERA: Yeah. I know.

CHAIR WEISENMILLER: But again, it's, you know, definitely not one of those, start sending people from Fresno tomorrow under the theory that, you know, maybe something will click.

MR. HERRERA: Right. No. That’s a great suggestion and we’ll definitely look into expanding on that. And as I mentioned in my presentation, aside from the CEC filter that we’ve created --

CHAIR WEISENMILLER: Right.

MR. HERRERA: -- there’s an additional filter, an additional layer of services from the federal money that will -- I think those are the people that --

CHAIR WEISENMILLER: Yeah.

MR. HERRERA: -- are really going to be candidates for something like this China opportunity. And so I will definitely take your suggestion and --

CHAIR WEISENMILLER: Yeah.

MR. HERRERA: -- work with our team --

CHAIR WEISENMILLER: Yeah. I mean --

MR. HERRERA: -- and see what we can do.

CHAIR WEISENMILLER: -- I think there’s a lot of opportunity there. They certainly want to invest. Obviously the other, you know, suggestion (indiscernible) was that people be more significant companies. You know, again, the IP issues can be tough there. And if it’s, you know, again, if you’re sort of a one-man shop that has just a concept, you know, it's not likely you're going to get very far. But certainly, there are a lot of very substantial companies.

MR. HERRERA: Yeah. And I mentioned the capital infusion that has come in already within the 12 months that we've had your funding, those four companies, I think, would be some of our early candidates to consider for an
opportunity --

CHAIR WEISENMILLER: Uh-huh.

MR. HERRERA: -- like this --

CHAIR WEISENMILLER: That would be good. Yeah.

MR. HERRERA: -- their help on campus at the incubator.

CHAIR WEISENMILLER: That would be good.

MR. HERRERA: Thank you for your suggestion.

COMMISSIONER MCALLISTER: Yeah, just quickly, a couple of hopefully quick questions.

First, I just want to say congrats to Ed, and thank you for being here. This is a great panel, all of you. But having just gone down to visit you guys, I would just highlight that part of what makes a project like that real just ripe for success is the leadership that you and your counterparts show that bring that gravitas. And, you know, you're, as leaders in that community, you're saying, okay, we think this is important. And that becomes much more easy in the community to sort of really around. And I think that sort of role, positivism and leadership, is -- we need more of that up and down the chain, but in particular in the local communities, you know, down within the cities and within the counties.

And so I want to just say thank you for that because I think it's really important. So, you know, I just wanted to give you credit where credits due on that. So thanks.

And then I have two questions, one for Catalina if she's still on. I'm not sure if she's still listening in.

MS. LAMADRID: I am.

COMMISSIONER MCALLISTER: Great. So you, in your recommendations, you brought up the need for Hispanic contractor network, and I totally agree.

MS. LAMADRID: Yeah.

COMMISSIONER MCALLISTER: And I think that's great. I guess I'm wondering if you -- I mean, for many reasons, obviously, that's a good thing.

I guess I'm wondering if you, in your surveys and in your work, did you ask questions specifically to the families about how likely -- or what they're looking for in a contractor, or how likely, you know, they're going to pick one criteria? You know, which criteria are really the ones that they utilize to choose a contractor, to look for a contractor, you know, and sort of that cultural element that you were referring to --

MS. LAMADRID: Yeah.

COMMISSIONER MCALLISTER: -- and what that looks like?

MS. LAMADRID: Yeah. We did ask them general questions. I mean, the study was broad, so we dug, you know, as deep as we could. There were questions about how do you go about finding somebody to do work in your home. There were questions about, you know, do it yourself type of work versus (indiscernible) networks. And really what came out of it is, you know, personal connections. A lot of the people said that they will try to do things first themselves first, or a member of the family. Then they said that they would turn to friends and would ask.

COMMISSIONER MCALLISTER: Uh-huh.

MS. LAMADRID: \Like the majority of the contractors they work -- that they work with were Hispanics themselves.

Now I didn't talk about the recommendation. But I would say in my work in other jurisdictions, that is part of the issue that we usually don't think about. Like I feel like we focus a lot on the engagement, and as I mentioned, the community-based organizations. But often times, if these type of programs have certain requirements for, you know, using a certain like contractor to do the work, and if those networks don't exist, then these communities cannot participate.

COMMISSIONER MCALLISTER: Uh-huh.

MS. LAMADRID: And, you know, obviously, the other thing that I think also the EcoVillage project highlighted is, you know, word of mouth spreads like wildfire in this community. So what we've seen is that there are certain contractors that are so successful at just engaging, you know, all the homes in one block and working with them within a community. But again, if that network is not there, then you're leaving everybody out.

COMMISSIONER MCALLISTER: So thanks. And I want to just point out the sort of tension between having this very kind of local, you know, along the continuum, down towards the do-it-yourself-er, but also needing quality work to reach our policy goals in there. So there's sort a bit of an inherent tension there.

MS. LAMADRID: Absolutely.

COMMISSIONER MCALLISTER: So, you know, how do we ensure we get quality, but also really get down to the local level? And I'm not proposing, you know, solutions to that, but I think that's kind of what we're here for, is to figure that out and move forward on the recommendations and deepen. So I'm really looking forward to seeing your final product.

MS. LAMADRID: Yeah. And, you know, a quick thought on that, I know we're out of time but, you know, definitely there's a need for it. And there a strategies, you know, offering certification workshops within the communities for the contractors --

COMMISSIONER MCALLISTER: Yeah.

MS. LAMADRID: -- making sure that you're doing outreach with them, doing it in Spanish. Sometimes you need to -- some of the utilities have really strict insurance requirements.

And I understand there's a balance between quality. But, yes, there will be some recommendations we'll provide. And I definitely think it's something worth looking at.

COMMISSIONER MCALLISTER: Great. Thanks very much.

And then just quickly for John, I have a question.

You mentioned DR as one of the kind of layers in your value proposition, automated demand response, and you're trying to do some of that. I guess I'm kind of wondering, in brief, how it's going? And I also want to point out next week's Demand Response Workshop. We're going to have some service providers that are along the lines of your business model at that one, as well. And again, it's a nut we're trying to crack to scale up the opportunities in demand response, and the real results we're getting from it. So I'm kind of interested in your experience there.

MR. HARDING: Yeah. As of now the hospital, we just went live today. So, unfortunately, I don't really have any data yet but will soon, and be able to provide that really soon.

CHAIR WEISENMILLER: I was just going to point out to you that Diana Dooley, who certainly some of us know from Brown 1, is very interested in the energy efficiency issues. And certainly, as you run into issues with our fellow agency, if you bring them to Andrew or my attention, we can try to get them resolved more at a higher policy level.

MR. HARDING: Okay.

MR. CAMACHO: I have a quick question for Catalina, if I may.

Are you still with us, Catalina?

MS. LAMADRID: Yes.

MR. CAMACHO: Okay. I was actually very interested. Thank you for your study. And perhaps I'm actually personally interested in reading it. If you could submit it for the record, that would be great.

I was interested in your --

MS. LAMADRID: Uh-huh.

MR. CAMACHO: -- sample size, actually. And also --

MS. LAMADRID: Uh-huh.

MR. CAMACHO: -- I assume by Hispanic, you're going by the census definition; right?

MS. LAMADRID: Well, for participation in the study, we asked people to self-identify.

MR. CAMACHO: Okay.

MS. LAMADRID: We, you know, didn't really have -- want to get a diversification of those things. There were some immigrants that we interviewed, a lot of first-generation. And they're aware, I mean, mostly as the composition of California, mostly as Hispanic -- Mexican descent. But we also had Puerto Ricans, Columbians and Guatemalans.

And in terms of the sample size, so we had -- I mentioned there were different interview or research methods. We engaged, I believe, 11 or 12 experts that worked with the utilities, that work with CBOs, different government bodies with Hispanics. So that was the first layer of subject matter expert interviews.

We then used a journaling approach. So we kind of gave site participants a seven-day journal that they needed to complete that asked them to talk about their day-to-day use of energy, but also some (indiscernible). And we had over 50 completed, and some incomplete ones. And then we did 18 in-home interviews which lasted three hours, a lot of good talkers and a lot of good information there.

But that was -- yeah, those were the numbers for onsite participation.

MR. CAMACHO: Thank you.

COMMISSIONER SCOTT: I wanted to make maybe just a quick observation between the previous panel and this panel.

And with the small businesses, I'm thinking, Ismael, about the Valley Ventures Accelerator Program and like, oh, wow, I wish they were here still to hear about that. And I know it's still a competitive process and all of those things, but it's a great opportunity. And I know maybe matchmaking was too strong of a word. But the connections and the networking there, I think, are really important.

And, Ed, I kind of had the same thoughts, and I wanted to thank you so much. I also had a chance to visit Groundwork San Diego and see the project. And you all were fantastic. It's a really inspiring plan that you are putting together there. And that's another great opportunity, right, for small businesses and local businesses, right, to really directly engage and participate.

So maybe there's no question there, necessarily, but I just wanted to kind of bring a connection between this excellent panel and the one we had before.

MR. LOPEZ: Thank you very much. Yes, we've been fortunate to both have Commissioner McAllister and Commissioner Scott join us. And you're absolutely right, lots of opportunities, lots of barriers and challenges still that remain and to overcome. But we think some really good public-private partnerships can find some innovative and unique solutions.

COMMISSIONER GUZMAN ACEVES: Quick question for John.

What is the size of your island life-safety backup?

MR. HARDING: The size of the panel?

COMMISSIONER GUZMAN ACEVES: Well, how many megawatt hours or how many --

MR. HARDING: Actually, it’s a 400 amp panel.

COMMISSIONER GUZMAN ACEVES: Okay.

MR. HARDING: So --

COMMISSIONER GUZMAN ACEVES: So it’s -- what does that translate into? Not very much; right? I was looking at the --

MR. HARDING: Yeah. It’s not a very large panel. No.

COMMISSIONER GUZMAN ACEVES: Yeah.

MR. HARDING: It is safety lighting, sirens, things of that nature are off of that panel. It was really, in this particular case for this hospital, it was really hard to find a panel that we could panel, essentially, constantly. I mean, if the sun is out, and for how much battery we have we could actually continuously power that panel for more than the three hours that are required. But the way the hospital is set up, the electrical layout, it just wasn’t ideal to go to other panels. They were just --

COMMISSIONER GUZMAN ACEVES: Uh-huh.

MR. HARDING: The routing of how you had to tie into them, the shutting down process, which is a really difficult process for a hospital to shut down at all, and, yeah, those complexities really drove us towards this. Really, we had about one option for a panel. We would like -- yes, we would love to dump into all of our emergency power and demonstrate that we can power instead of -- you know, with batteries instead of Gensets, but it just wasn't the case in this particular hospital.

COMMISSIONER GUZMAN ACEVES: And I just was wondering, in terms of the Carson zero-net energy community, obviously down in San Diego -- and we've heard, and I know you've funded some in Fresno. I'm just wondering if there's some value in some cross-learning?

And one of the things that came up in your presentation, Ed, you mentioned the SB 43 kind of community solar option. And we have a proceeding, I mentioned earlier, on the Net Energy Metering proceeding, where, just stating the facts here, that the utilities have proposed basically an option around SB 43. And the schools have proposed a different option. And your description was a little bit in between both of those proposals.

So I would ask for you to maybe spend a little time, if you could, on what's been presented. And I would be really interested in your recommendation on how we should move forward. And that would be, you know, something that I know has come up from some of the community folks in Fresno. I haven't heard much from Carson. But I do think it's something that is kind of picking up.

CHAIR WEISENMILLER: Well, I was going to say, what we have done, and maybe planned or not, but we can certainly not have chosen to do that, is where we do these sort of microgrid projects or zero-any projects, at some point to bring together the number of entities doing these to try to go through the lessons learned.

If I remember correctly, we did this on ZNE, oh, I'm trying to remember whether it's one year or two years. I mean, at this point, they sort of blow together. But I remember that conversation, you know, as we were doing one of the studies on stuff. So I think that would be a good forum. And again, you know, certainly these tend to be pretty staff intensive, although I think I was at least at some of the ones before.

You know, again, I try not to, you know, suddenly discover they can't find a slot on my schedule for six months or something and everything sits. But, you know, they find the right balance there to keep the conversations going.

But, you know, certainly, we can give you a heads-up when they're coming along, you and the PUC staff, yeah, for that type of --

MR. LOPEZ: It’s a great suggestion. CEC staff, at the beginning of sort of this whole grant cycle, did a wonderful job of bringing us together. I think it was tied to when you launched your showcase. And you’re absolutely right, there’s a lot of benefits to understanding how other projects are starting to address and propose solutions to how you -- what pathways do you take advantage of, what are the programs, challenges, how do you make it affordable, how do you actually bring together everything, including private capital, which is going to be huge?

So, yes, we would look forward to that. And we can provide some comments on the various rulemaking and legislative acts to address that.

MR. HERRERA: And I could quickly piggyback off those comments and brief inviting you all, but our office is part of another EPIC project that’s related to what I presented today. It’s the Biodeco Zero-Net Energy Farm in Five Points, California. And I wanted to invite -- take the opportunity to invite you all, and the staff from both Commissions and those in the audience, to join us on November 2nd at the Tulare Energy Center, the Southern California Edison Tulare Energy Center, where we’ll have a summit symposium highlighting the zero-net energy features at this farm and some best practices that have come out of that. So you're all welcome to attend.

CHAIR WEISENMILLER: I know when I've been down in Fresno, it was pretty clear, your institution is very close to the community there, particular the agricultural community, in that you -- obviously, a lot of us, as we think about water or, say, tend to think of, say, Davis. But it's pretty clear in that area, you know, Fresno really is a key part of the community and the community leadership.

MR. HERRERA: And I appreciate that.

I also want to add that our efforts in the disadvantaged communities have also been recognized nationally by a body of our peers a couple of years ago. So we have a very strong Rural Development Center that engages stakeholders. So coupled with what we do with industry, we're positioned to offer projects like this.

Thank you.

MR. STOKES: Well, thank you, Commissioners.

And a big thanks to all our panelists.

MS. RAITT: So we'll go ahead and get set up for our last panel on Front Load Efficiency Opportunities.

All right, so we'll go ahead and get started. Our moderator for this panel on Plug Load Efficiency

Opportunities is Robert Ridgley from the California Energy Commission.

MR. RIDGLEY: Thank you. My name is Robert Ridgley. I work in the Existing Buildings and Compliance Office in the Efficiency Division at the California Energy Commission. I will be the moderator for today's panel on Plug Load Efficiency Opportunities for Low-Income Households.

Could we have the next slide please?

We're fortunate to have a strong expert panel for today's discussion. Our panelists are Anne Arquit Niederberger from Enervee, Lisa Schmidt from home Energy Analytics, Joy Pixley from the UC Irvine California Plug Load Research Center, and Marti Frank from Energy For Everyone, who is joining us via WebEx.

Next slide please.

So the fifth recommendation from the Barriers Study report, excuse me, calls for the legislature to require collaboration among all program delivery agencies to establish common metrics and collect and use data systematically across programs to increase the performance of these programs. In addition, recommendation 5E (phonetic) recommends to ensure that low-income persons have product selection options and information necessary to avoid driving up their plug load energy use.

Next slide please.

So the Low-Income Barriers Study Report identified a number of issues for consideration when developing strategies for increasing plug load efficiency in low-income households and disadvantaged communities.

This slide and the next highlight major issues. And the main takeaways are understanding appliance and plug load use characteristics and how low-income buying habit different from those of the general population can lead to program designs that address the needs of low-income households. Programs should be guided by the real energy needs of low-income households, rather than relying on established programs like ENERGY STAR.

Continuing on, plug load result in a large portion of a low-income household's electricity needs. Low-income households and building owners tend to buy lowest-cost products that are not as energy efficient. And obtaining information on energy efficiency and lifecycle energy costs of a device is time consuming, and the information is not easily accessible.

Next slide please.

So the charge for the panel today is to identify opportunities for expanding plug load efficiency to low-income households. The four questions for today's panel are: What unique barriers exist today for program participation? How can data on low-income household energy use and buyer behavior be improved to better target program participants? How can incentives and information programs be improved to focus on low-income barriers? And finally, how can low-income households and building owners be empowered to make better product decisions to reduce energy use?

Each panelist will be given about six minutes to provide a quick explanation of their role in plug load efficiency, and to make his or her most important recommendations related to particular aspects of these questions. Overall, we will attempt to get answers to all parts of the questions.

So with that as background, we'll begin with Anne Arquit Niederberger.

MS. ARQUIT NIEDERBERGER: Okay. Thank you very much.

So Enervee, we're based in L.A., and we're a big data, SASS (phonetic), and behavior research company that operates customer engagement platforms for utilities. And we power these online marketplaces for Los Angeles Department of Water and Power, PG&E, and SDG&E right now, and so serving 60 percent of all the households in California. And in addition, SCE and SoCalGas have also been mandated by the PUC to have these online marketplaces available by the end of 2017. And in addition, we also have a national porter, Enervee.com, that's available to everybody in the country. So basically, everybody in California has access now, or by the end of the year, to these online efficient product marketplaces.

And I just want to say that this -- we've made a ton of progress since the 2016 update to the existing Buildings Energy Efficiency Action Plan that the CEC put out in December where these marketplaces were actually featured as a plug load market transformation strategy. And so what I wanted to do in the short time available was just talk about how these marketplaces can be leveraged to address the barriers and to modernize low-income programs. And I specifically want to emphasize how big the opportunity is to take a much more market-oriented approach than what we've done up to now.

So when we submitted comments to this, you know, this docket, you know, about a year ago, we emphasized that trends in big data availability, and also trends in the modern shopping journey, how people actually shop for products, that they've created a lot of new opportunities to improve on low-income programs. And so these marketplaces, they respond directly to exactly the recommendation that you cited, to make it possible for low-income customers to actually research and select and buy efficiency products.

The vast majority of people nowadays, whether they're -- regardless of age, regardless of their income, whatever, they increasingly research and purchase products online. And even the major domestic appliances which, you know, traditionally people actually bought in the store, the online sales of those products increased just last year by 38 percent, compared to 2015. And I'm sure you've been seeing headlines where, you know, for example, Sears is going to start selling Kenmore products via Amazon. So there's a real trend towards online, and certainly for research.

And low-income households are no exception anymore. The 2016 LENA (phonetic) Study showed that 90 percent of households that they surveyed have access to wi-fi in their homes. So it's not true anymore that there's really this big digital divide in California. And also, these people have a mix of computer, laptop and smart phone access via wi-fi.

So I'm not going to be able to talk about the actual features of the marketplace today. Obviously, we don't have time. But if you're interested, there's also going to be an event tomorrow here in the same room at 11 o'clock where we're going to do a demo and talk about it in more detail. And all of the marketplaces are publicly available that are already up and running, so you can always check them out.

So what I just wanted to quickly highlight were the main contributions that these online marketplaces make to, you know, to fulfilling this recommendation that you -- that the CEC put out. I think one of the most important ones is that for the first time we're able to remove a major barrier, which is market in transparency. So because we have daily updated information on every single product that's offered for sale, including the best retail price every day and all the energy characteristics, we can make efficiency visible so that people can take it into account when they shop. The second major -- and I'll come back and give, really, some cool data that we have about this.

The second major contribution is that we can empower low-income households to manage their energy on an ongoing basis, and so not just, you know, come in and treat the household through ESA (phonetic) every several years with a few products, and then also maybe reduce their energy bills, which is actually a disincentive to invest in energy efficiency. So what we're able to do with these marketplaces is engage people on an ongoing, very meaningful basis. And there's huge potential then to scale efficiency savings in this segment and to mobilize low-income investment in energy efficiency.

And the third major contribution is that the data that we have and the knowledge that we have about how people respond to messaging and, yeah, I mean, following up on a lot of things that previous speakers said, we have a lot more information than we did a year ago about how to improve and come up with really innovative, low-income programs that will go far beyond where we are today.

Just, let's see, I just want to say one thing about the marketplace transparency. So what we have that's new is a 0-to-100 energy efficiency index for every single product model that's updated every day. So it complements, obviously, the ENERGY STAR label, which for many product categories in California is not of much use. What we see from our data is that the range of efficiencies among the ENERGY STAR can be, you know, a factor of five, even, in some categories, from the worst to the most efficient. So just ha they make product choices are double-digit more efficient than when the score is not shown to them, without any incentives. So we're really able to give people information to make smart choices.

And that data is also backed up by actual purchase information that we get from retail affiliate programs, so we also work directly with the retailers. And those data even show that people, they're not only finding more efficient products and purchasing them, they're also finding more efficient products that actually cost less. So I think this is big news for low-income energy efficiency.

And I -- you know, another thing just to point out is that there are 15 times more people who receive care subsidies than who are treated in a given year through the ESA Program. So there's all these people out there who, you know, in any given year are not being served right now through these programs.

And also, the other point is that the products that are actually covered by ESA are very limited, and that low-income households are making many investments every year in televisions, game consoles, all kinds of consumer products.

So I know that time is short. I have a lot more stuff I would love to say, but I feel I have to give you guys a chance, as well.

CHAIR WEISENMILLER: Well, again, we're coming up with the announcement of when written comments are due. And I certainly encourage everyone to put stuff in the docket, you know, if you've got reports that we should be looking at. Please, you know, put them -- file them. And that's a way for not only us but, you know, but for everyone else in this proceeding to get that information.

COMMISSIONER MCALLISTER: Anne's on a poster out in the lobby about the talk tomorrow, so check it out. I definitely want to encourage people to come. I mean, this whole panel, actually, is exactly what the AB 758 Action Plan elevated a couple -- a few years ago. And so just the progress that we've made I think is really impressive.

So anyway, I'll let Robert continue on with the panel.

MS. SCHMIDT: Hi. My name's Lisa Schmidt. Thank you for giving me the opportunity to speak today. Just a little bit of background of who we are, Home Energy Analytics.

My husband and I founded the company based on the idea that you could take smart meter data, analyze it, and help people reduce energy use in their home. To date, we've analyzed about 6,000 homes, primarily in PG&E territory. And we've participated in some other studies analyzing energy use, as well. And we kind of thought when we got into this project that plug loads would end up being a far bigger portion of energy use than was recognized by most of the studies going -- you know, starting in about 2010, 2011.

And what we found is that that’s definitely borne out, that a lot of energy use goes to plug loads. It’s increasingly going to plug loads. But the really good news is it’s fairly inexpensive and usually pretty straightforward to help people reduce those. So that, I think, is very good news for low-income projects.

And I had four points that I wanted to make about low-income projects. One is, talking about buying new products is wonderful, and I know the CEC is working hard on standards for new products, but there’s a huge backlog of old appliances and old products out there that are going to be there for a very long time. So we need to find some way in reducing how people use them, not just improving new ones. So our focus is more on how do you take people and teach them how to use the products a little more efficiently so that they don’t suck as much useless energy?

I think we’ve done a bit of a disservice as an industry in focusing only on asset improvements. And what we found in our outreach with individuals is that most people say, well, I really can't do much for energy efficiency because I can't afford to remodel my home. Well, you really don't need to do that to get good energy efficiency, and our studies have borne that out, as well. So I think we have to work on reeducating people that there's a lot of things you can do inside your home. They won't change your lifestyle, but they'll make smart sense and you'll be able to reduce your energy use, and they don't require a remodel. And I think that's something all of us have to start working on.

We are fortunate now, as an industry, to have access to so much more data than we were, even five years ago, AMI data, better data on appliances. But we're not really, as an industry, utilizing this data well yet. We're starting to. There's some really exciting things about 802, forcing the release of residential energy data, people having access to it. But we really ought to focus on programs that engage and use this data. And I'm specifically talking about AMI data, but there's other data out there that we can build programs on.

And I think we need to focus on a new paradigm for doing energy efficiency programs, particularly in low-income, but in all residential. And we used, in other presentations, the doctor analogy. So when you go to the doctor you get blood samples or you do other work-ups, and then they look at that and say, well, you may have these few problems that we need to tweak, and then they help you tweak those problems. Then you wait awhile and you resample the blood and you say, oh, well, it looks like you're doing better, but maybe we tweak again. So it's a continuous improvement. You measure, you suggest some changes, measure again and restart the process, so that you're continually improving it.

And that works particularly well with plug loads because things like vampire loads, or base loads, or stuff plugged in that you don't use anymore that's actually drawing quite a bit of energy, even when it's turned off. These are little changes you can make, you can measure, and you can tell your success, and you can keep going around and around.

So I think our recommendations for plug load programs, and these apply to low income, is that we need to tell people that plug loads can make a big difference. We need to utilize all the data and information that we have and give it to people so that they can make good decisions, and give it to them in a way that makes sense to them. And then we need to keep improving the process. It's not a one and done. We go back and work with people, or we help them work in their own community and understand what they're doing so that they can continuously improve.

Thank you.

MS. PIXLEY: I'm glad Lisa came first, because she already made half of my points.

I'm Joy Pixley. I'm a sociologist. I work in a multidisciplinary center called the California Plug Load Research Center, which is part of the University of California, Irvine. And our mission is to improve energy efficiency in plug load devices, both in terms of their design and in terms of their use. We hadn't thought of this as being a low-income issue, but now that you mention it, it really is. So I very much appreciate coming here and having a chance to talk to you about it.

One of the main things that we -- we do a lot of standards testing, design testing, research, but I want to talk today about user behavior and the kinds of research on user behavior that I think is going to be most important for this kind of topic.

On the one hand, I think we need a lot more research on what devices people actually have in their homes. I mean, the plug load devices aren't like HVAC. They're not something that everybody has. People have very different combinations of different devices, and they use them in very different ways. So it's probably not very effective to say everybody has one TV and they use it for five hours a day.

So the first thing is, what devices do people have and how are they actually using them, so that we can target programs more effectively for them? But in particular, I think we need to focus more on how are they using or, more likely, misusing the energy-saving features that we are sending out with these devices? So we're being very careful to regulate those. We're being very careful to create these beautifully energy-efficient devices. And then when they take them home or they take them to their offices, what do they do? Do they plug them in wrong? Do they have the sleep setting set until something goes wrong and then they disable them? So it's very likely, we thought, that they're not being effectively used.

So with that said, I want to try to get three points across in my five minutes that I have left. One of them is a really good example of what I just talked about.

So I was told, we were doing some work on computers, and I was told that we didn't have to worry about computer sleep settings because computers are shipped with the sleep settings enabled. Voila. Now we're done. Now there's some research out there that shows that when you go into office buildings late at night, an awful lot of them are still on, so something happened there. But when you ask people, they say that they have sleep settings enabled. Okay. There's a little problem here.

So with, thank you very much, Energy Commission money, we went out and we did a survey and we asked 2,000 people about all of their desktop computers and laptop computers. And sure enough, the vast majority of them said, yeah, I'm pretty sure that my sleep settings are on. We did a follow-up study with a small subsample of office desktops of those, and we gave them a chance to change their mind at the last minute, and they didn't. And we went and they looked at their computers, and let me see if I can get the numbers right. So 13 percent of them said that their sleep settings were disabled, and they were correct; 20 percent of them said that their sleep settings were enabled, and they were correct; and 67 percent of the people thought that their computer was going to sleep and it wasn't. So this is a huge number of people who think that they're doing the right thing, and they just don't understand what's going on with the computer, and literally had people say, but the monitor goes off.

So this was a wake-up call to us. So what's going on? What are they confused about?

And so we are also on the same EPIC Program with the solution. And the solution we hope is the solution is to help to inform and give feedback to them.

So my second point is that we hope that users will be more effective in their energy-saving behaviors if we give them feedback, more education, more ability to know what they're doing.

So with our grant, what we've done is we've developed a new software app that goes on the desktop. And not only do you have a very easy way of actually seeing what you're sleep settings are. Instead of it saying it's balanced or something, you see what it is. But you get these wonderful graphs and charts, and it has little smiley faces if you're doing well, and frowny faces if you're doing bad. And let me tell you, they hate the frowny faces. They really are motivated to not have their things show frowny faces. So the idea is that you will learn more about what your computer is actually doing when you walk away, and that this will help you to guide your own behavior. It's working with me, I'll tell you.

So another version that we have of that, and this is very similar to what Lisa just talked about, is we have a device called the Energy Channel. And the idea is it's very similar to other kinds of in-home devices that show you what your energy use is on a real-time basis. But instead of it being a device that might end up in the kitchen drawer pretty quickly, it's literally a channel on your television that you can click over to, and it's huge.

And it gives you, again, a lot of graphical information. It taps into other sources of information, the weather channel, SCE's Twitter feed. So it gives you tips and tricks. And this one doesn't have smiley faces, but it has a tree. And the tree gets all very withered and upset if things are going bad. So again, we have ways it gives you very specific information, but again, very graphical, sort of emotional responses.

So that's the second thing, data-driven information, empowering people by giving them feedback on their actual energy use.

And the third thing riffs off of what we're talking about here, is that low-income households, in particular, are going to have a hard time investing in the latest, greatest energy-efficient device. They're going to hold on to the old devices that they have. And when they do buy new devices, they're going to not get the smart thing, they're going to get -- you know, the smart device, they're going to get the cheapest thing that they have.

And so we've been looking into ways of adding on in ways that will make what they're doing more efficient without having to invest, not that that's a bad thing. Please do go invest of those.

So for one thing, the Power Management User Interface that I just told you about, that's free software. So we figured it's going through the EPIC Program. The ratepayers paid us to do it. We're going to use free software and give it right back to them, so that's a no-cost thing right there.

The Energy Channel itself, if you already have a smart TV, you can just download it for free. If you don't, you can get a Dongle to stick in there that costs about ten bucks. So you can take a regular, old, not very good TV and stick in there, and it's going to give you a lot of information.

We're also working on -- we have a prototype for something we call Projector Buddy. We have a lot of things called something Buddy. We have a Coffee Buddy and a Water Buddy. But the idea is that you have this little device that includes those machine learning algorithms. It monitors what the activities are of --

how the device is being used. It shuts it down if it’s not being used. So basically, it turns your stupid device into a smart device, again, just by adding this new little $10.00 thing. So somebody who can’t afford to buy anew $300 thing might be able to afford to buy a $10.00 thing to stick onto their old one.

So those are some ideas that we had about what we’re doing that might be more applicable to low-income energy efficiency.

Thanks.

MR. RIDGLEY: Marti, are you with us?

MS. FRANK: I am. Can you hear me?

MR. RIDGLEY: We can, yes.

MS. FRANK: Fabulous. Are you ready for me to begin?

MR. RIDGLEY: Yes.

MS. FRANK: Okay. Sorry. It’s hard to not be in the room. Thank you, guys, for allowing me to participate remotely.

I come to this work with an evaluation background. I spent nearly six years evaluating plug load programs in California and the Northwest. And I led two large market characterization studies of plug load products for the California IOUs. And what this really means is that I spent a lot of time in the data, program data, market data, retail sales data. And after my six-year data deep dive, I developed some hypotheses about two topics of relevance to this group, the barriers to efficiency that low-income households face, and what we can do about it. And I'm going to focus my remarks on those two things.

So my current work is in appliances. And in these products the key barrier is, from my perspective, pretty simple. In fact, sometimes I kind of wish it were a little bit more complicated. The barrier to efficiency for lower-income households is cost. And I will say, unlike our previous two panelists, I am talking about when people are buying new products. And it's not just any cost, it's first cost, the amount of money a household has to pay in order to obtain an efficient product.

It's been said already a couple of times on this panel, you know, the lower your income the less you can afford to spend. And low-income households, the people who were interested in here, are buying the cheapest products in the store. So that's a $450 refrigerator. It's a $450 clothes washer. And that $450 refrigerator or clothes washer is not ENERGY STAR, and it's nowhere near most efficient. You know, the cheapest products are cheap for a reason. They've got only minimal features. They're designed to perform their core function and pretty much nothing else. And stepping up to an ENERGY STAR product will cost the customer another $50.00 to $150. And to many people that may not seem like a lot of money. But to the household paying $450 for a washer, that's at least 10 percent, maybe even 30 percent more. And as the retail sales data show, people will not pay it.

So when we look at major retail sales of clothes washers, we find that among washer priced under $500, only five percent of sales are ENERGY STAR. But when we look at washers priced over $500, 90 percent of sales are ENERGY STAR.

And I only have time to make a couple of points, so here's the first one. The data show that the majority of today's non ENERGY STAR sales are occurring at the lowest price points. So focusing on shifting these customers into an ENERGY STAR product, I am arguing, needs to be an essential piece of the work that we do to hit our savings and emissions reduction goals. And I like to think about this as lifting the market up from the bottom.

Much of the work we do on voluntary programs focuses on the top of the market, spurring innovation, speeding adoption of new technologies, even downstream incentives, when we offer them on super-efficient products, are top-of-market activities, and these are great. We should absolutely continue doing them, okay? But we should also use our program activities to lift up the bottom of the market. Bottom-of-market activities benefit lower-income households and renters. And this, in my mind, is reason enough to engage in them.

They can also, however, when carried out of scale, have a market transformation impact on products shipped by China. Now this is my hypothesis, of course. But I'm arguing that a large increase in demand for entry-level ENERGY STAR products will over time result in lower prices for consumers and pave the way for more stringent minimum performance standards. And, of course, there's a lot more to say about that.

But in the interest of time I want to move on to my second topic, which is what should we do to lift up the bottom of the market? So I have one idea about how to do this. And certainly there will be others and there are others out there, but my idea takes the form of a program design called the shift model. Platte River Power Authority has the first pilot. And it's been in the field at one store, a major retail store in Colorado, now for just over 12 weeks. So I'm able to tell you a bit about what we've learned about this particular approach to lifting up the bottom of the market.

So the shift approach is based on the idea that first cost is the most important barrier to increasing adoption of ENERGY STAR appliances at low price points. And the key program activity is a midstream incentive which the retailer passes onto the customer in the form of a markdown. And this markdown makes the price of an entry-level ENERGY STAR washer and refrigerator the same as the price of a baseline or inefficient model. And we did this midstream incentive markdown for just two models, but we picked them carefully. So these models that we're incenting are nearly identical to the exact selling washer and refrigerator in the store, both of which sell for about $450 and are not efficient.

So after 12 weeks we found that 94 percent of customers chose to buy the ENERGY STAR washer, rather than the baseline or inefficient model. The incented model is now the bestselling washer in the store. And the baseline model, which used to be one of the bestselling washers, is now at the bottom of the list.

Among washers under $500, ENERGY STAR sales are up from 5 percent to 49 percent. And because so many sales, product sales, occur at these low price points, you can see the influence of this incentive, even though it's on a single model up at the category level, so among all washers in the store. So prior to the pilot, ENERGY STAR washers were 66 percent of sales, and now they are 77 percent.

So here's my second key point, these are not hard savings to get. In fact, the retailer does a lot of the work.

So in closing, I'd like to say that I, like all of you, I'm sure, I hear all the time that we've already reached the low-hanging fruit in energy efficiency, and that appliances are done. So I am here to argue to you to the contrary. In fact, I think that we have yet to grab the low-hanging fruit in the appliance market, and that we can do it by focusing our work on lifting up the bottom of the market.

Thank you.

MR. RIDGLEY: Thank you all. I think that concludes the prepared comments from the panel.

We'd like to turn it over to you, Mr. Chair, for questions from the dais.

CHAIR WEISENMILLER: Yeah. I'd like to start off with a simple one.

One of the things which, I guess, is the new rage in energy efficiency is digitalization, the notion that you connect everything in your house to the internet. And, you know, people talk about, potentially, major savings. Obviously, I've sort of asked the question to them about, well, what about standby power, you know, if you go through this? And they just sort of looked at me astounded, like what are you talking about?

So how do we balance that sort of smart, digital -- and, again, this is obviously not something where I expect low-income houses to be dealing with it, but it does seem to be part of this rage on the internet or whatever. Any reactions or commentary on at least that general theme? I mean, like (indiscernible) people, I think, have a paper coming out shortly which is saying 25 percent savings of energy efficiency if you digitalize everything, for example, I mean.

MS. ARQUIT NIEDERBERGER: Just one comment, and that is that under that AB 793 Energy Management Technology Law, there is an emphasize, actually, on low income. And so these marketplaces now, they will include energy efficiency technologies from air conditioners to washers.

They'll also include auto DR-enabled end-use technologies, like electric vehicles and storage water heaters, but they'll also include energy management technologies, like these kinds of apps, and also hardware devices. And part of that decision is that utilities have now a requirement to help their own customers that are having trouble paying their bills take advantage of all these opportunities, and I think we're going in that direction. And I can't answer your question, like what that will do for overall consumption. But clearly, if we work together with manufacturers, then we can, you know, reduce the standby load as we're ramping up the savings and demand part of it, as well, I'm hoping.

MS. PIXLEY: Yeah. We've actually been having very much the same discussion at Cal Plug, that IOT, IOT, IOT. And yet, you do have to, at some point, acknowledge that just because it's cool it doesn't mean it's going to save you energy.

And so one of the little sub-projects that we did, one that I didn't do, so I'm not going to be able to cite you specific numbers, but looked at not a digitalized thing, but smart bulbs. And so the problem is the same as what you just said, that there's something that's on all the time to monitor whether or not it should be turned off or turned back on. And you have to test it to see, is the amount of extra energy that it takes to make it energy efficient actually more than the energy that it's saving by being energy efficient? And in some of these bulbs, it was a lot more. So you were actually spending more money to have your bulbs go off automatically.

So you do have to test these things ahead of time. Just don't assume, again. But we haven't been able to test it in the whole IOT situation because IOT in the whole household requires all of your appliances to all talk to each other, and we haven't been able to achieve that yet, so --

MS. SCHMIDT: I'm a curmudgeon in that I don't think they have much value. You know, at some point it just becomes so complicated, what's the point? Certainly thermostats make a lot of sense, maybe hot water heaters because they can be used in demand response if you have an electric hot water heater, but --

CHAIR WEISENMILLER: Marti, anything from you, since you're on the line, on this issue?

MS. FRANK: Hi. Yeah. Thanks for queuing me.

I guess, you know, my comment would be that, you know, from my work on new products, and specifically low priced new products, I can tell you that a feature like internet connectivity, at least on the appliance side, is certainly not, at this point, being designed into the lowest cost products and likely won't be for some time, until it basically has either one of two things, no additional or very small margin additional cost, or it’s so requisite that even people buying the cheapest products will demand it.

And so I think that puts up on barrier in the way of the, you know, the internet of things being something that is beneficial to lower-income households.

And the second barrier, I think, is something that our other panelists mentioned, which is that, you know, when your resources are diminished, you spend as little as possible, and so you hang on to things for longer. And so if we make the assumption that lower-income households tend to have older appliances or have a longer replacement cycle, this is going to be another barrier to getting connected devices into their homes in such a way that it will help reduce energy.

So I guess I’m going to second, I think it was Joy (indiscernible) for benefitting lower-income households specifically in the near future.

CHAIR WEISENMILLER: Okay. Thank you. Thanks.

Andrew?

COMMISSIONER MCALLISTER: Yeah. So thanks, everybody, for all of this. And, you know, lots we could talk about, obviously, but I’m going to sort of stick to just a couple of points.

I mean, Marti, to your point about, you know, the bottom end of the market, I mean, at some level I kind of want to think, well, we do that at the Energy Commission, it's called Minimum Efficiency Standards, and we just knock off everything that's below a certain threshold. And, you know, I think in California, we wish we could do more of that and not have the federal preemption problem.

So, you know, in my book, one of the big things we might think about is how we can, you know, work on that preemption issue in a very straightforward way. I mean, I know the administration in D.C. is most likely not amenable to a waiver on preemption of -- you know, for refrigerator standards. But I think we need a plan to do that because we need those savings, and there are plenty of savings out there, I mean, you know, still on that bottom end of the market. And I think we're seeing that once we create a minimum standard the costs kinds of, to a large extent, sorts itself out. Once you have a standard, it just becomes standard and they produce what they have to produce. And so it's not a matter of differentiating a market and upselling to -- you know, looking for those different strata of the marketplace.

So, you know, hopefully collectively we can think about strategies there, even though I think that's probably, you know, an Energy Commission play, you know, at the end of the day.

So I want to endorse Joy's point about doing more, like finding out what's in people's houses. Back in the day when I was grad student, did surveys in homes in the East Bay all over the place. You know, me and a research assistant went around and we go in people's homes, and we got -- we collected a whole ton of data and did -- you know, we got published and all that. And it varies incredibly, I mean, people with almost nothing in there house to people with something in every plug and more, right, power tools, the whole deal.

And one of the conclusions was that back then, everybody had a cordless phone with an NiCad battery in it. And across the state, those cordless phones were taking up, you know, a 500 megawatt gas-fired power plant, that's what -- you know, if you do the math. And, you know, we even didn't load shapes, so we knew when they were being charged, more or less, you know, based on surveys which, you know, was probably good enough for that. And so actually could even tell what the demand implications of some of those devices actually were.

That's the kind of research we need. I mean, this is the ultimate distributed energy. You know, this isn't just about one meter and behind that meter, this is about every little bitty device behind that meter and adding up to something that's actually humungous and growing. And so I think we need to sort of think about it in that way, and that doesn't necessarily mean connect everything to the internet. But the things that are connected, we ought to figure out how we can manipulate them in a way that, you know, makes sense for users, but also for the grid.

So I guess, you know, I'm really -- since you all are thinking about this, and Marti, I mean, including you here, you all are thinking about this every day. I guess I just -- I feel like this is an area where, you know, we've been thinking about in the energy -- in the 758 Action Plan. There are some innovative programs out there. I'm really optimistic about these marketplaces, and just as a foundational tool that we can build on going forward. I mean, the implications of what you all are doing, those -- that foundation and the data that flows from it can really, I think, enable a lot of stuff that we don't even know yet. And so, you know, you've thought about that more than I have.

But I just want to keep this conversation going and figure out -- you know, from where we sit at the Energy Commission, we're working hard on data. But a lot of that is getting ourselves the properly desegregated data we need forecasting. You know, Mike is working along in the, you know, IRP context and the doubling context, and just figuring out how we're going to monitor how we're doing, you know, overall and how we're getting to doubling, whether we're getting to a doubling, trying to disaggregate those impacts.

But the next -- you know, alongside that and not too far after doing that at the policy level at the agency is getting -- figuring out specifically what data we can turn around and push out into the world, at what level of aggregation, to get it into the hands of the people who need it, whether that's researchers, whether that's market participant, whether that's users, building owners, all that stuff. We're doing some of that with AB 802 and benchmarking.

But I would really welcome your kind of understanding of the use cases for that kind of data and what the marketplace could really use and really value in that as we go forward. You know, I think we'll -- as we learn more, we're going to know more and we're going to be able to think in a more quality way about that issue.

So it’s a general plea for sort of your ongoing participation in this. And also just thinking about it from that perspective, if you had a magic wand to get, you know, X part of the ecosystem, you know, Y kind of data, what does that look like? And how -- you know, there are all sorts of barriers, you know, there’s privacy, there’s lots of concerns that people bring up, and so working through those issues in the policy context, you know, even a regulatory context. You know, I think we’re going to need good solid help to navigate.

So anyway, those use cases, I think, are something that are going to be really critical. And the PUC has done quite a bit of that already, and we can build on that. So just a general -- not a question, but just a general ask going forward.

MS. PIXLEY: Actually, can I respond to that now?

MR. RIDGLEY: Yeah.

MS. PIXLEY: Okay. Recently we had a reason to go and look to see what kind of data was out there about what kinds of devices people had in their homes and how often they were using them. We were trying to figure out what the range of behaviors were. Like I mentioned earlier, if you’re basing all of your energy efficiency estimates on the idea that everybody is using their one

TV for the average amount of time, you're going to be really far off --

COMMISSIONER MCALLISTER: Yeah. Yeah.

MS. PIXLEY: -- if this person is actually using two TVs at the 90th percentile, and this person is using their one TV at the 10th percentile. So we were trying to figure out, well, let's just look at the data that we assume must be out there. And you can tell where this is going. The data was really not out there, as much as we were hoping it was going to.

So we had, for instance, the RASS, Residential Appliance Saturation Survey, which was funded by the Energy Commission. We had the California Lighting Appliance Saturation Survey, the CLASS, and the national one, the Residential Energy Consumption Survey.

And of all of those, we were hoping that RASS was going to be the most useful, and it ended up actually being the least useful, I'm sorry to say. And partly that was because most of -- it's not the volume of information, but the way that the information was asked was asked in such a way of how many of all of your TVs do you have, how much time do you spend on all of your TVs? Whereas, some of the other surveys asked, okay, what's your primary TV? How large is that TV? How much were you using that per day? What's the secondary TV? How large is that TV? How much were you using it per day?

So we were able to actually, with the other datasets, drill down and figure out per person how much time were people spending on their TVs, whereas the RASS data was lumped in such a way that we couldn't use it on a per-device basis.

And also, I know I'm a researcher, so I'm obligated to say we need more research, but we need more research and we need it more frequently. So here we are, trying to send a report to Southern California Edison in 2016-2017, and they're saying, really, the most recent data you have is 2009? People aren't even using those devices anymore. So anything that we could do to get the data, anytime you're looking at longitudinal data, you need to have it be a little bit more frequently than that, so that we can changes over time. When you get to the point where the surveys are so far apart from each other that you can't even use the same words to describe the devices, because that's not what people use anymore, then you don't have comparability over things, so we can't talk about trends.

So that's my ask.

COMMISSIONER MCALLISTER: Nice ask.

MS. SCHMIDT: Okay. I’m going to offer rebuttal to that one.

MS. PIXLEY: Okay. Are you going to give me data?

MS. SCHMIDT: Yeah.

MS. PIXLEY: Great.

MS. SCHMIDT: I understand, or maybe I don’t understand, but I’ll pretend I understand the need for detailed data across a large dataset, you know, trying to determine what people have. But what we found is there’s no such thing. If you’re dealing with an individual and you’re trying to do an energy saving program, there’s no such thing as an average home. And so this concept of an average may be useful in some categories, but it’s not useful in the category of delivering energy efficiency programs to people. So that’s -- I think there’s a tension here between trying to drill down and create a vision of the average home or the average apartment or the average four-bedroom. It only has some usefulness, not a lot of usefulness.

And then you asked for the data that we would really love to see. I would really love it if the CEC or the CPUC would put out their target of dollar per kilowatt hour, what cost you want that to be for an energy efficiency program, so how much should I deliver a kilowatt hour of savings for? Five cents? Twenty-five cents? What's reasonable? And then --

COMMISSIONER MCALLISTER: Uh-huh.

MS. SCHMIDT: -- just let us go wild trying to hit it, and then three years later drop it by five percent. I mean, if you really wanted to drive energy efficiency programs, tell us the target to hit.

COMMISSIONER MCALLISTER: Yeah. I guess that's actually an interesting conversation. But I think there's kind of an implicit answer to that already, which is it has to be, you know, cost effective under these metrics. And you could actually back out what that means in terms of dollars per kilowatt hours.

CHAIR WEISENMILLER: Yeah. But let's make --

COMMISSIONER MCALLISTER: But, yeah.

CHAIR WEISENMILLER: Let's get realistic or more complicated now, in a sense.

You know, one of the things 350 did is really focus all of us on greenhouse gas emissions, you know, as opposed to, you know, the traditional programs. And so when you asked about benchmarks, then you get to the question of, okay, well, what are the greenhouse gas -- you know, what's the cost proof for the greenhouse gas emissions? And, you know, God bless, we're talking about some things. I mean, renewable gas that's supposed to be like $1,300. You know, I mean, that's -- can you do better than that, you know, I mean for example, you know? And I think, you know, some of the scenarios that the PUC is looking at is like 350. I know the social cost to carbon numbers, I think Obama had it at like 50. Obviously, cap and trade now is, you know, 12, 15, you know?

But again, it's -- can you do better? Yeah. Again, if you can start thinking about greenhouse gas emissions and the sorts of things we're looking at there, some of which are just incredibly expensive?

MS. SCHMIDT: I think you could do a much better job, actually, because then you would take into consideration fuel switching.

CHAIR WEISENMILLER: Yeah.

MS. SCHMIDT: And as we, the CCAs, get bigger and as we have more and more solar, make everything electric. If you're trying to reduce greenhouse gases, it would be a different equation and perhaps the more accurate one.

CHAIR WEISENMILLER: Yeah. I mean, that's -- I mean, that's -- yeah. Yeah.

Certainly, we are putting in place guidelines for the POUs in terms of their IRPs. The PUC is much more trying to do a here's some scenario cases on how you should do IRPs, so it's a more proactive approach. And, you know, frankly, the first couple times we do it, it's probably going to be somewhat cringe worthy. But, you know, we're sort of moving in the right direction there.

But again, that 350 really said, let's move away from the very silos to very much a GHG focus. And that's a totally different way of thinking about all these programs. And so, as I said, I don't think we've gotten there in terms of how to do the thinking, but we're at least trying to start rethinking things.

MS. SCHMIDT: Well, i think 802 and some of the HOPs (phonetic) programs are moving us towards measuring the energy efficiency programs in terms of dollars per unit saved. And as you go direction, a few million dollars per greenhouse gas ton saved, you can be very creative about how you deliver it.

COMMISSIONER MCALLISTER: So it seems like what you're really saying, and I was going to kind ask something along the lines of this, you're talking about in a performance-based approach; right? So I think that was implicit in what you said.

MS. SCHMIDT: Yes.

COMMISSIONER MCALLISTER: So I think that is true, like if we can utilize -- we cannot have every job be a custom job, but have every measurement be, you know, a measurement to that specific customer. And then we can start having a long -- you know, the law of large numbers sort of works in our favor, and then we can make better policy without, you know, doing a RASS every six months; right?

MS. SCHMIDT: Well, from an implementation point of view, you have one number you're trying to hit, so everyone becomes creative in trying to hit that number. So your measurement, dollar per greenhouse gas saved --

COMMISSIONER MCALLISTER: Yeah.

MS. SCHMIDT: -- is universal. And all the programs move around underneath it, trying to get to the best solution.

COMMISSIONER MCALLISTER: Yeah. I mean, I think there's something there. We need -- we can keep talking about it.

And I think Anne wanted to say something or --

MS. ARQUIT NIEDERBERGER: Well, two things. I wanted to point out -- well, three things. So you know --

COMMISSIONER MCALLISTER: Quickly.

MS. ARQUIT NIEDERBERGER: -- as long as you have an RPS, right, that sort of creates, I guess you could say, you know, from the energy efficiency perspective, sort of an unfair starting point if you're saying that you're supposed to deploy all cost effective energy efficiency but then you have an RPS. And so it's -- the RPS is at any price; right? So it kind of creates not a level playing field, so I just wanted to make that comment.

The other thing I wanted to say is that we did some calculations for New York, but we didn't have a chance to do it for California but I want to. So every dollar that you would invest in low-income energy efficiency, you also have to realize that you're then reducing the amount of money that you would have to spend under CARE Energy Bill subsidies. And for New York, it was like a one-to-four ratio. So every dollar invested in low-income energy efficiency would save you, over the lifetime of the products, $4.00 in annual Energy Bill subsidies that you otherwise would have had to pay.

So I think we need from -- you know, taking a comprehensive approach, also in the low-income space, start thinking about these things which are totally siloed right now. And that was another recommendation in your SB 350 Low-Income Barrier Study, that CARE customers should be enabled to redirect their subsidy money, not only to community solar, but also to end-use energy efficiency, and I don't think we've looked into that enough yet. And we definitely would love to do some calculations to make that point.

And then I just wanted to agree with what Lisa said about customers are not average. And so if you look at average prices in the marketplace for different levels of efficiency, it's really -- that's not the key point. And with these marketplaces now, we're able to not only let people look at the best purchase price that meets their needs, like how many loads of laundry do they do a week? We also let them look at the Energy Bill savings implications for their tariff and their actual usage, but also they can consider the total cost of ownership.

And I just wanted to give you just an example. I can put this into our paper. But I just looked at washers, clothes washers between four and five cubic feet. And what I found was that the total cost of ownership was 36 percent, 36 percent lower for the most efficient washer on the market, like there days ago when I did the analysis, compared to the cheapest model on the market. So it's -- and that's a huge difference that, actually, would more than cover the cost of the new appliance.

And so there's tons of room there, you know, with financing, or just with transparency, to let people make better choices.

COMMISSIONER MCALLISTER: So how do we get people to use these tools?

MS. ARQUIT NIEDERBERGER: Well, targeted marketing and outreach. I mean, we didn't have any time to talk about MENO (phonetic) really. That's one really obvious thing. We're so much better now because we know how people behave. We've been doing these behavioral experiments.

Also, the woman who talked in an earlier panel, Catalina, we can do much more targeted messaging. We know now when people are in the market, like for a refrigerator. We know what capacity they're actually searching for on the internet, so we can send them, and we do this right now, targeted adds about the most efficient products with incentives and such. So we're way farther along than we were two years ago.

And the other thing that we're working on, we applied for a CalSEED Grant. We don't know if we're going to get it yet. But we are very close to being able to integrate online point-of-sale incentives, so that people can purchase products online with any low-income incentives built in at the checkout cart on the retail website. So this will totally address that first cost barrier, together then with knowledge of which products are efficient and can save you money over time, we think it's a winning conversation -- combination, based on the experiments that we've done so far.

MS. PIXLEY: Can I jump in and talk about this average thing for a second? Because I would also like to say that there is no such thing as the average household. I think my point has been misunderstood.

The whole reason why I wanted more data was so that I could -- I'd get a better sense of what the real range of behavior was. So in one of the datasets that we found, for instance, the median use of televisions was 5 hours a day, but the 10th percentile was 2 hours a day, and the 90th percentile was 13 hours a day. So if you're telling somebody that their energy efficiency is X based on 5 hours a day, how different is that going to be if you're the 90th percentile versus if you're in the 10th percentile? So --

MS. ARQUIT NIEDERBERGER: Well, that's people don't respond.

MS. PIXLEY: Yeah.

MS. ARQUIT NIEDERBERGER: I mean, there's a whole behavioral science literature.

COMMISSIONER MCALLISTER: Yeah. Exactly.

MS. ARQUIT NIEDERBERGER: People don't respond when you tell them average savings amounts or something, because they know it doesn't really apply to their situation. So unless it's personalized and they believe it's relevant for them, they will ignore it.

And another thing we found is that whereas the Energy Bill savings information doesn't really resonate much with a lot of people, it's more the energy efficiency score that nudges their behavior. When you do just look at the low-income segment, they're much more sensitive to that Energy Bill savings information because it's more salient for them because --

COMMISSIONER MCALLISTER: Yeah.

MS. ARQUIT NIEDERBERGER: -- they have the CARE.

COMMISSIONER MCALLISTER: Yeah. So I'm going to cut this off now because we're already over time. But I do -- it almost gives me -- so this is a much different conversation than we had just a couple of years ago when we were working on the 758 Action Plan and there just wasn't this level of subtlety and the understanding. And so I totally agree with you, we've come a long way.

I want to think about how we can maybe dig in just a little bit more and get some policy conclusions from this so that we can, maybe in the next update of the 758 Action Plan or, you know, some joint work that we're going to do with the PUC, how to say, okay, here's where the state really needs to invest to get to the bottom of this and massify use of these tools, and really get better choices out there in the marketplace to happen because, I mean, it's happening, but we need it to happen faster.

So anyway, this has been a great discussion. So if anybody else wants to ask questions, I'll collapse.

CHAIR WEISENMILLER: Go ahead.

COMMISSIONER GUZMAN ACEVES: I just concur with your comments, as well as the Chairman's comments, because I do think we need to shift not only to a more simplistic accounting, but to greenhouse gas accounting.

CHAIR WEISENMILLER: Yeah.

COMMISSIONER GUZMAN ACEVES: And that will enable that fuel switching. So I do look forward to that and seeing what kind of creative ways we can get around the federal administration to increase our baseline on -- baseline in terms of what all of our residents are able to get.

And I'm personally very motivated by this because I was -- I bought a new refrigerator a couple of years ago, and there was like, I think -- we didn't talk about kind of false marketing and enforcement here, but there was a yellow sticker that turned out not to be the star, ENERGY STAR. So my refrigerator that was like ten years older than my last one was less efficient.

And, yeah, so I think there's definitely a lot of room for better education. And I just think we shouldn't offer some of the things as what we can do to get around that.

CHAIR WEISENMILLER: Yeah. That's good. No.

I was just going to say, too, just following up, obviously one of the things that Andrew and I are struggling with is the policy dimension and the forecast dimension, and certainly the implications of big data. As you said, by nature, at some point you're saying that, well, actually, we do it for building standards, we do it for a lot of things, so this is sort of what they expect the characteristics are, while, in face, you know, as you said, these are not very homogenous situations and everyone varies all over the place, so basically how to take a more real estate perspective on these for both policy and for, you know, forecasting and for standards; right? There's a whole series of things we -- you know, PUC programs. Obviously, your sort of targeting this as, you know, again, typical or whatever, and it's like six, ten people all over the place. How do you really connect to them?

So I think, yeah, I would certainly encourage

Andrew to keep digging, you know, digging on this.

But, yeah, at this point we will transition to public comment.

Actually, again, let's thank everyone for their participation today.

But again, I think we want to transition to public comment.

First, is there anyone in the room who wants to give a public comment now?

So let's go to the phone lines, Heather.

(Music playing on WebEx.)

CHAIR WEISENMILLER: Wow. Hey.

MS. RAITT: So we're going to open up the phone lines. So if folks on the lines could try to mute your phones, please, if you're there, and we're going to open up the lines, unless you want to make a comment, then, obviously, don't mute your line.

CHAIR WEISENMILLER: And if -- yeah. And what you can do is also you can email --

MS. RAITT: Right.

CHAIR WEISENMILLER: -- a question or a comment to -- because we can't possible get through the Muzak part.

MS. RAITT: All right.

CHAIR WEISENMILLER: So I think we're forced to.

Heather --

MS. RAITT: Forced to move on.

CHAIR WEISENMILLER: -- what --

MS. RAITT: I do have two questions that came out from WebEx. We're not really equipped to do Q&A, but I'm going to go ahead and read these questions.

The first one was,

"Since the official definition of DAC is the top 25 percent scoring communities, why is the goal that Melicia stated to target 10 to 15 percent of the funds to DACs? That seems like a continuation of underfunding efforts to those communities. Thanks."

And that was a comment from Nehemiah Stone.

CHAIR WEISENMILLER: Okay. So a more editorial comment, I think --

MS. RAITT: Right.

CHAIR WEISENMILLER: -- than a question.

MS. RAITT: Right. And the --

COMMISSIONER GUZMAN ACEVES: I just want to --

MS. RAITT: Oh, go ahead.

COMMISSIONER GUZMAN ACEVES: -- maybe correct it a little bit, which is that was a pre-350 infrastructure investment. So I think the new billion dollars, you know, applications we're looking at will certainly be higher than that.

MS. RAITT: Okay. The second one is a question for Anne Arquit from the last panel. This is from -- I'm sorry, I'm going to mispronounce this -- Arinda Roy (phonetic). The question is: "Why is ENERGY STAR not relevant in California?"

MS. ARQUIT NIEDERBERGER: Did I actually say it like that? No. Okay.

The point is that for some categories the ENERGY STAR qualifications are very stringent, you know, and represent a very small market share. But for a lot of product categories, in particular a lot of categories, like electronics, that low-income households might buy new themselves more frequently, like televisions. The market share of ENERGY STAR-qualified products in the most recent dataset that's available was something like 90 percent. And so within that ENERGY STAR-qualified group, you have a range in efficiency levels or consumption levels of, you know, three or fourfold.

And so it's not granular enough and it's not updated frequently enough to be a very good guide for people when they're actually shopping for a single product, trying to find the most efficient product that meets their needs.

So I want to say, these things are very complementary. So on the marketplaces the ENERGY STAR label is featured, but the score provides more granularity in a daily updated snapshot of relative efficiency.

CHAIR WEISENMILLER: Anything else?

MS. RAITT: I think that's all the public comments.

CHAIR WEISENMILLER: Okay. Then this meeting is adjourned.

Well, actually, no. You go -- what other comments?

MS. RAITT: I just want to --

CHAIR WEISENMILLER: When are written comments due?

MS. RAITT: Yeah.

CHAIR WEISENMILLER: Let's get that on the record --

MS. RAITT: Written comments are due August 15th.

CHAIR WEISENMILLER: -- again.

MS. RAITT: And that notice -- excuse me, the notice has all the information for providing comments, so --

CHAIR WEISENMILLER: If --

COMMISSIONER GUZMAN ACEVES: I just have one announcement.

CHAIR WEISENMILLER: Okay. Sure.

COMMISSIONER GUZMAN ACEVES: And I think my Adviser, Dave Gamson, left. But I was just going to wish him a happy birthday, and for sticking out his birthday here at the workshop.

CHAIR WEISENMILLER: However, he had better ideas; right?

COMMISSIONER MCALLISTER: But was he?

CHAIR WEISENMILLER: Fox and goose. Fox and goose; right? Okay. The video connection.

MS. RAITT: I think we --

CHAIR WEISENMILLER: Okay. So, yeah, I think I'm fine.

Do you want to do a wrap up?

COMMISSIONER SCOTT: No.

COMMISSIONER MCALLISTER: No.

COMMISSIONER GUZMAN ACEVES: I'm okay.

MR. CAMACHO: No.

CHAIR WEISENMILLER: Okay. The meeting is adjourned. Thanks.

(The workshop adjourned at 3:45 p.m.)

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

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