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BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the Matter of: )
) 20-BUSMTG-01
) Business Meeting )
) ________________________________

CALIFORNIA ENERGY COMMISSION

THE WARREN-ALQUIST STATE ENERGY BUILDING

ART ROSENFELD HEARING ROOM - FIRST FLOOR

1516 NINTH STREET

SACRAMENTO, CALIFORNIA 95814

THURSDAY, FEBRUARY 20, 2020

10:00 A.M.

Reported by:
Susan Palmer
APPEARANCES

Commissioners

David Hochschild, Chair
Janea Scott, Vice Chair
Karen Douglas
Andrew McAllister
Patricia Monahan

Staff Present: (* Via WebEx)

Drew Bohan, Executive Director
Darcie Houck, Chief Counsel
Rosemary Avalos, Public Advisor's Office
Kerry Willis, Staff Counsel
Cody Goldthrite, Secretariat

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a. Pursuant to Government Code Section 11126(e), the Energy Commission may adjourn to closed session with its legal counsel to discuss any of the following matters to which the Energy Commission is a party:


ii. Communities for a Better Environment and Center for Biological Diversity v. Energy Resources Conservation and Development Commission, and California State Controller, (Alameda County Superior Court, Case No. RG13681262)

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xi. *Olson-Ecologic Testing Laboratories, LLC v. CEC.*  
(Orange County Superior Court Case No. 30-2019-01115513).

b. Pursuant to Government Code section 11126(e), the Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published; or determine whether facts and circumstances exist that warrant the initiation of litigation, or that constitute a significant exposure to litigation against the Commission, which might include.

Adjournment

Reporter's Certificate

Transcriber's Certificate
CHAIR HOCHSCHILD: Good morning. Let's begin with the Pledge of Allegiance.

(Whereupon the Pledge of Allegiance is recited)

CHAIR HOCHSCHILD: Thank you and good morning everybody. Before we begin I just want to reiterate we will be taking Item 11 no later [sic] than 1:00 p.m. today. I just want to read a statement about that. Item 11, the Sacramento Municipal Utilities District Community Solar Program will be heard no earlier than 1:00 p.m. today.

We have a significant number of individuals that wish to provide comment on this item. Pursuant to Title 20, Section 1104, the Presiding Member may limit or preclude oral comments as necessary to ensure the orderly conduct of business in order to ensure that everyone wishing to comment on Item 11 has an opportunity to speak. Public comment on this item will be limited to one minute per person. So that's for that item, but we'll continue with the three minutes per person for everything else.

So with that, let's get into the agenda. Is there a motion on the Consent Calendar?

COMMISSIONER McALLISTER: I move consent.

CHAIR HOCHSCHILD: Moved by Commissioner McAllister. Is there a second?
COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: By Commissioner Scott. All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes.

Sorry, Commissioner Douglas, excuse me. That motion passes unanimously. Thank you.

Item 2 is off the agenda, so let's move on to Item 3, Palmdale Energy Project.

MR. WINSTEAD: Good morning Chair and Commissioners, my name is Keith Winstead. I am the Compliance Project Manager for the Palmdale Energy Project in the Siting, Transmission and Environmental Protection Division.

Staff is here today to recommend approval of the Palmdale Energy Project Request to Terminate Certification. With me today from the Chief Counsel's Office is Kerry Willis. The Project Owner will not be attending today.

The Palmdale Energy Project was first licensed by the CEC on August 10, 2011, as the Palmdale Hybrid Power Project, a 570-megawatt hybrid facility using combined cycle and solar trough technology.

The Palmdale Energy Project made efforts to meet market demands by amending plant design to a fast-start flexible natural gas-fired 645-MW combined-cycle power...
plant, and removed the solar component. The amended
project was approved by the CEC on August 9, 2017.

The project in the City of Palmdale was never
constructed and there was no ground disturbance. On
December 2nd, 2019 Palmdale Energy Project, LLC requested
the California Energy Commission terminate their license.
Their reason for termination, as stated in a
letter is, "There does not appear to be interest among the
State of California, the CAISO, the investor owned
utilities, or the Public Utilities Commission in
contracting for new natural gas fired resources to support
the growing need for flexible resources in the state."
Based on staff's analysis, staff concludes that
the request to terminate would not have a significant
effect on the environment or the environmental justice
population, and would be consistent with applicable LORS.

Thank you. If you have questions, staff is
available.

CHAIR HOCHSCHILD: All right, I have no
questions. Is there public comment on this item? No?
Commissioner Douglas.

COMMISSIONER DOUGLAS: I'll just comment briefly
on this item then. I served on the Committee that issued
the Presiding Member's Proposed Decision in 2011 for this
project as a hybrid technology project, and then again in
2017 for the petition to amend the project to use the
combined cycle technology only without the hybrid aspect.

As has been noted the project owner has stated
that they were unable to secure a Power Purchase Agreement.
That can happen and sometimes we will go through an
extensive environmental review and public process for
projects that very often at that time do not have a Power
Purchase Agreement. And if those projects don't get a
Power Purchase Agreement they won't be built. And that's
what we're seeing here, so with that I support the staff
recommendation and I move approval of this item.

CHAIR HOCHSCHILD: Okay, moved by Commissioner
Douglas. Is there a second?

VICE CHAIR SCOTT: Second.

CHAIR HOCHSCHILD: Seconded by Vice Chair Scott.

All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: Okay. That motion passes
unanimously. Let's move on to Item 4, Approval of
Disadvantaged Communities Advisory Group New Member.

MS. CHEW: Good morning, Chair and Commissioners.

My name is Kristy Chew. I am the Staff Liaison to the
Disadvantaged Communities Advisory Group. You have already
been provided with a proposed Resolution.

The proposed resolution would approve a
Disadvantaged Communities Advisory Group Member. A vacancy in the Group was created last year when another member vacated their position on the group.

The Disadvantaged Communities Advisory Group is an advisory body to the Energy Commission and the California Public Utilities Commission. It advises the Commissions on the effects of clean energy and pollution reduction programs in disadvantaged communities pursuant to Senate Bill 350.

Several candidates applied for the open position. Commissioners Scott and Douglas from the Energy Commission and Commissioners Rechtschaffen and Guzman-Aceves from the California Public Utilities Commission selected one candidate to recommend for appointment.

The appointee is Mr. Fred L. Beihn. Mr. Beihn worked for Southern California Edison's hydroelectric department for 25 years. He possesses a wide variety of knowledge and experience in the power generation and the electrical transmission and distribution systems.

In addition, more recently he has worked for his own company, Arrowhead Solutions, which provides consulting services to the power industry, on Native American issues, and is a real estate investment company.

He is affiliated with the North Fork Rancheria of Mono Indians of California and is currently the Vice
Chairman of the Tribal Council. In addition, he is on the Temporary Assistance of Needy Families Advisory Board, which is part of the tribal Social Services program. He also serves on the board of the tribe’s Environmental Protection Department.

Mr. Beihn is very knowledgeable in Native American issues on an individual level and on a tribal organization level, government-to-government environmental relationships, and social services. He is well qualified to serve on the Advisory Group. I am available to answer any questions, and I believe that Mr. Beihn is on the phone.

CHAIR HOCHSCHILD: Mr. Beihn? No? Okay. All right. Vice Chair Scott or is there any public comment on this? Thank you. Vice Chair Scott?

VICE CHAIR SCOTT: All right. Well Christie provided a thorough and excellent summary of Mr. Bean and his qualifications. We are looking forward to working with him on the important work that the DACAG carries out. So if there are no questions I will move approval of Item 4.

CHAIR HOCHSCHILD: Okay, moved by Vice Chair Scott. Is there a second?

COMMISSIONER DOUGLAS: All right. I am about to second. I just wanted to add that I'm excited by supporting him. I think that Mr. Beihn has a great
background that can really support the work of the Advisory Troup. And I'm looking forward to working with him as our Lead on tribal outreach. I think his voice will be very valuable, especially with some of the experience he brings from tribal programs.

So I second.

CHAIR HOCHSCHILD: Okay. All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.


MS. RAITT: Good morning, Commissioners. Staff is requesting that you adopt the 2019 Integrated Energy Policy Report, or the 2019 IEPR for short. I'm Heather Raitt, the Assistant Executive Director for Policy Development. The Energy Commission prepares an IEPR every two years with updates in alternate years to provide energy policy recommendations to the Governor and Legislature.

Under Vice Chair Scott's leadership, the 2019 IEPR draws on information gleaned from 25 workshops and webinars. The draft was posted on November 8th, 2019, with a request for public comments by November 27th. After careful consideration of the comments, the final version was posted on January 31st, with a second opportunity for
comments. An errata reflecting updates and edits in response to comments was posted yesterday and Commissioners, you have a copy of the errata, and there are copies available at the entrance to the hearing room.

On a very high level, the IEPR continues to focus on transforming California’s energy system to reduce greenhouse gas emissions and making sure that low-income and disadvantaged communities share in the benefits of a clean energy future.

California met its 2020 greenhouse gas reduction goal four years ahead of schedule with the electricity sector leading the way. In 2017, greenhouse gas emissions in the electricity sector dropped to more than 40 percent below 1990 levels, helping to ensure the state is on its way to achieving the 2030 statewide GHG reduction target set by Senate Bill 32.

California’s portfolio of resources has significantly changed over the last decade with natural gas generation declining by about 22 percent and renewable generation, including rooftop solar, more than doubling.

For the near-term, strategically located natural gas generation will continue to play a key role in integrating renewable resources and ensuring reliability. Currently, natural gas power plants provide 75 percent of the flexible capacity available to meet system needs.
The Energy Commission, the California Air Resources Board and the California Public Utilities Commission have initiated a collaborative effort to implement SB 100, which will set the framework to further decarbonize the state's electricity sector to become 100 percent zero carbon by 2045.

California's building stock accounts for almost a quarter of statewide greenhouse emissions, including fossil fuel consumed onsite such as gas or propane for heating and electricity consumption such as for lighting, appliances and cooling. Decarbonizing the building sector requires clean supply, deep energy efficiency improvements, and demand flexibility.

Traditional energy efficiency programs need to evolve and focus more directly on energy equity and market transformation efforts related to low-carbon technologies, whether within electric or gas end-uses or in support of fuel substitution.

To reduce greenhouse gas emissions in buildings, options include making gas-powered products more efficient, electrifying end uses previously served by natural gas and switching to low-greenhouse gas fuel sources, such as renewable natural gas.

Load flexibility can help system operators manage steep load ramps, such as in the evening when load remains
high and the sun sets. Flexibility will also reduce greenhouse gas emissions by helping us maximize the use of renewable energy and avoid using electricity when it has high carbon content.

Although the state has reduced greenhouse gas emissions overall, emissions from transportation increased six percent from 2013 to 2017. Transportation emissions account for roughly 50 percent of in-state greenhouse emissions when including emissions from refineries.

A statewide shift from the use of vehicles that run on fossil fuels to those that run on electricity, whether in the form of battery-electric vehicles, plug-in hybrid electric vehicles, or fuel cell electric vehicles, is essential for reducing emissions.

California leads the nation in ZEV deployment, with over 650,000 battery electric vehicles and plug-in hybrid electric vehicles sold as of September 2019 or roughly half the national total.

The refueling infrastructure must grow dramatically to support California's ZEV goals. The CEC will complete its first charging infrastructure assessment by the end of 2020. The CEC is also updating the state's Vehicle Grid Integration Roadmap, which will identify steps to implement technologies that can lower costs for plug-in electric vehicle drivers, recharging station owners, and
utility customers in general.

Trends in autonomous vehicles and mobility as a service are also transformative and require further consideration in planning efforts.

State and local agencies have made good progress to advance energy equity in disadvantaged and low-income communities. For example, the EPIC program invested about 31 percent of its technology demonstration and deployment funds to projects in disadvantaged communities and an additional 34 percent to projects in low-income communities.

California must remain committed to advancing energy equity to ensure that low-income and disadvantaged communities, as well as tribal and rural communities, reap the benefits of a transformed clean energy future.

Other areas for further work include developing attainable opportunities to finance energy upgrades, developing one-stop shops to increase access to clean technologies, advancing retrofits in low-income multifamily housing, training and dedicating staff to community outreach, and providing direct support to community based organizations.

The recommendations to advance energy equity will ensure that the state continues to implement the spirit of SB 350 while working to achieve a clean energy future.
The state's planning efforts must reflect and account for rapid changes in energy markets such as the growth of solar energy storage and zero emission vehicles as well as climate change impacts on supply and demand.

California's planning efforts continue to evolve as historically silent sectors such as buildings, electricity, and transportation are becoming increasingly intertwined.

The CEC is conducting critical research to identify strategies, analytics, and technological solutions to help plan for and achieve our energy and climate goals.

In light of climate change policies and energy reliability challenges, the state must develop strategies for the replacement of aging natural gas infrastructure in Southern California.

Energy reliability in Southern California remains challenging mainly due to breakdowns in the region's aging natural gas infrastructure. The Energy Commission, CPUC, the California ISO, and Los Angeles Department of Water and Power continue to monitor the situation and implement solutions.

The forecasts for electricity and natural gas demand inform planning of resource procurement and transmission investments in the CPUC's Integrated Resource Planning process and the California Independent System Operator's Transmission Planning Process. In addition, the
CEC provides monthly peak demand forecasts in coordination with the California ISO and the CPUC for evaluating resource adequacy.

Since 2013, the Energy Commission, the CPUC, and the California ISO have worked closely together to align their processes, using a common forecast to the extent possible for their respective planning purposes. The Energy Commission adopted a new 10-year electricity and natural gas demand forecast at the January 22nd business meeting. The 2019 mid baseline forecast shows about a 4 percent lower system peak and 7 percent lower electricity sales by 2030 than previously forecast. This is largely as result of increased PV adoption, projected electricity rate increases, new savings from building and appliance standards, and slower economic and demographic growth.

The transportation forecast aims to capture changes in consumer preferences influenced by clean vehicle policies, technology investments, and global market pressures. In the mid-demand case, gasoline consumption is forecasted to decrease, while electricity and natural gas consumed for transportation increase through 2030. The growth in electric consumption is mostly a result of growth in light-duty vehicle electrification, while the growth in natural gas consumption reflects increased fuel diversification in trucks and buses.
The forecast results in between 3.7 million and 4.4 million light-duty ZEVs on the road in the mid and high cases in 2030. In the aggressive and bookend cases designed to reflect the most optimistic scenarios, the light-duty ZEV stock is 5.2 million and 5.5 million, respectively.

The mid demand case forecasts more than 78,000 medium-duty and heavy-duty ZEVs in 2030. The high demand case forecasts almost 120,000 medium and heavy-duty ZEVs by 2030.

The Energy Commission's ongoing investments in research and development are critical tools for adapting to the changing climate and reaching carbon neutrality in a resilient and cost-effective manner.

Efforts to protect safety and increase resiliency have taken on renewed urgency as planned power shutoffs intended to protect public safety during extreme wildfire risk were used in unprecedented levels in October 2019.

Climate science must be actionable on a local level, and the state must prioritize research and actions that support climate-resilience in California's communities that are most vulnerable to climate change. Planning for the effects of climate change in the energy sector, identifying pathways to achieve deep decarbonization of energy use, and developing innovative solutions must be
rooted in science-based understanding.

So I'd like to conclude by saying that California's leadership continues to be critical to achieve a clean energy future. And the recommendations in the IEPR will help us meet our climate and energy goals.

That concludes my presentation. Again, staff requests that you adopt the 2019 IEPR, incorporating the changes detailed in the errata. Thank you.

CHAIR HOCHSCHILD: Great. Thank you, Heather, and thank you to Vice Chair Scott and Commissioner McAllister for all your work on this, this year. It is a lot of work. It is a lot of time. It's a lot of workshops. It's a lot of document reviews and it's a big additional job on top of what you're all do every day, so I just want to acknowledge that. And, Heather, thank you for keeping the trains running on this document over all these years.

I didn't get any blue cards, but is there anyone in the room or on the phone wishing to make a public comment? If not, let's turn it over to Vice Chair Scott.

VICE CHAIR SCOTT: Okay. Wow. It's an exciting morning. Thank you, Heather, so much for your excellent presentation. As you all know the development of our IEPR is always a very public and transparent process. And I want to note that we appreciate all the stakeholder and
public input that we received. As Heather mentioned, we held 25 workshops and webinars to get the information that fed into the 2019 IEPR. And we had public comment periods following the posting of -- actually public comment periods following the workshops, but also the posting of both the draft and the final. So we appreciate the comments that we received from everyone. We carefully considered those comments and made revisions in response to those comments where we felt it was appropriate.

I think these themes that we talked about in the IEPR this year are really big themes. A lot of challenging topics and one of which was front and center is how we transition to a decarbonized energy system in an equitable way.

And we recognize that there are multiple pathways for how to get there. So what we really tried to do with this year's IEPR was spend some time being deliberate and measured and hearing from experts all around this space about which pathways they think are the best ones, what combinations should the state be using? How can we get where we need to go. And so we really spent some time digging into that and exploring that area.

I wanted to highlight also what Heather said on equity. It was a theme of course throughout the IEPR this year, but we also took the opportunity to really dig in and
assess the progress that has been made to date after SB 350 was put forward. And a lot of what we talked about during that workshop, which was kind of a marathon, and had a lot of really good information, each one of the panels probably could have been its whole own day or whole own week of information. But this all tied back to the SB 350 Barriers Study. And let's you see the progress that the state and all the agencies have made working together.

And as Heather mentioned what we want to do is ensure that the state continues to implement the spirit of SB 350 while we're working to achieve the 100 percent clean energy future and really make sure that all Californians are engaged and involved in the transition.

I also wanted to mention a little bit about the 10-year demand forecast that we did of course this year. And so we always do in the odd years for the IEPR.

And I want to commend our Energy Assessments Division for the excellent work that they did on that. Because as our energy system continues to evolve there's a number of new complexities that are added to the forecast. And our team is doing a great job keeping up with that.

There's a lot of big data. There's a lot of regional data. There's a lot of local data. Technologies are changing. Everything is moving really quickly. And staying on top of that to help forecast for the state is an important job and
they do a great job.

They also work really collaboratively with our sister agencies. And they do this all in a robust and transparent public process. So I wanted to call some attention to that.

And then I kind of want to transition into the thank yous for folks. So bear with me. There were 25 workshops. There's a ton of work that went on. Lots of staff helped put this together. We had sister agencies come in. I really appreciate all of our sister agencies for lending their expertise both from the dais and also in the presentations and all of the experts who helped us and participated in the workshops, provided comments, participated on panels. This is how we get a lot of great information. And it is a lot of fun for me to hear from experts from all around the world, all around the state, on these cutting edge topics in these workshops. It's just what you're always learning something new. And I think that's something really fantastic about the Integrated Energy Policy Report.

So let me start by thanking also our IEPR team, so Heather Raitt, Stephanie Bailey, Raquel Kravitz, Denise Costa and Harrison Reynolds. These guys do an amazing job every day. They run these workshops. They get the notices out. They make sure all the panelists have everything that
the need. And it just goes smooth all of the time. And it's because they put a lot of dedicated thoughtful hard
work into our running that. And so I just want to say how much I appreciate the fantastic work that you all do every
day.

I want to thank Commissioner McAllister who is my Lead on this year's IEPR. And he really did a lot of
digging into the forecasting work and also his team, Brian Early and Fritz Foo. You guys have all been really
terrific partners and it was a lot of fun to work with you on this year's IEPR.

There a lot of folks who took the lead on the chapters. So I want to say thank you to Melissa Jones and my Advisor, Linda Barrera, who worked on the electricity chapter, to Jennifer Campania, Lana Wong and their team for the expertise on the natural gas sector and the challenges related to Southern California reliability. To Kristy Chew for her continued leadership on a number of the Commission's equity efforts. To Nick Fugate, Cary Garcia, Heidi Javanbakht for their great work on the demand forecast and transportation forecast; Michael Kenney and Heriberto Rosales on the building decarbonization and energy efficiency; Charles Smith and his longstanding leadership here at the Energy Commission in the transportation space; Susan Wilhelm, for her expertise on
climate science and the adaptation work here at the Energy Commission.

And I can't say thank you to everybody who's on this list, but please do take a look at the acknowledgements page of our IEPR. There's a lot of folks who worked really hard to help pull this together. And I want to acknowledge them and the terrific work that they did as well.

And then finally to my fellow Commissioners, it's always great to work with you on this as well. And I appreciate your unique and invaluable set of background and experiences that really helped contribute to make the IEPR as robust a document as it can be. And so with that, I do want to say a hearty thank you and turn it to others for comments.

CHAIR HOCHSCHILD: Thank you Madam Vice Chair. Commissioner McAllister?

COMMISSIONER MCALLISTER: Yeah, I'm so glad you got the thank yous, because I would have missed somebody for sure. And I think you did a better job that I would. So thank you very much.

And I wanted to just say thank you to Vice Chair Scott for leading the IEPR this year. It's really been a pleasure to work with you on this and I've tried to surgical with my involvement. So you covered the whole you...
know everything under the umbrella. And then I feel like
I'm forecasting and buildings and some of the other SoCal
reliability. I really tried to focus my efforts, so thanks
for creating a space for that.

I think John Geesman still has the record of
number of workshops though. I think it's up in the
sixties. I don't know who was here before but he -- and
actually it kind of is emblematic, I think he really liked
the IEPR. And it sorts of gets this bum rap like "Oh, my
gosh. It's so much work!" I mean we put so much pressure
on staff and Heather and your team, you know.

CHAIR HOCHSCHILD: I hope that's one record we
never break in doing 60 workshops.

COMMISSIONER MCALLISTER: But it sort of gets
this workshop purgatory kind of brand, but it's actually,
in my view, it's just one of the huge upsides of being at
the Commission is that we get to keep sharp. We get all
these exposures to the leading edge of these discussions.
And we get the convening workshops. We have convening
power. We get good people in the room. And good things
happen.

And so anything we're talking about for all of
us. And so it's really a pleasure to be in the room with
you and my colleagues and all of the stakeholders on any
given topic to actually learn and get up to date and make
sure that our policies reflect the leading edge of thought. So that's really one of the main reasons we do or at least that I really enjoy doing the IEPR. And I think our authority back in the '70s you know (indecipherable) kind of what it laid out. So that's what we're supposed to be doing.

So I wanted to assure everyone that we do, just as Vice Chair Scott said, we do look at every comment and consider it and so that is just a very, very robust process. And staff goes through them with a fine tooth comb at every round and the document reflects that.

And then just a few topics I want just pass some general thank yous about. So buildings, that team, buildings and building decarbonization, really I want to thank all the stakeholders for their contributions there.

The forecasting team deserves another plaudit, I think. Both the Energy Assessments Division, Steve, and his team, everybody that's involved in the forecast. I think just acknowledging the joint effort that we go through with our sister agencies and the utilities and everyone inform the forecast and iterate and again make sure that it's fully up to date. And we agree on the vast majority of the issues, but those are -- every time we have to work through a lot of detail.

In particular, I think, as the methodology, Vice
Chair Scott alluded to this as well, is the methodology as data it gets more plentiful. And as the issues get more complex we have to wrestle with and as the energy systems get more nodal and more complex, our methodology has to match that for the forecast. And we want to go down and be able to forecast increasingly toward the demand side. It's a lot more data. It's a lot of analytical challenge.

And so rising to that channel just something that the Assessments Division is really doing and targeting big things in the future as well. So I'm very optimistic about that.

On the SoCal Reliability Chapter, I want to just thank our colleagues largely at the PUC as well as the staff here at the Energy Commission. They're complex topics and a lot goes into the process there to get to where the chapter ends up. So I wanted to just thank staff for helping facilitate that conversation.

And then all the natural gas stakeholders, you know that chapter and the work we did this round on natural gas. I think there's lots of different opinions about natural gas. It's a bit of a thorny issue. And I think everybody coming to the table to put their cards down and kind of have a discussion is really important.

There are themes going forward in all of these topics that I'm talking about that future IEPRs will pick
up and have to pick up. And so I think integrating those conversations will continue to be a challenge, but I think our process can really capture that and manage it nicely.

So anyway, those are the comments I had on that.

I want to again thank Vice Chair Scott for all your leadership and keeping everything on track and working with staff really every day on it. So thanks.

CHAIR HOCHSCHILD: Any other comments from the Commissioners?

COMMISSIONER DOUGLAS: So briefly I also wanted to thank Vice Chair Scott, Commissioner McAllister, the staff team, and the interagency team. I had the opportunity to take part in a number of the workshops we had for IEPR. I probably focused most on the equity workshops and chapter climate change adaptation, the natural gas assessment chapter, which had a lot of policy issues to sift through.

And I just also wanted to say I really value the process. I really value people coming forward with their ideas. The IEPR is a chance for us to take a really forward looking perspective on the challenges and the opportunities facing us. And I think we did that here. And I think there's a lot here to build on, so thank you.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Yes. I'll reiterate my
thanks and how impressed that 25 -- that actually sounds
like a lot of workshops, 25. So and as the newest member I
just want to say that I was involved in reviewing IEPRs
like 12 years ago when I worked at the Union of Concerned
Scientists. And you may feel like maybe it's a groundhog
day every two years I think to do this monumental job. But
I've got to say it was notable reading through the
difference 12 years ago compared to today.

And so actually it helps to have this like
longer-term perspective on the IEPRs when you see how much
the IEPRs have changed to reflect California's increased
commitment to climate and clean energy. I mean profoundly
transformational. And I thought about how this is really
setting the course for the nation. I mean I think the
nation is behind us is most cases.

But in terms of this, how do we stimulate a clean
energy economy? How do we create jobs here in California
that are good and durable? As we clean up the grid, clean
up our transportation system, clean up buildings and the
opportunity for us to have this future where everybody
benefits is right before us.

And I think the IEPR with its nerdy hundreds of
pages actually emblematic of that, so just kudos to you all
and to the team and to Heather and to everybody who was
involved in this.
And I want to build on this idea that we're always improving our analytical capabilities to be able to address these changing conditions. And as Heather outlined in transportation, there's all these transformational changes. We're trying to figure out with the EAD what does that look like in terms of our analysis. And increasingly how do we analyze what it means if we do EV charging correctly and what does it mean if we do EV charging incorrectly to the grid and to our demand forecast. And as all these thing start coming together this is a great -- the IEPR is the place where we get to sink our teeth into these thorny issues. And really wrestle analytically and identify what are the policies we need to get to the end game that we all want?

So that's all I have to say. So thank you.

CHAIR HOCHSCHILD: Thank you, Commissioner. All right, is there a motion for Item 5?

VICE CHAIR SCOTT: I'll move approval of Item 5 with the errata.

COMMISSIONER MCALLISTER: I will second.

CHAIR HOCHSCHILD: All right. All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.
Let's move on to Item 6. Before we take that up, I just wanted to make a few brief comments on that. We're hearing today from a number of local governments about their proposed energy codes.

I just want to be clear. The California Energy Commission, as an agency, we fully support and welcome and encourage local government leadership to decarbonize the building sector. It's been absolutely essential. In fact, Governor Newsom, when he was the Mayor of San Francisco, convened an event called World Environment Day where we had the mayors of the 100 biggest cities in the world come together, in San Francisco, to sign urban environmental accords with each other.

We are in today an urban society, both here in the United States and globally. In fact the trend, population-wise, continues toward urban areas. And so leadership at the local level, particularly in cities is essential.

However, I want to be clear that the responsibility of the Energy Commission here is highly, highly prescribed. So we are basically looking at two things. Did the proposed code -- does it violate Title 1024 or is it actually stronger than our state energy code? And did the local government consider cost? And if the answer to those two questions is yes, the policy gets
approved. That's been how we've been doing this as it will be going forward. We've approved over 100 Reach Codes from local governments since 2000. And as I said we want to see more of that, but the venue for debating the specifics of the policies is not at the Energy Commission. It's at the local process, local hearings of each of these local governments.

I just want to make that clear, because I think the volume of these has been increasing. And I think it's worth just noting what our scope of responsibilities is, so with that let's go take up Item 6.

ITEM 6:

MS. DROZDOWICZ: Good morning Chair and Commissioners. The California Public Resources Code requires locally adopted building energy standards to result in a reduction of energy consumption levels, compared to the requirements in the California Energy Code.

As a consequence, in order for a local standard to be enforceable, the local jurisdiction must file its determination that its standards are cost-effective with the CEC. And the CEC must find that the local standards will require a reduction of energy consumption levels compared to the statewide Energy Code.

Nine jurisdictions have submitted applications for Commission consideration at this Business Meeting.
They are the cities of Berkeley, Brisbane, Healdsburg, Milpitas, Mountain View, Palo Alto, Santa Rosa, Windsor, and the Town of Los Gatos.

Among them, four jurisdictions require that new low-rise residential construction be all-electric. They are Santa Rosa, Windsor, Palo Alto and Los Gatos. One jurisdiction, Mountain View, goes further and requires that all new construction be all-electric.

Four jurisdictions require that new construction is "electric preferred," with higher efficiency requirements for mixed fuel buildings, as well as pre-wiring for future replacement of any gas equipment with electric. They are Berkeley, Milpitas, Healdsburg, and Brisbane. One jurisdiction, Palo Alto, requires electric preferred for all buildings other than low-rise residential, pairing it to their requirement that low-rise residential construction be all-electric.

Six jurisdictions require solar photovoltaic systems on buildings not subject to the 2019 Energy Code photovoltaic requirements. They are Santa Rosa, Berkeley, Mountain View, Milpitas, Palo Alto and Brisbane. Two of these, Brisbane and Milpitas, allow Solar Thermal Hot Water to be installed instead of PV.

Some of the adopted local ordinances also include provisions that are energy related, but not subject to CEC...
approval, which I mention only for completeness. Berkeley, Mountain View and Milpitas include provisions for electric vehicle charging infrastructure. Santa Rosa and Los Gatos include pre-wiring provisions for battery storage systems. And Berkeley and Mountain View also include green building provisions unrelated to energy use or efficiency.

Staff posted the complete applications, including the local ordinances and adopted cost effectiveness analysis, on the CEC's website under Docket 19-BSTD-06 for either a mandatory 60-day public review, and that was for ordinances posted in 2019, or a 15-day public review for ordinances posted after January 1st of this year.

The following public comments were received before the close of the comment period. The Western Propane Gas Association urged deployment of all clean energy sources to meet the challenge of climate change and decarbonization. PG&E, provided letters of support for applications from the cities of Berkley, Brisbane, Healdsburg, Los Gatos and Milpitos, Mountain View and Windsor. We also had letters of support from over 20 individuals and several nonprofits.

The law firm of Miller, Starr, Rigalia requested that the CEC deny the applications of the cities of Windsor and Santa Rosa based on pending legal actions they filed against those cities. These and other comments received
were not germane to the application process pursuant to Public Resources Code 25402.1(h)2.

Staff has reviewed the applications to determine whether the local ordinances will result in the reduction of energy consumption levels permitted by the 2019 Energy Code, per the requirements in the Public Resources Code. Staff found that the standards will reduce the amount of energy consumed, and will not lead to increases in energy consumption inconsistent with state law. Staff further confirmed that each of the jurisdictions publicly adopted a finding of cost effectiveness for the standard.

Because staff has found that the applications meet all the requirements of the Public Resources Code, staff recommends approving the enforcement of the ordinances. I am available to answer any questions that you might have. Thank you.

CHAIR HOCHSCHILD: Great. Thank you.

Let's go to public comment. Why don't we start with Daniel Barad from the Sierra Club, California.

MR. BARAD: Good morning, Daniel Barad here on behalf of Sierra Club California representing 13 local chapter in California, half a million members and supporters throughout the state.

I'm here to express our strong support for the Energy Commission's approval of these local ordinances or
Reach Codes today.

These Reach Codes are the result of statewide cost effectiveness analysis and an extensive stakeholder engagement process. Most if not all of the Reach Codes before the Commission today were unanimously approved by city councils and were broadly supported by community members.

This local democratic process is leading the way for the state to implement decarbonization solutions that are critical in the fight against climate change. These Reach Codes are not just a measure to reduce our GHG emissions, they will also lower the cost of new construction and reduce indoor and outdoor air pollution and their associated health and economic impacts.

These cities are providing bold leadership that is necessary to combat climate change, clean the air and improve housing and energy affordability.

Again, Sierra Club California supports the Commission's approval of these Reach Codes and urges the Commission to build upon this local leadership in the 2022 code cycle. Thank you.

CHAIR HOCHSCHILD: Great, thank you.

Next let's just go to Kelly Cunningham from PG&E.

MS. CUNNINGHAM: Just here to public reiterate our support. PG&E strongly supports California's clean air
goals and is proud to serve electric and natural gas to the jurisdictions we serve.

PG&E does welcome the opportunity to avoid investments in new gas assets that later might prove underutilized as local governments and the state work together to realize long-term decarbonization objectives. With this in mind, PG&E supports local government policies that promote all electric new construction when it is cost effective.

Beyond new construction, PG&E believes a multifaceted approach is needed to cost effectively achieve California's broader economy-wide long-term GHG reduction objectives. And this includes transportation and building electrification as well as decarbonizing the gas system with renewable natural gas and hydrogen.

We thank you for the opportunity to voice support for all the ordinances up for approval today, both those we serve and those we support through our Reach Codes Technical Assistance Program, which is a statewide effort non-inclusive. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go on to Pierre Delforge from NRDC.

MR. DELFORGE: Chair and Commissioners, good morning, Pierre Delforge from the Natural Resources Defense Council. The nine local building codes in front of you
today are an example of California policy at its best; local governments exercising their legal authority to protect their constituents from the climate, health and safety and economic impact of fossil fuels.

In doing so they are developing the market for clean buildings and heating equipment paving the way for expanding clean and affordable new construction to all Californians for future statewide policies.

To date, 28 local governments in California have exercised this authority on this building cycle or this building code from Carlsbad, in San Diego County; Santa Monica in LA; San Jose in the Bay Area and the City of Davis next door. They've done so through extensive stakeholder processes to determine that these standards will make buildings more affordable to build and to live in.

This local democratic process is setting an example for the state and the nation to fight climate change at a time when wild fires in Australia, in the Amazon, and in our own state are stark reminders of the kind of crisis, which is upon us and which requires urgent and bold leadership. These 90 days are providing this bold leadership.

For these reasons we urge approval. Thank you.

CHAIR HOCHSCHILD: Thank you.
Let's move on to Martha Helak from SMUD.

MS. HELAK: Thank you. Thanks for the opportunity to comment today. I just wanted to say that SMUD strongly supports the state's decarbonization efforts to reduce greenhouse gas emissions by promoting building electrification and increasing the development of renewable resources.

As the Commission knows, in December, 2019, you approved our IRP that identified the need for significant amount of additional renewable resources and sets and accelerated goal for net zero by 2040, five years ahead of SB 100. Utilities like SMUD are decarbonizing buildings through clean electricity. And building electrification is crucial to meeting California's pioneering greenhouse gas and carbon reduction goals.

These Reach Codes presented today are absolutely a step in the right direction. They are a great tool for utilities and consumers to leverage to help meet California's goals. We also feel that this will present an opportunity for contractors and consumers to start getting comfortable with all electric technology.

So SMUD encourages the Commission to approve these Reach Codes and to keep inspiring the positive moment we're building here today. Thank you.

CHAIR HOCHSCHILD: Thank you.
Let's move on to Steve Uhler.

MR. UHLER: My name is Steve Uhler, that's U-h-l-e-r. The CBECC program, I'm wondering what kind of modifications are going to be required in order to implement these standards. I take it that you've read all my comments related to this subject matter.

I'm really interested in a quoted statement in the finding and resolution that didn't show up until Friday evening, this last Friday, that talks about substantial change in factual. Yet it doesn't site any law that that's about. I'd like to know what that is about.

The findings that the Commission has found, did they ensure that the proper version of CBECC was used? Did they ensure that CBECC doesn't have any critical faults, particularly when it comes to going all electric.

As you just voted for the IEPR, I see that you agree that electricity has carbon in it. And that carbon is from a fossil fuel being burnt and there's energy and there's calculation that would show that all-electric homes for quite a while into the future will actually use more energy, because they are -- when you turn on that stove at dinner time you're firing up most likely a peaker plant.

And that's in that consideration.

So also I have requested, and I have requested multiple times, the certification process for the CBECC...
program. On Thursday I received a link to a code
management directory that's on the web. And after going
through there I found things like missing standby losses
for things like small electric water heaters.

I also didn't find any flow chart for any of the
software. So I have a concern that the folks that are
using this software, the Commission has really delivered
something that allows them to calculate what the energy use
will be when these codes are in place.

And then also what is the effect of 25402.2,
because you can prohibit somebody from doing any of this
stuff. These would be a building standard not otherwise in
statute, so are you going to follow through with 25402.2?

Thanks.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Kevin Messner from the
Association of Home Appliance Manufacturers.

MR. MESSNER: Thanks. Good morning, Kevin
Messner with the Association of Home Appliance
Manufacturers. I just wanted to comment on we represent
products in the home that are dryers and cook tops in the
(indiscernible) space. So what we make both electric --
our members make both electric and gas appliances. But I
just this larger issue, I just wanted to express caution in
the sense there's cooking, gas cooking, there is a lot of
interest in ability to cook using a gas cook top.

And also for dryers, for the larger dryers, gas
drying can be more efficient the larger you get and the
need for that energy. And also cycle times also enter into
it, which has been an issue that's come out larger and
federally as well, cycle times.

And also that there are potentially alternatives
beyond -- if natural gas is the worry, there are other
alternatives that could come down the pike, so you could
plumb a house and still use other potential alternatives in
the future. So I just wanted to raise those.

Like I say our members make both appliances, so
they'll sell them both. But there are consumer interests
in having a choice and the ability to use both. So thank
you.

CHAIR HOCHSCHILD: Thank you.

Do we have any public comment on the phone? All
right, let's move on. Commissioner McAllister?

I'm sorry. Bob Raymer? I didn't have your card,
yeah go ahead.

MR. RAYMER: My apologies. I didn't put in a
blue card. But I'm Bob Raymer with the California Building
Industry Association. And while we don't have a position
on the local ordinances before you today, I wanted to bring
to your attention an odd situation that's popped up in just
the last two days.

Whether it's by local mandate or through a variety of local initiatives, the building industry has always been very interested in trying to acquire a variety of incentives, be them regulatory or financial economic incentives to help encourage the building industry to go in certain directions. And over the years the new solar home program, the PV compliance credit, now the battery storage credit, it helps the industry sort of move in directions at a relatively balanced speed. And they've had enormously great results.

Oddly enough, as you look at all these ordinances though, the common theme is electrification. We understand that the state's going to that. And we want to be a party to that.

Over the last two days in two separate venues I've come across an instance where I'm hearing that local jurisdictions are requiring gas line extensions to homes that will be all electric. And I'm not familiar with statute that requires that. I'm not familiar with the PUC whether it be Rule 15, 15.1 or 16. I have no idea why this is. We're going to be looking into it, but I suspect we're probably going to be coming to the CEC and the PUC for assistance in this.

But as you can imagine not having to put in the
gas line extension will save us probably about $1,500 to
$2,000 a house in large production housing communities. So
with that I just want to put that on your radar, but we're
going to be following up on that. Thank you very much.

CHAIR HOCHSCHILD: Great. Thank you so much,
appreciate it.

Commissioner McAllister?

COMMISSIONER McALLISTER: Thanks, Mr. Raymer.

So I guess I wanted to actually just make a
couple of brief comments and actually first ask staff a
question. Because this issue of diminution of energy
consumption, I think maybe Peter you could sort of walk us
through what that looks like in these cases of all
electrification.

MR. STRAIT: Sure, so the Energy Commission has
previously found that switching from a depletable resource
to a renewable resource is conservation of our depletable
energy reserves, of like our strategic gas reserves and
what have you.

In that respect, any load that you can shift from
being a non-renewable mode to a renewable load saves
energy. And so this electrification means these resources
can now first leverage the renewable portfolio that we have
in California where nearly half, more than half depending
on time of day, of our energy is coming from renewable
sources just by being connected to the grid. And it enables that building to make use of onsite renewable technologies.

So for that reason we find that these electrification ordinances do lead to energy savings. They are -- So on that bases we were able to find that that minimum bar of diminution is met.

COMMISSIONER MCALLISTER: And maybe there's an example regarding the electric ready homes, right? That sort of then some pretty easy assumptions you can kind of kind of get to a future where that diminution has actually happened.

MR. STRAIT: Correct. In fact I would say electric ready pairs very nicely with solar ready. At the moment that you want to install solar panels, if you still have gas equipment and now you have a solar resource --

COMMISSIONER MCALLISTER: I'm, sorry. I meant to say solar ready, sorry.

MR. STRAIT: Oh sorry. So yes, we adopted solar ready requirements many years ago to enable that to make houses more likely to be able to install solar. A certain percentage of those will eventually install solar where they otherwise wouldn't have because they don't have the right roof space. So that too we can project and say this is going to lead to some non-zero amount of savings from
people being able to do this.

And as we look at electric ready requirements
that some of these are electric preferred or electric
ready, certainly those go hand-in-hand just to say when
you've got the solar resource onsite you can impair that to
electric equipment.

Electrification means now that you have electric
equipment there you can easily pair that to onsite solar
and get a lot of benefit out of it.

COMMISSIONER MCALLISTER: Yeah, great. Okay, so
I just wanted to put it out there, so thanks for that more
detailed explanation. And then I guess the only other
thing is that as in the past, and I was not at the business
meeting where we adopted a bunch of these a couple of
months ago, but we're not in business of second guessing
the motivations of the local governments. They bring these
applications. We check the boxes and if legal has anything
they want to further explain about that you'd be more than
welcome.

But in terms of having made a finding that it is
cost effective and are showing on the energy front that it
actually is a diminution, that's really all we have to do.
And you know, local government leadership, we know how
important it is and so we want to support their actions and
not sort of -- yeah, and as long as they comport with the
state law and regulations.

So is there anything else to be said there? No.

It's okay. Good.

CHAIR HOCHSCHILD: Any other credits from other Commissioners on this item. If not do we have a motion on Item 6?

COMMISSIONER MCALLISTER: I move this item.

CHAIR HOCHSCHILD: Is there a second?

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: All in favor say eye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.

Let's move on to Item 7, Association of Home Appliance Manufacturers Kitchen Range Hood Directory and Program Approval

MR. STRAIT: This item is actually mine, so I'll go ahead and get started.

First, good morning Chair and Commissioners,

ASHRAE Standard 62.2, titled "Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings," requires that product performance for kitchen range hoods be verified using a rating program and directory of product listings overseen by the Home Ventilating Institute or HVI.

The Energy Code incorporates ASHRAE 62.2 by reference, and
as a consequence includes identical requirements to verify kitchen range hood product data using the HVI directory.

Provisions in the California Administrative Code, that is Title 24, Part 1, that pertain to the Energy Code include a provision in Section 10-109 stating that, and I quote, "The Commission may authorize alternative procedures or protocols that demonstrate compliance with Part 6."

The Association of Home Appliance Manufacturers, or AHAM has created a product testing and listing program for kitchen range hoods under their Verifide program, with the goal of providing the same service as is provided by the HVI Certified Rating Program under ASHRAE Standard 62.2. AHAM is seeking approval under section 10-109 for the 2019 code cycle to allow use of its directory for demonstrating compliance.

AHAM's initial application was reviewed by staff and posted for public review on November 4th, 2019. Staff provided commentary and feedback on the application and also supplied AHAM with the public commentary received during that public review period. AHAM revised their application to account for staff and public feedback, and their revised application was posted for additional public comment on January 31st, 2020. Staff is now bringing the revised application before the Commission for approval.

Staff finds that it is reasonable to expect that
following the AHAM procedures would lead to the same
results as the ASHRAE Standard 62.2, noting that AHAM's
application commits to obtaining accreditation to perform
all of the necessary tests.

Staff received public comments from several
manufacturers, both in support of and opposed to their
proposal. Six manufacturers and one member of the public
expressed support, and eight manufacturers and HVI
expressed opposition. The primary topics of the comments
were whether having an alternate standard would create
confusion or would create beneficial competition, and
whether additional rating capacity was needed.

Staff notes that approval of alternatives under
section 10-109 is for the 2019 Energy Code cycle. Staff is
currently tracking ASHRAE's development of amendments to
62.2 standard, including updates to rating requirements.
Staff will take up the question in the 2022 rulemaking
proceeding of whether to adopt Energy Code language
allowing an alternative to ASHRAE specifications or to
adhere to ASHRAE going forward.

Staff also notes that approval only applies to
the material brought before the Commission and not to any
subsequent changes to the program described in AHAM's
application.

Staff finds that AHAM meets the criteria
necessary for consideration by the Commission and therefore
recommends that AHAM's application materials be approved,
which would authorize use of their directory as an
alternative to use of HVI's directory under the ASHRAE
Standard 62.2 for the 2019 code cycle, provided that all of
the conditions specified in their submitted materials are
fully adhered to.

I am available to answer any questions.

CHAIR HOCHSCHILD: Great. Thank you.

We do have some public comment on this item. And
we have Kevin Messner from the Association of Home
Appliance Manufacturers to come first.

MR. MESSNER: Thank you. Good morning, I am
pleased to be here to in favor of a CEC action. So this is
a great place to be. Really, really I am pleased to have
this before you today.

I just want to make one note on some of the
manufacturers that have wrote in, in opposition, don't
manufacture range hoods.

I did want to point out that I was here almost
two years ago and when the Building Codes were approved and
mentioned the monopoly that could be created. And Peter
was there and he said we have a process if any other thing
comes up. And at that point we did not even have in mind a
possibility of doing anything. But through this process we
did the application and I truly just want to say thank you Peter, truly, really, because truly he has been honest and straightforward through this whole thing. And even came and worked on this I know when he was sick, so I mean that's above and beyond, so really thank you, Peter.

We think this is a good application. We've worked hard on it. And just really ask you to approve this and we will keep wanting to work on the other issues that are on this program, largely in the Building Code that comes next cycle. There's a lot of work that needs to be done. But I'm happy to answer any questions that you guys have or that may come up with other future commenters.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Stephen Gatz of Whirlpool.

MR. GATZ: Good morning, Steve Gatz. My name is Steve Gatz representing Whirlpool Corporation and I too am pleased to hear that the Commission is in favor of this proposal.

We strongly support AHAM as the ultimate certification body. This is not primarily an issue of existing lab capacity. It would also provide manufacturers a single source for performance standard issues across multiple product lines. Our dishwashers, refrigerators, cooking appliances and numerous others are overseen by
AHAM. They utilize consensus based policies and procedures
have existing relationships with the Department of Energy,
Energy Star, CEC obviously and global involvement with IEC
performance standards where we've already started working
to bring some of the US type requirements over to
international ones for harmonization.

I'd also like to provide some specific responses
to some of the latest HVI objections. That wasn't my
intent, but they just pretty much targeted some of us
manufacturers. While they state, as Kevin said, that it's
manufacturers their members are strongly opposed to AHAM.
We were not consulted and several other members have also
presented their support for AHAM. And most of the supports
for HVI came from members, as Kevin said without listed
range hoods.

Several members have commented how ASHRAE 62
references (indiscernible) HVI. We agree with those
comments, but they're separate clauses in the Building
Code. And HVI's not in a position to start qualifying
competitive labs. It's just an obvious conflict of
interest. The backlog that was created by HVI is currently
the pig in the python, as one referred to it, was created
because the condition that was required for California
wasn't previously required and created a whole bunch of
work load for everyone.
The reinstatement of AMCA as an alternate lab, was approved back in September of 2018. However it was purposefully omitted from many of their meetings, two general membership meetings and wasn't discussed again until June of 2019. So it definitely put us in a difficult position.

Equitable rating programs such as AHAM provide manufacturers, or allow manufacturers, to choose a certification body based upon factors they consider important such as membership costs, responsiveness and interaction with other bodies such as ASHRAE and as I mentioned the IUC.

We also support the repeal of the requirement for sound testing proposed by APTEC (phonetic) at the working speed condition that's currently in the 2019 requirements as it's not in alignment with ASHRAE 622, which recently voted to reject that. We do understand that's a separate issue. I just wanted to point out our support for that as well. Thank you.

CHAIR HOCHSCHILD: Thank you. Let's move on to Jon Schlosser from GE Appliances.

MR. SCHLOSSER: Thank you, Commissioner. This is John Schlosser of GE Appliances. I appreciate your time today. At Whirlpool, we're a manufacturer of range and ventilation products and in support of AHAM's petition.
I would like to know a couple of things initially. Our account of those manufacturers in support is a little different than Mr. Strait's. I count eight manufacturers in support of this petition, in addition to one member of the public and one third-party laboratory.

I would note that GE Appliances as well as Whirlpool and (indecipherable) have had employees as members of the board of HVI, so we do not come at this issue from an outsider track.

In addition to a component of Title 24 previously cited as 10109(h), which of course gives the Commission the ability to approve alternate verification methods, because of the concerns in particular kitchen range hoods if you go to the reference appendix of Title 24, 2019, RA3.7.4.3 specifically states that verification can be done through the HVI or I quote, "another directory of certified products performance ratings approved by the Energy Commission."

That is that issues with HVI's monopoly were considered at the time of the 2019 Title 24 and additional language was included by the Commission in this particular section, because of the Commission's good foresight in getting the (indiscernible) may occur.

I'll reserve my comments from there, but happy to take any questions or respond to any concerns.
CHAIR HOCHSCHILD: Thank you.

Any more comments in the room or on the phone? If not, let's go to Commissioner McAllister.

COMMISSIONER MCALLISTER: All right, so I appreciate, Mr. Messner, your comment to support something here at the Energy Commission. It's good to mix it up every now and then. But this is pretty straightforward. I think the commenters have laid it out pretty clearly.

I guess I would just highlight the need for consistency and harmonization and equivalences in the various steps, so we know what we're getting whatever list they're on. And so if that means continuing to work with ASHRAE or kind keeping together on that, how many mics you have in all the different issues of the test procedure, then I would just encourage staff and AHAM and stakeholders to work together to make sure that we have that equivalence. And there's no doubt, there's no favorable treatment by being on one or the other list, because that would be bad.

But other than that it's very straightforward and I would move this item.

CHAIR HOCHSCHILD: Thank you. Is there a second?

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: Second by Commissioner Douglas. All in favor say aye.
(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.

Let's move on to Item 8, Right-Energy Title 24 Residential Compliance Software.

MR. FROESS: Good morning Chair and Commissioners. My name is Larry Froess, a Senior Mechanical Engineer in the Building Standards Office and Project Manager of Compliance Software.

I'm here to ask for your approval of Wrightsoft's Right-Energy Title 24 Version 2019.1.1 software as an alternative calculation method for showing compliance with the 2019 Energy Code for newly constructed low-rise single-family residential buildings.

Staff has confirmed that the Applicant is in compliance with the requirements of the adopted Alternative Calculation Method Approval Manual.

CBECC-Res 2019 was approved in May of 2019 as the CEC's version of compliance software. And by approving Right-Energy Title 24 Version 2019.1.1, the building industry will have another choice of software with an alternative user interface to demonstrate compliance with the 2019 Energy Code.

Thank you and I'm available to answer any questions you may have.
CHAIR HOCHSCHILD: I do not see public comment on this item. Is there anyone in the room wishing to make a comment? Mr. Uhler. Yeah, go ahead.

MR. UHLER: My name is Steve Uhler, U-h-l-e-r.

I've been in search of the certification process that's required by Public Resource Code 25402.1(a). You're supposed to have a procedure, a process for certifying items such as this, not specifying, certifying.

And I, in contact with your public records attorney about this, he does state that this is not his area of expertise. So I'm wondering does the Commission have a supervising attorney for your records attorney.

The compliance manager is supposed to be certified, but nowhere in the ACM manuals, approvals and so one does it describe this process of certifying. How it's tested, how the code modules are controlled, which showed up heavily. I had one of my assistants go through this SVE, this sub version control system that the Commission appears to be using now, and came up with a number of items that are disturbing as far as knowing are you actually executing the correct code.

In the current version, 19.1, there are items that don't function. And the person who writes the tech manuals has identified, "Yeah, that's correct. They don't work." So I'm really concerned about this certification...
process. How's it's happened. This applies even over to these local codes.

I'm not seeing the kind of stuff that even a small manufacturing firm would do to do forecasting or planning or costing. Job costing is basically what I'm talking about. So I'm concerned that we're building upon a system that has not actually been tested fully. And you don't actually have Title 20, which would require Title 20 code, to certify this. It's not Title 24. This is a standard that's called out in statute.

So I've made a public record request. It hasn't been complied with. I'd really like to know what this certification process is that is required in 25402.1(a).

Thank you.

CHAIR HOCHSCHILD: Thank you.

Is there any other public comment on this item either in the room or on the phone? No?

Commissioner McAllister?

COMMISSIONER MCALLISTER: Larry, maybe you could just the process that we go through to get something on the business meeting agenda and evaluate it.

MR. FROESS: Sure. Yeah, we have the Alternative Calculation Methods Approval Manual, which is the adopted document. That specifies that the third part software vendor runs our tests. We have a --I forgot how many test
files it would be in, our expert knows. And we run the
tests through that certified -- through the proposed
software. And if the results are within a pretty fine
margin of compliance margin, then it meets our approval
requirements.

So then we post it -- we notify it through the
business meetings. And we get approved.

COMMISSIONER MCALLISTER: Yeah. Thanks.

And then going forward there's a process for I
think anybody who wants to say, "Hey, I noticed something."
They can give staff a heads up (indiscernible) --

(Overlapping colloquy.)

MR. FROESS: Yeah, (indiscernible) we have the
residential and commercial support emails. And
(indecipherable) it's been is one of the big ones for the
residential. I'm on the commercial side.

COMMISSIONER MCALLISTER: Yeah, so I just want to
reassure that there is a process in place and it's well
known, so all right.

CHAIR HOCHSCHILD: Is there a motion?

COMMISSIONER MCALLISTER: Yes, so I'll move Item
8.

CHAIR HOCHSCHILD: Is there a second?

VICE CHAIR SCOTT: Second.

CHAIR HOCHSCHILD: Second by Vice Chair Scott.
All in favor say eye.

(Ayes.)


MS. GILL: All right. Good Morning Chair and Commissioners, my name is Liz Gill. I am in the Planning and Modeling Unit in the Energy Assessments Division, and I reviewed the Glendale IRP. Today I will present the review of Glendale Water and Power's IRP and propose adopting the Executive Director Determination finding it consistent with SB 350 requirements, specifically Section 9621 of the Public Utilities code.

As a status update all 16 POUs have submitted their IRPs, 15 Executive Director determinations have been adopted. And today we bring forth the final IRP for adoption.

The next step is that the POUs are required to adopt their next IRP by January 1st, 2024. So we expect to repeat this cycle in about four years.

As reviewed in their IRPs the POUs must plan to meet the 2030 CARB-established GHG reduction targets and renewable portfolio standard requirements. Along with the
GHG reduction and renewable energy goals, staff reviewed the IRPs to ensure the POUs adequately addressed preferred resources and key planning areas, including energy efficiency and demand response, energy storage, transportation electrification, reliability, and minimizing local air pollutants with an early priority on disadvantaged communities.

So this slide provides an overview of Glendale Water and Power. Most of Glendale's customers are residential. However, most of the load is commercial, which is pretty typical. Glendale plans to fall under CARB's GHG reduction targets. They plan to reduce their GHG emissions to around 195,000 metric tons of CO2 equivalent by 2030. Part of this reduction is because Glendale stops receiving coal-powered electricity from the Intermountain Power Plant or IPP, by 2025, which will be replaced with natural gas generators.

Glendale is also planning on meeting the 60 percent RPS by 2030 through procuring additional wind and solar resources.

Between 2019 and 2030 there are several planned changes to Glendale's Resource Mix. In addition to adding new solar and wind resources and the replacement of IPP with natural gas generators Glendale will replace Grayson Power Plant Units 1 through 8, which are scheduled to
retire in 2021 and is a key resource for local reliability.

Glendale found the replacement resource mix that could meet local reliability to be local distributed energy resources and load reduction, battery storage, and natural gas-fired internal combustion engines.

However, before any internal combustion engines can be procured, the Glendale City Council is requiring Glendale to conduct another request for offers for additional zero carbon resources and to receive City Council approval.

All right, so in conclusion staff finds the Glendale IRP for the -- or staff has reviewed the Glendale IRP for the 2030 GHG reduction target, the renewable energy procurement targets along with the SB 350 requirements to address preferred and clean resources.

Based on the review, staff finds the Glendale IRP to meet the requirements of SB 350. We received no comments on the staff review paper or the Executive Director Determination.

We have representatives from Glendale Water and Power today via WebEx.

So I am requesting the CEC to adopt the Executive Director determination finding Glendale's IRP consistent with the requirements of PUC 9621. And with that thank you. I am happy to answer any questions.
CHAIR HOCHSCHILD: Thanks. I don't have any cards on this item. Are there any folks or is Glendale on the line? No? I don't have a card from them either, so let's go to Commissioner McAllister.

COMMISSIONER MCALLISTER: You said Glendale was on the WebEx or something?

MS. GILL: They said they would be attending via WebEx.

COMMISSIONER MCALLISTER: Okay.

CHAIR HOCHSCHILD: Go ahead.

COMMISSIONER MCALLISTER: Okay, so congratulations on getting to the final first round of IRPs. And you can probably not rest for four years, but at least it's a milestone and it's important. And I just have to say thanks to you, Liz and Melissa and Paul and Mark and Siva's team, everybody who has been managing this process throughout. Because it's really, if you look at the sum total of all of the IRPs from the publicly owned utilities it's a quite compelling story how intentional and how proactive they are being in getting to their goals that are in turn our goals.

So I'm really happy to be at this place and I don't see any problems with this plan. I think it's a great one and am happy to move Item 9.

CHAIR HOCHSCHILD: Item 9. Is there a second for
Item 9?

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: Commissioner Douglas seconds.

All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously.

Let's move on to Item 10, Bay Area Air Quality Management District.

MR. CAZEL: Good morning. My name is Phil Cazel from the Advanced Vehicle Infrastructure Office. And I am presenting for possible approval a contract with the Bay Area Air Quality Management District that will provide $5 million to the Energy Commission's Clean Transportation Program funding for hydrogen refueling stations under a competitive solicitation.

This $5 million is a part of the nearly $423 million allocated to California from the Volkswagen Environmental Mitigation Trust created in October 2016 as part of a class action lawsuit settlement against Volkswagen for using illegal software devices to cheat emissions tests in certain VW diesel vehicles.

The California Air Resources Board is the lead agency for implementing the use of Mitigation Trust funds in California and selected the Bay Area Air Quality
Management District to administer those funds for two of the five mitigation categories. And those are Zero-Emission Freight and Marine Projects; and Light-Duty Zero-Emission Infrastructure.

There was a $10 million allocation for light-duty infrastructure projects, to be divided evenly between electric vehicle charging stations and hydrogen refueling stations. And although these funds are administered by the Bay Area Air Quality Management District, they will be used statewide to add to the portfolio of hydrogen refueling stations funded by the Energy Commission.

Energy Commission staff will evaluate applications received for hydrogen stations and propose those highest scoring four awards to be approved at a future Business Meeting later this year.

Staff recommends approval of this proposed contract to receive and utilize the additional $5 million for anticipated hydrogen station grant awards. And this additional funding will accelerate the development of at least 100 publicly available hydrogen refueling stations authorized under Assembly Bill 8 and will increase the hydrogen refueling capacity in California to meet the projected demand for continued rollout of fuel cell electric vehicles.

Eric Brown from the California Air Resources
Board and Karen Schkolnick from the Bay Area Air Quality Management District are here today and all of us are happy to answer any questions you may have. And I think there are a couple of commenters as well. Thank you.

CHAIR HOCHSCHILD: Thank you.

Yeah, let's move first to Gia Vacin, ZEV Market Development Program Manager.

MS. VACIN: Hi. Good morning Chair and Commissioners. I am Gia Vacin. It's a hard one, yeah, the ZEV Market Development Program Manager with GO-Biz. And I'm here to express my support for this transfer of funds. Your excellent team here worked very hard to create a really strong solicitation in the last GFO-19602. And it does a really good job of balancing government and industry needs in helping to unlock scale. So I applaud the staff and leadership's effort and focus on accomplishing this.

Adding the Bay Area AQMD VW mitigation funds to these funds will help streamline funding processes and also will help maximize the impact of the mitigation funds. And it will also make things easier for applicants, which hopefully will free up more time to go out there and build more infrastructure.

It sends a positive signal to industry as well that government continues to be thoughtful in our approach.
to funding. And we're actively working together to stay aligned at the regional and state levels. So again I support the approval of this agenda item and thank you.

CHAIR HOCHSCHILD: Thank you. Let me just thank GO-Biz for all the work in transportation. You guys have been magnificent and really proactive on everything from this stuff to helping with the permit expediting of getting charging infrastructures built out and many other things. We just really appreciate all you and your team and Tyson and everyone else over there does, so thank you.

MS. VACIN: Thank you. Yeah, we're glad to do it. Thanks.

CHAIR HOCHSCHILD: Let's move on to Andrew Martinez, Staff Air Pollution Specialist with CARB.

MR. MARTINEZ: Good morning Chair and Commissioners, Staff Air Pollution Specialist on the ZEV Infrastructure Section at CARB, focusing on hydrogen infrastructure in particular.

I just want to make some quick comments this morning. CARB has been collaborating with the Energy Commission on hydrogen network planning and analysis for a number of years, especially on the infrastructure needs through the Clean Transportation Program. And that has been a very successful collaboration to date.

We want to express our support for this item,
especially as it has the potential to accelerate the build
of new fueling infrastructure to enable greater fuel cell
electric vehicle deployment and which of course is greater
ZEV deployment overall.

These funds will help support the AB 8 goals as
Phil mentioned of at least 100 stations by 2024. They'll
also help support the goal of 200 stations by 2025, per
Executive Order B-4818 and of course our broader ZEV
deployment and carbon neutrality goals.

Additional funds now can help get this new
industry closer to economies of scale and continue to
advance the possibility of ZEV adoption for a broader base
of Californians.

I do also want to note that this particular item
builds on successful collaborations, our history of
successful collaborations in the past between CARB, Energy
Commission and Bay Area Air Quality Management Districts
for ZEVs over all, but also in particular for fuel cells.
So for all those reasons we just wanted to express our
support. Thank you.

CHAIR HOCHSCHILD: Thank you. Well, with
apologies I always thought my last name was the hardest one
to pronounce, but today (indecipherable) I hope I'm not --
Karen Schkolnick, Director of Strategic Initiatives with
Bay Area Air Quality Management District. Did I say that
right?

MS. SCHKOLNICK: Hi. Good morning.

CHAIR HOCHSCHILD: Did I say that right?

MS. SCHKOLNICK: Yes, it's Schkolnick and it kind of rolls off the tongue.

Good morning. I'm with the Bay Area Air Quality Management District. And as you heard we're under contract with Air Resources Board for the implementation of the hydrogen light-duty fueling infrastructure solicitation, using Volkswagen NOX mitigation funding. And I'm just here to express our appreciation to the California Energy Commission for consideration of this proposal.

As you've heard, we really feel that it's a model for helping to make more efficient the application process and the operation for applicants and operators.

And I also just want to thank the staff on your team, specifically Jean Briones (phonetic) and Phil Cazel who you heard from earlier, for all of their work to make this happen. So thank you.

CHAIR HOCHSCHILD: So let's see, is this item, Commissioner Monahan (indecipherable).

COMMISSIONER MONAHAN: Yeah, I just want to say that just historically VW -- the fact that the California Air Resources Board was able to identify the problem, and really it took a long time for VW to admit that they had
installed the software that disabled the equipment, and
caused an increase in pollution in California and across
the entire world. And it really did change -- in some way
I feel like this changed the world in a big way.

Now VW led by Audi is really cementing their
commitment to vehicle electrification. And we're seeing
other automakers step up around the world.

I strongly support this item, because we at the
Energy Commission really have been leading, I would say the
world on how do we do infrastructure correctly. And we
want to socialize that actually. Part of the reason I went
to China was so that we could socialize that, because if
we're able -- if China moves on fuel cells, the world moves
on fuel cells. So how do we create a market globally? And
especially in our hardest to electrify of the
transportation sector, which is heavy duty.

So our solicitation now does include heavy duty,
which is particularly appropriate given VW's diesel. We
want to reduce diesel pollution generally in the state, so
this is a perfect fit for us. And glad to hear that that's
a good relationship between the Bay Area Air Quality
Management District, the Air Resources Board, GO-Biz, our
team here at the CEC with Phil and Jean and others involved
in making sure that we are doing all we can to move forward
on transportation electrification.
So I just strongly support this item.

CHAIR HOCHSCHILD: Terrific.

Yeah, Vice Chair Scott?

VICE CHAIR SCOTT: Yeah, I just wanted to echo those thoughts and say how much we appreciate the great partnership with the Bay Area Air Quality Management District on this and also with our sister state agency. That it takes a village on the hydrogen infrastructure and we certainly have one.

And I think this is just a great example of good government, right? This is us working together to leverage our dollars, to leverage our expertise, and to move forward on a goal that's an overarching goal for all of us. So I want to add my support.

CHAIR HOCHSCHILD: Great. Thank you. Would you be willing to make a motion?

VICE CHAIR SCOTT: I will move approval of Item 10.

CHAIR HOCHSCHILD: Is there a second?

COMMISSIONER DOUGLAS: I will second.

CHAIR HOCHSCHILD: All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: That motion passes unanimously. Let's move on to Item -- oh, actually Item 11 we're going to hold. So at this point what we'll do is
just skip Item 11 and let's go through as much of the rest of the agenda as we can get through.

Then we'll break for lunch at noon and we'll come back at 1:00, so let's go on to Item 12.

Is there a motion to approve the minutes?

(Off mic colloquy.)

CHAIR HOCHSCHILD: Oh excuse me. That's a good comment. Let's approve -- why don't we get the motion for -- well actually no, guys can we just do one motion for Item 12 or should we do two separate?

(Off mic colloquy.)

MS. HOUCK: You should do two separate motions.

CHAIR HOCHSCHILD: Two separates for --

COMMISSIONER DOUGLAS: All right, so I move approval of item 12a.

CHAIR HOCHSCHILD: 12a, is there a second for 12a?

VICE CHAIR SCOTT: Second.

CHAIR HOCHSCHILD: Okay, second by Vice Chair Scott. All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: And for Item 12b?

COMMISSIONER DOUGLAS: Move Item 12b.

VICE CHAIR SCOTT: Second.

CHAIR HOCHSCHILD: All in favor say aye.
(Ayes.)

CHAIR HOCHSCHILD: And Commissioner McAllister has abstained from 12b. Let's move on to Item 13. I'm sorry.

UNIDENTIFIED SPEAKER: (Indiscernible.)

CHAIR HOCHSCHILD: Pardon me. Yes, I abstained as well from 12b. Thank you. I missed that as well, so that's a 3-0 vote.

Let's move on to Item 13, Lead Commissioner Reports. Yeah, Commissioner Monahan.

COMMISSIONER MONAHAN: Well, the big news in my life I think, as you all know, is I had my Senate Rules Committee Confirmation Hearing last week and am waiting hopefully in the next week or so the Senate will vote and then I'll have my five years. Hopefully the Senate will vote. But it was really fun to be at this with my family, which is really an unusual situation where your teenage daughters get to see you in front of a Senate Rules Committee. I'm happy to say that they all really enjoyed it, which was a surprise to me.

And I also wanted to let you all know that we talked about how we've been reconstituting the Advisory Committee for the Clean Transportation Program. We have done that and we're having our first meeting next month, so excited to kick that process off. We're going to be
presenting a three- -- plan basically to the end of the
program to the Advisory Committee. And we'll see how what
kind of responses they get and looking forward to adjusting
the plan based on their input and public input as well.

So just what I'm most excited about with the
Advisory Committee is that now we have expanded to, for the
first time I think, community-based organizations that are
really representative of communities across California. We
have the Central Valley Asthma Collaborative, the Central
Coast Alliance United for a Sustainable Economy, mothers
out front, San Mateo Health.

So we really were trying to make sure that we
were stay true to this idea that we want community-based
organizations to be involved in advising us about how we
distribute these state funds. That's it.

CHAIR HOCHSCHILD: Okay.

Commissioner McAllister.

COMMISSIONER MCALLISTER: Yeah, just one thing
actually. A couple of weeks ago I spent most of the week
in DC at the NASEO Energy Policy Outlook Conference, which
is when all the states kind of come together and take
advantage of being in DC to essentially talk about all the
different issues that are going on. And can meet with
stakeholders, Department of Energy and lots of DC-based
stakeholders, really from all over.
And then also take advantage to take a day and
walk around on Capitol Hill and talk to legislative staff
and try to make things happen. In particular, that
everybody comes together to make sure that the State Energy
Program and the Weatherization Assistance Program are
funded and really bend Congress's ear about how important
these programs are for all the states.

And we get millions of dollars from both, the
Weatherization Assistance Program funds goes over to the
Department of Community Services and Development. We don't
actually get that here. But we do get the State Energy
Program funds and that serves a lot of purposes in the
Building Code and Appliance Standards. So those resources
are great. And I think NASEO does the nation a great
service by making sure that Congress and all the staff
knows how important these funds are.

Building Codes, just all the issues, you know,
remarkably similar issues. I agree we're on the cutting
edge of a lot of this stuff, but all the states are
thinking about these various issues in different ways. So
it's really helpful to come together.

And then this year they actually broke out an
innovation summit. It's kind of been an idea for a number
of years, but they kind of focused on innovation. And
actually in future years I think it would be good to kind
of pull the EPIC staff actually into that and get them out there, because I didn't quite tune into that until I was actually there. And I was actually there and I was like oh, they're talking about R&D.

But I think there's sort of a budding interest across the states in focusing on R&D. And we would obviously be in a great position to help guide that conversation. So I want to bring that back to Commissioner Scott.

But yeah, I think that's the main event for me in the last few weeks. So thanks.

CHAIR HOCHSCHILD: Okay. Vice Chair Scott?

VICE CHAIR SCOTT: All righty, so I had an opportunity to go -- we're doing our EPIC Innovation Tour. And so taking a chance to go and look and see some of the EPIC projects that we have. And I'm going to read some of them to you just because they're a little bit technical, but they're all really, really interesting. We were up at UC Berkeley to see what they are working on there.

One of them is an open source platform for plug-in electric vehicle smart charging in California. What's exciting about that is we're really trying to put in place this platform that will allow the vehicles to charge at the times where it makes the most sense for the grid, right?

And most of this is stuff that the driver, it'll
just be ready to go when they're ready to drive it. But there's all this stuff that goes on in the background to help make sure that the vehicles are charging at appropriate times for the grid. So that was really interesting to look at and see the research and technology there.

We're looking at flexible load within buildings. And so this was a customer controlled, price mediated, automated demand response for commercial buildings. And it is actually kind of the same idea but for buildings. And so there are different loads that you can move and shift and change around in buildings and when they come on, why they come on, how long they turn on for and things like that. And so making all of that again automated in a way that the building works really well with the grid and when we need that kind of flexible demand as well. So that was an interesting piece of technology to look into.

We are also looking at Cal-Adapt and how to visualize climate risks. So the Cal-Adapt helps you to see where the different types of climate risks that we think we will see will happen around the state. And getting a lot more local information, because something that could potentially be taking place on the coast is very different than what might take place in one of our desert landscapes. And so we're really trying to put this together.
It's actually really an interesting platform. I should have brought the link for you guys to take a look at item, because you kind of have to see, at least for me I had to see it, to really visualize what's going on there. But they're trying to take that data and information and put it in layers where you can take a look at it. And use it in a useful way for local folk to make good policy decisions going forward. So that was very interesting to see.

We talked a little bit about some of the research that we have done for the Fourth Climate Assessment. Berkeley helped us do the regional piece of the Fourth Climate Assessment for that part of the state.

On the Fifth Climate Assessment, we're going to try to have some additional funding that comes into that so that we can do this. On the Fourth Climate Assessment this was all done voluntarily, which is great. But we ended up with different levels of quality in the work that we got back. So we're trying to get out ahead of that for the Fifth Climate Assessment and pay people to put that information together, so that we really have the interesting local information we need.

And then we had a chance to go look around in the lab. And there are two things that they have. One is an anemometer for indoor air. And it's just a much easier,
more simple way to measure what's going on in indoor air.

And also an integrating smart ceilings and communicating thermostats to provide energy efficient comfort, and so what was neat about that is right now, for example, if we all leave the room the lights will go out because it'll recognize that there's nobody in here. You can't really do that with ceiling fans and air flow.

And that's something that they're looking at as well. So when people are in the room and you have then you have the air flow and the ceiling fan running, you're making the room very comfortable. And then it recognizes that there's nobody in the room if folks have left, and it adjusts those systems accordingly, kind of similar to the way that they do the lights.

So that was just really kind of a nice sampling of some of the things that we've helped fund over at UC Berkeley. And I enjoyed the chance to look at that.

And then I have one other topic for you all. And this is for our EPIC program. And so as you all know EPIC is administered by the Energy Commission and the three investor owned utilities. The Energy Commission does about 80 percent of the funds in the program and the three investor owned utilities collectively administer about 20 percent.

And so in 2017, there was an independent third-
party evaluation of the EPIC Program. And that was
directed by the CPUC to conduct that. And basically the
evaluation recognized the strength of the Energy
Commission's administration of our funds. And it
specifically called out our alignment of research to state
policy goals, the close engagement of stakeholders,
transparent processes and our robust information sharing.
So that was great to hear.

The evaluation though also noted that the EPIC
program could be strengthened by creating a group to better
coordinate the information sharing among the administrators
research. And to identify areas that would benefit from a
closer collaboration. So the CPUC and the EPIC
administrators have recently established the Policy and
Innovation and Coordinating Group, or the PICG. And that's
going to help facilitate that coordination.

And the reason that I raise this with you is that
the PICG contractor is starting to conduct interviews of
senior policy officials and leadership at the IOUs and also
at the Energy Commission and at the Public Utilities
Commission. So if you hear from them or you see this PICG
show up, please respond to them. I think they would really
love to hear from you all about what your thoughts are in
this space.

And one of the things that they're going to look
at are policy and innovation partnership areas. And so what they're wanting to know is where do we think we should coordinate on these policy and innovation partnership areas, or PIPAs.

And some of the things that we're thinking about here at the Energy Commission are we want the PIPAs to be things that are important policy-related research that require key contributions from more than one of the members, right? So otherwise it's not coordination if we're not all speaking together on this that are informed by multiple research projects, are specifics that we can kind of focus in on the topics that we pick. And we'll be able to have some metrics or things around that to understand if we're moving the needle.

And so that is just a really high-level discussion of it. I think it would be great if you want to know a little bit more to get briefed by Lori ten Hope, or Linda Spiegel or their team to kind of really hear what's going on. They're the ones who are steeped in this day-to-day. But basically you will hear from the PICG contractor to see kind of what you think some of the topics are that we and the investor owned utilities ought to be coordinating on together within our research program.\n
Those are my two updates.

CHAIR HOCHSCHILD: Fantastic.
Commissioner Douglas.

COMMISSIONER DOUGLAS: All right. I've got two brief updates and then if you don't mind I will step out, because I set up a lunch time commitment.

So last week, and the Chair will talk about this I know, I attended the California Lithium Recovery Initiative Symposium at Stanford. And it was very well attended. It was an exciting event. It's clear that this technology is moving forward. It's ready and I moderated a panel with some local voices from Imperial County. And this is certainly a county that is engaged and experienced with permitting and excited about the opportunities. And so that was a really good event.

Secondly, the Energy Commission put on our website the culmination of a series of discussions between the Department of Defense, Bureau of Ocean Energy Management and the Energy Commission Ocean Protection Council in Congressman Carbajal's office. And NOA was represented as well through folks from the Monterey Sanctuary.

But in those conversations we were looking to identify whether there were additional solutions sets or ideas that should be vetted with the public to get us past the issue of military activities, which are very intense and overlapping and complex on the Central Coast and the
potential for offshore wind.

As a result of those conversations we have put on our website a background short description and a map that will be used that identifies two areas that were not included in BOEM's original call primarily, because they're closer to shore. But the military has indicated our less of a challenge for the military in terms of operational conflicts.

And so the next steps are to collect public comment. We've got a number of events that we will be going to on the Central Coast. We'll be doing local outreach and tribal outreach. And the message to the public and to local officials and other state agencies is that we want people's comments. And in fact because the Bureau of Ocean Energy Management is organized thought a task force that does not itself collect and respond to public comments, the Energy Commission is taking the step of being the place where we are inviting comments.

So members of the public who wish to comment on this overall process, even though it will ultimately feed into a federal agency, have been asked and invited to submit comments to us. And we will collect those comments and we will work with BOEM to make sure that they have those comments. And we will be informed by them.

And so those are my two reports and a lot of work.
to go on both those.

CHAIR HOCHSCHILD: Commissioner, did you want to update on the Military Summit or did we do that already? I can't remember, we had a meeting since we were there together?

COMMISSIONER DOUGLAS: I thought we had done that.

CHAIR HOCHSCHILD: Maybe we did. I don't know.

COMMISSIONER DOUGLAS: Because I just looked at our last business meeting --

CHAIR HOCHSCHILD: I can share a little bit. I don't remember. So it's -- or maybe the (indiscernible) --

(Overlapping colloquy)

COMMISSIONER DOUGLAS: I think I reported on it and you weren't here, correct. But I think you should report on it, because my report was fairly high level.

Anyway, thank you.

CHAIR HOCHSCHILD: Yes.

COMMISSIONER DOUGLAS: Thank you.

COMMISSIONER MONAHAN: Commissioner Douglas, just one question. With the federal announcement that there's not going to be approvals on any offshore wind until election, how does that impact what we're doing here in California, if at all?

COMMISSIONER DOUGLAS: So that announcement was
regarding permit reviews or environmental reviews for applications on the East Coast. My understanding is that it came out of the Bureau of Ocean Energy Management. And it was driven by their sense of how long it would take them to review the project.

I think that as we get into this we are going to find that reviewing the environmental impacts of large projects in the ocean and the different things you have to look at, the connection to shore, the fishing impacts, the cumulative impacts, are not going to be simple.

And in fact to the extent that we in California have an opportunity to get ahead of that -- and that's what we've done. We've started the public dialogue. We've started the data collection. We started to understand what is ahead of us and what we need to -- where the gaps are in our knowledge and what we need to do. We will be better off.

I think there is nobody who would contradict me when I say that the federal process for these projects is long. It is long. And I know that there are some in the industry who have expressed some frustration with how long things are taking on the East Coast. And at the same time I think we also have to acknowledge that this is pretty new and for these kinds of reviews, for these kinds of projects in the US.
So I don't necessarily read anything beyond that into that, although you never know, of course.

CHAIR HOCHSCHILD: Okay, that's great. Thank you.

So yeah, let me just add on to Commissioner Douglas's comments about the Lithium Symposium. That was a home run. We had a like standing room only audience full house at Stanford. Really interesting, the heavyweights that are now coming in, there were some very significant investors from China as well as the United States who attended. We had all the electric vehicle manufacturers and battery storage folks as well. And now we have four serious companies that are actively engaged in lithium development in California.

I think we should think of this as the oil of the clean energy future. And if you look at, just the Super Bowl for example, we had three electric vehicle ads after hardly having any EV ads on TV at all. They're electrifying the Ford F-150, all this stuff.

So this trend that we're seeing is going to drive lithium production globally. We are sitting on what we believe to be the largest reserve of lithium in the world in California. So really getting the process right, the permits right, one of the things that -- you know I just want to say again Vice Chair Scott has been doing a
spectacular job in what is really the gold standard
landmark program at the Energy Commission with all we were
doing is EPIC and R&D. And as part of that we're now doing
$14 million of funding for the lithium space and to promote
lithium production. And you're going to see demand take
off.

The other thing that is worth noting is this, in
addition to being relatively low cost to produce, because
the lithium is in the brine. So when you get lithium in
Australia you dig it up. It's in rock. You bust it up
until it's 94 percent rock and 6 percent lithium. You put
it on a ship and send it to China and it gets refined.

Our lithium is in the brine. It gets basically
put in these vessels where there's -- they have a method
where there's a bunch of these balls that actually collect
the lithium and then take those balls out and they can
extract lithium. And they have a technique for that and
also funded by our R&D, which is a great success story.
And it just left me feeling very excited about where this
can go. And it's also by far the greenest way to produce
lithium in the world for the way we were able to do it,
just by good fortune having it in the brine.

There's one deposit of lithium that's been found
in Death Valley, which is being developed by Rio Tinto.
And so they've been operating a borax mine for 90 years.
They have 90 years of tailings. So they have all this mud, basically, and they found lithium there and they're able to produce about 5,000 tons a year. So the global lithium market is about 300,000 tons. We think we can do, in the Salton Sea, about 200,000 tons. So it's on an incredible scale, so this is going to be a continued focus.

And so you guys have heard this before, but I basically had five priorities as Chair. It's really transportation electrification; building decarb; this vision, what we're calling Lithium Valley really to do a Silicon Valley for Southern California; offshore wind and then encouraging the continuation of our R&D program. So this is really the biggest event on the lithium priority and I'm really, really great for the staff for it was just really well organized.

So some months ago, Vice Chair Scott had mentioned to me, "Hey, you know we actually now have 17 electric vehicle manufacturers in the state," which I had not realized until she mentioned that to me. So it's been on my list to organize a tour of all these sites. I am now doing that. Commissioner Monahan and I, March 10th are going to do the first leg of that. The plan is we're going with Mary Nichols and Cliff Rechtschaffen to visit the Bay Area leg of this tour, but it'll be at least a three-to-four day thing. I think we'll do it in different
installments just to see up close where they're at.

We've funded several hundred million dollars of
tax credits through the CAPETA (phonetic) program for the
Energy Commission. We have a seat on that board. Ken
Rider represents me on that and it's a really exciting
progress. As you know, we went from electric vehicles
being the number eight ranked export. Actually it turns
out they weren't quite number one, they ended up being
number two in 2019, but that's an incredible, incredible
trajectory. And it's growing every day. So that's on the
list.

Also, I had a sit down with the CAISO Board.
Because of the nexus of Queen Electric Transportation and
the grid, Commissioner Monahan joined me and we met with
all five of the CAISO Board Members and Steve Berberich.
And that was just a terrific dialogue.

I did want to share the news that Steve has
announced he's going to be retiring this summer. It's a
big loss for the state. He's been a tremendous partner and
hopefully we'll get someone who can fill his shoes. But
we've had great relations with CAISO and I'm sure that'll
continue.

A couple of trips coming up, I'm doing an
offshore wind trip. I'm going to Portugal and another
conference in Germany on clean energy and climate policy.
I also met with the FBI yesterday about cybersecurity. I'm very, very interested that we maintain the very, very highest standards to protect data that we have here. I think staff has done a spectacular job of that. We have all of this dual-factor authentication in place and other things, but we want to stay on the cutting edge. So we're going to get more feedback and suggestions from them on how we can be as smart and proactive as possible on that front.

And the last thing I just want to highlight, I want to thank Darcy has joined, our Public Advisor Noemí Gallardo and our EEO Officer Carousel Gore and a few others on a little committee we've formed to do, we're doing a Diversity Day to celebrate the incredible diversity we have here at the Energy Commission. We'll be doing that, I think we said, in May.

When I took over as Chair I did this walk through and just tried to meet every single employee, personally. And my guess from asking people where they're from, I think we have people, I would guess, from around 40 countries working here at the Energy Commission. So we have a day that's going to involve cultural celebrations and food and so forth. And so thanks to everyone has -- that's really being quarter backed by our terrific Public Advisor Noemí Gallardo.
And yeah, I guess the last thing is this Military Confab was fantastic. So General Connolly, Head of the Marine Corps and Admiral Bolivar, the Commander of Navy Region Southwest, we spent a day and a half with those guys. And just gave an update on where we're going as a state and they actually had, I think, some suggestions for us as well on cybersecurity. And are very interested in particular, on the electric transportation stuff as well, so that's my update.

Let's move on to Item 14, Executive Director's Report.

MR. BOHAN: Thank you. I just want to note two items. In April, we'll be having an Earth Day celebration here at the building. And either that afternoon or the following day, we're also going to celebrate the Bring Your Children to Work Day, so a number of our staff have children and it should be fun.

CHAIR HOCHSCHILD: Which, by the way, I'm doing today. My daughter should be hear around -- she's off school this week, so I'm ahead of you. Thank you.

All right, let's move on to the Public Advisor's Report.

MS. AVALOS: The Public Advisor has no update today.

CHAIR HOCHSCHILD: Okay. Thank you.
Any public comment, yes we do have one, thanks.

Okay, Mr. Uhler.

MR. UHLER: I'm Steve Uhler, U-h-l-e-r. I've had a request in and actually the Vice Chair in November requested that the Public Advisor and perhaps the Chief Counsel answer my questions related to the requirement to meet the APA for rulemakings. That hasn't been fulfilled. And I've not received anything from the Executive Director pursuant to the Public Records Code about why it's not been fulfilled.

I had a chance to speak to the individuals who talked about the CBECC. The certification of the CBECC, they were unable to come up with the Title 20 code for the process that you're required to have or have pursuant a formal -- establish a formal process for certification of calculations under Public Resource 25402.1(a). So I have a real concern whether we're dealing with what Justice Scalia would refer to a mistaken expression or a lapse in wisdom.

You have some code under Title 20 for building standards. In '89 the Commission asked the OLA to delete that. It didn't get deleted. In '96, they asked again. It didn't get deleted. In 14, where you show the Title 20, you showed all of those sections of code under the 14001 through 10.

In '17 you removed some, so it's kind of showing
that you're realizing that there's some clarity issues there, because there actually is instruction in the code. And I ask that you see that you finally delete them. It happened for the Tax Code under 2600, see that that's clarified.

I'm running into people who think that I can't explain what I'm looking for. And it may be because some folks have ventured off and decided that they can write a piece of software that represents a form, in effect, that is actually in violation of the APA. They can't tell me where these standards and how they are linked to Title 20 that allows them to write them into software code. That then will prohibit somebody from building a house when they use that code, like your local ordinances and such. So I'm hoping to have that cleared up.

But I particularly want the Executive Director to pay attention to the rules behind the Bagley-Keene and the meeting -- or the public record laws, because I'm not getting anybody to reply on the docket to why I don't get my records request answered. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Chief Counsel's report.

MS. HOUCK: No report.

CHAIR HOCHSCHILD: Okay. So we're adjourned until 1:00 o'clock.
(Off the record at 12:00 p.m.)

(On the record at 1:04 p.m.)

CHAIR HOCHSCHILD: Okay. Welcome back. We'll reconvene. Thank you, everybody. And a very special warm welcome to some special guests for me, my wife Cynthia and my daughter Sonya who's off for school this week. So you guys are going to see a little democracy in action today.

Thank you, everybody. I just want to read a brief statement here. To begin, we have a significant number of individuals that wish to provide comment on Item 11, the SMUD Community Solar Program. Pursuant to Title 20, Section 1104, the presiding member may limit or preclude oral arguments as necessary to ensure the orderly conduct of business.

In order to ensure the orderly conduct of business this afternoon, we'll hear first from presentations from staff and the applicant, SMUD. And next we will hear from elected officials and agency representatives, then we will take public comment. And to ensure that everyone wishing to comment on Item Number 11 has an opportunity to speak, public comment on this item will be limited to one minute per person. If you share the comments of an individual who has already spoken, please do not repeat the comments, instead state you agree with the prior speaker and state the prior speaker's name you agree with.
And with that, let's get underway.

MR. BOHAN: Thank you. Commissioners, Chair, my name is Drew Bohan. For the record, I'm the executive director of the Energy Commission.

And the crowded room is testimony to the importance that folks attach to this issue and I think we're going to be in for a vigorous debate this afternoon.

What I want to do is walk through four -- four segments. The first is a brief history of what brought us here today. The second is a look at the SMUD proposal as it has changed from November when you first heard this item to today. The third is I want to just briefly tick through each of the six criteria we use to evaluate SMUD's application. And very clearly, we've done this before, but at least highlight for you how we arrived at the decisions we did, particular on one element that I think has been the most -- generated the most debate.

And then finally, my presentation will cover some of the opposing arguments that we've heard and why we've nevertheless come forward recommending approval. But I'll have -- at the very end, there's a couple that I won't have covered that I just want to raise to your attention.

So let's start with a brief history. In December of 2018, and the reason I'm presenting this today is I testified before the Building Standards Commission in favor
of their adoption of the 2019 building standards. And was pleased after that, there was also quite a number of people in that audience that they voted unanimously to approve our building standards. They of course became law January 1 of this year. And when we approved them, they got a lot of attention, there was a lot of press, there was a lot of discussion, and a lot of the focus was on one feature which was the solar requirement. For the first time in this country, a state adopted a requirement that all new homes have solar on them. And so we responded to a lot of that conversation at the time.

One of the options we provided at that time was of course the conventional solar on the roof approach but we also had the community solar option. This was discussed in workshops, we had a lot of input throughout the whole 2019 standards period, and a portion of that conversation was about the community solar aspect. Fast forward from December of ’18 to September of last year and we received our first application, and it's the one that was before you in November. So we did a little back and forth with SMUD when we received that application, brought it to you in November believing at that time as staff did that it met the requirements. And I know you know this but you then asked that we postpone it and take a little deeper look which we did. So that brings us back to today.
So I'm going to flip to the first slide here, see if I can do this right. Okay.

So this is a list of the changes that SMUD made after the November business meeting before submitting the application that is before you today. So I'm just going to go through each of them briefly.

The application you saw in November pledged a guaranteed savings of $5 per kilowatt, SMUD doubled that to $10 per kilowatt. Secondly, they now are only going to use resources within their own territory. One of the criticisms you heard in November was they were using resources from outside of their service territory and in particular, a facility in Fresno got some attention and folks felt -- some folks felt that that was not consistent with a definition of the word community. SMUD's changed that.

They're also in this new application only going to use smaller resources. So they will only use facilities that they build or participate in that are 20 megawatts or smaller. They're all going to use new resources. So only -- the only resources applicable to this program will be those that are built in the future with one exception or maybe a couple of exceptions but one of them is if you were to approve the proposal today and a couple of months from now they receive an application from a developer that has a
100-unit development that wants to participate in the
program, they -- my understanding is, and I think that SMUD
will speak to this more, they've got a facility being built
right now, they expect it to come online later in the year.
But if it isn't online by the time they got some
applications, they'll use other resources to satisfy those.
But their intent going forward is that they'll only use new
resources to serve the load associated with folks that want
to participate in the community solar program.

And finally, they've clarified that home buyers
will have a choice. So if somebody were to walk into 100-
unit subdivision of new homes being built, they can choose
between community solar option or a rooftop option,
depending on what the developer chooses to offer. So SMUD
is allowing that and they've pledged to go a step further
and work directly with builders to help facilitate that
option and provide educational materials and so forth for
would-be homeowners that are looking at what options they
have.

So those are the changes. I now want to just turn
to the, again, the criteria that we are bound by our
regulations to follow in judging whether we think SMUD's
met -- met our rules. And some of them are quite
straightforward. Like the first one, essentially, they've
got to get their community solar facility running before
buildings that would apply to be a part of it are ready to
go so that you don't have building officials in the
community needing to wait for the solar facility to be
ready. So that's the first one.

Second one, also pretty straightforward. And that
is that we have compliance software, we've had it for
years, and we -- and folks that are regulated use it to
calculate energy budgets for buildings. We require that
that be done for each building in this situation. So,
again, to stick with my hypothetical, a 100-unit
development, each unit, there needs to be an assessment
based on its square footage and so forth of what its energy
performance would be and then that is the amount that is
used to score for the community solar.

Third, you then have to take that energy number, so
let's say it's 1,000 kilowatt hours per month for a given
home, and then you have to dedicate that if you want -- if
you want to participate in this program as SMUD is, to
each, each of those buildings. And I'm going to come back
to this one, but that's the basics. And it can't be a
premium program so it has to be cost effective. And
participants can't pay more for it than they would pay if
they weren't in the program.

Fourth is a durability requirement. So SMUD is
required to provide these benefits to folks who raise their
hands and say I want to be part of the community solar program for a period of 20 years.

Additionality is a fifth requirement, and that just basically says no double counting. So if SMUD -- obviously SMUD is participating in as obligations under the renewable portfolio standard, for example, other obligations. They can't count the resource they're utilizing for the community solar program to meet their obligations under RPS or other rules.

And then, finally, they just have to maintain transparent records. So, again, not much controversy with most of these.

Now I just want to turn to a focus on the third one, the dedicated energy savings, and just spend a couple of minutes drilling down on that because that was -- that was one of the things that we heard the most and the loudest at the last business meeting and you may hear comments on this again. So I wanted to just give it my best shot at being crystal clear about what the requirements are and why we believe that SMUD met them.

So the requirement -- this particular requirement is that once you've determined this given home, has an energy budget of 1,000 kilowatt hours a month, then you have to take that community solar facility you're building and match the resource of a hundred -- of 1,000 kilowatts...
The first way to do it is to wire it directly to each building. So you can have a community solar facility, you can wire it to each home and then provide the needed electricity for that home to each of the homes. That's one method. The second -- and then the customer would receive an on bill credit with their -- with their utility.

The second way a community solar participant could do it is to have essentially a virtual situation. And that's what SMUD has elected to do. So instead of wiring directly to each home, SMUD is required to account for, again, 1,000 kilowatt hours per month for that particular home. And if there's 100 homes, then each of those homes has to have that specific amount dedicated. And again, it's going to appear on the customer's bill. Same as it would in the first situation.

The third way that SMUD can comply is to calculate that energy savings and then determine what the bill -- corresponding bill savings would be and essentially cut a check to the homeowner. And I can conceive of that happening, SMUD could speak to what their situation is but if someone were to come to us and set something like this up, they may need to change their accounting system so that they can get their bills changed so that this can be built.
into the bill. That may take some time, so they may say, hey, we want to just cut a check to begin with to each of the participants because it's logistically easier, it's cheaper, who knows. So we wanted to provide that third option. So that's the first requirement under this Item 3, Dedicated Energy Savings.

The second requirement is that the package has to be cost effective. This is -- we've been doing this for as long as we've been doing building standards. We require that all measures, if you put in insulation and it costs X dollars and it will last for X years, we require that in the end, you as a homeowner are cash positive at the end of that, it doesn't cost you more for the energy efficient measure when it's typically it's energy efficiency in the past than -- than the savings you'll yield by virtue of the efficiency you'll get from that measure.

This is conceptually -- it's a little trickier because we're talking about solar and not a buy down, but it's the exact same thing here. And so for that reason, we think SMUD's application very clearly meets the requirements and recommend you approve.

Now I want to just highlight some of the arguments we've heard and explain why we think they're -- they're not accurate. So you heard a lot last time that the money savings to the homeowner will be inferior in the SMUD
community solar situation than it will be in a mortgage situation. And that's true. And I want to show a slide, my last slide I'm going to show illustrates that. But I want to be really clear, that's not what our rules require. Our rules require that the energy savings be the same regardless of which option is selected.

So let me click to my last slide and it shows here pretty clearly the money savings on an annual basis in SMUD territory associated with the three options. So community solar is the easiest because it's straightforward. We use 2.8 kilowatts as a system we modeled against and that's what this example is using. So $10 times 2.8 kilowatts yields $28 per year, the math is pretty straightforward.

The other ones we had to make some assumptions and some estimates. So for example under the mortgage situation, we estimate it would cost, on average, it's about, seventy -- excuse me, the savings would be about $78. We used $8400 as the cost of the system. It can vary. Costs are going down, they could be more expensive depending on what -- what provider you go with, that's the number we picked and we used it throughout the standards development process.

We also used a 4.5 percent interest rate on that mortgage, fixed rate -- 4.5 percent fixed rate mortgage. You can get a better deal than that today. That's true.
At the time we did it, that was what we thought the rate was about. But if you get a -- if you get a variable mortgage and, you know, the rates go up to whatever they go up to, well, then you're going to be -- then that number is going to go down, that $78 is going to go down. If you were able to get a great mortgage rate today, that number will go up a bit. So the idea is that gives you at least a range of it. And then lease, we talked to some local folks who provide leases and we came up with $71 as again a rough estimate.

So the money, clearly, is higher in -- in the first two options than the latter. But the community solar option is just that, it's an option. And to some homeowners, it's going to be very attractive. It's -- it's set it and forget it. Right? You sign up, you're good to go. I'm going to get 28 bucks better than I'd get if I weren't in this program going forward. As again SMUD's rates may go up or they may go down, whatever they are, I'm going to be $28 to the good relative to what I'd be paying if I wasn't in the program. I don't have to show you my credit score, I don't have to pay points, there's no other things like that associated with it.

I don't get the solar on my roof and for some homeowners, that's a big negative. Others, don't want it. So, again, different people have different approaches and
attitudes and so this provides options.

    The other, too, you're going to need a larger
mortgage, you're going to need to, you know, go through all
the credit checks and all that business. So, again,
different strokes for different folks. But that's how that
works.

You heard some very, very large numbers last time
about what the SMUD program would be, what a community
solar participant in SMUD territory would be losing if they
selected the community solar option versus a mortgage
option. And we didn't find any evidence that those numbers
are accurate, we think the ones we've got are pretty close.

So with that, I just want to go through a couple of
the additional claims that we've heard that I wanted to
talk about. And really the first is this, and again the
notion was I just want to one more time say there seems to
be a notion that the rules require that there be an equal
money benefit and that's just not true, we wrote them -- we
think the language is fairly clear on its face that it
doesn't require that.

And finally it doesn't make logical sense. If you
look at this chart, if we were to have said the community
solar option at the bottom has to be the identical money
benefit as other options, well, what would it be? Would be
$78 at a 4.5 percent mortgage rate with an $8400 system?
Would it be, you know, a 2 percent interest rate? I mean, there's so many variables that it doesn't seem logical to us that that would even -- that that approach would even make sense. So that's the -- that's the one that we did here.

And the other one I wanted to point out that wasn't covered in my description of the changes SMUD has made is this idea of a slippery slope, that if you approve this, SMUD territory rates are low but if you approve it, there's other territories where it's -- where it's higher and the delta is even greater between the savings potentially associated with the community option and other options.

And staff's position is, you know, we're evaluating the proposal before us, I believe we have a representative from the California Public Utilities Commission that's going to talk a little bit about the IOU territories and what steps would need to be taken for an IOU that wished to participate in the community solar program. But I think we'll -- we will leave it at that.

With that, we suggest you vote in favor of this item. Thank you.

CHAIR HOCHSCHILD: Thank you. Let's move on to the applicant.

MR. LINS: Okay. Good afternoon. Am I on here? Just need to be closer.
Good afternoon, Chair and Commissioners. My name is Steve Lins, I'm the director of Government Affairs at SMUD. And with me, I've got Marissa O'Connor, a SMUD counsel. Ed Hamzawi who is our director with Advance Energy Solutions, as well as the president of the SMUD board Rob Kerth, and another board member Brandon Rose who are here to speak on SMUD's behalf as well.

Like to thank staff for all the time they've taken with us to work on this, develop and refine the program, it's been quite a while to ensure that it's meeting the regulations, and also to address at least many of the concerns that the stakeholders had.

So a little bit about SMUD. SMUD is community owned not for profit utility. We've got 1.5 million people that we're serving. About 99 percent of those people live right here in the Sacramento County area. We have a seven-member board that is connected to that community. And as we plan for a zero carbon future, everything we do is focused on those customers and communities, their needs and interests in mind. So we're looking at all the customers and trying to optimize our system for them. SMUD is clearly committed to a clean energy future and we're already at about 50 percent carbon free.

So I'd like to take a moment here just to look at the bigger picture. SMUD's integrated resource plan was
approved by our board and the CEC. It provides for billions of dollars of investment to reach our IRP goal of net zero carbon by 2040.

I'd like to thank the CEC for your approval for what staff called an ambitious roadmap for lowering greenhouse gas emissions in the Sacramento region while maintaining low rates and reliability. And that last phrase is very significant. Electrification is the cornerstone of our strategy so we have to keep rates reasonable. We don't want to create a disincentive for electrification. So to reach our goals, we're investing in building electrification, transportation electrification while maximizing energy efficiency demand response and renewable energy both grid connected and small scale resources.

SMUD has been a leader in solar for decades. We had the first commercial solar PV plan in 1984, the first solar powered ED charging station in '92, and most recently first net zero energy community here right in midtown Sacramento featuring rooftop solar and batteries. And you can see from this slide, we have about 170 megawatts of community and utility scale solar today. We're estimating that that's going to go all the way up to 1550 megawatts by 2040 and a 1,000 of that's going to be locally sited.

And on the solar side, rooftop solar side, this is
a good place to pause and get some perspective. You can see that we currently have 210 megawatts of rooftop solar in our service area. We're estimating that that's going to go up to over 600 by 2040. If you look at the project that we are resourcing Neighborhood SolarShares with Wildflower, it's 13 megawatts. Thirteen megawatts compared to an anticipated rooftop solar market of 600 megawatts. We're anticipating that that project is going to cover our needs for about three to four years. And during that three to four years, we will look at opportunities to build other 20 megawatt and smaller projects.

With our IRP, we're going to need every option we've got to reach that goal. I mean, that's a big audacious goal. It's going to take rooftop, it's going to take community solar, it's going to take electrification.

But one thing I would like to really emphasize here is that even with Neighborhood SolarShares on a customer's house, additional rooftop solar and batteries can be added to the home. And this is something that there's really been some confusion about and misinterpretation about. Customers can add solar and storage to a Neighborhood SolarShares home on day one.

And I'm going to walk you through a slide that gives you several scenarios. And we've been working with your staff on the numbers on this. I don't have -- we're
not putting exact numbers. The point I'm trying to get across here is kind of orders of magnitude. If you see that first bar, that first bar there is the SolarShares allocation that's likely to come out of a standard mixed fuel home in the program. That's going to be around -- and these are just round numbers, I've been working with staff on this -- that's around 3 kW in my example.

In the second bar, you'll see kind of a yellow dotted line at the top. That's our anticipated load. And for SMUD, the anticipated load is either historical load or in this case it's new, so we use a formula, we use square footage and other factors to come up with an amount. But our formula comes up with an amount for this home, mixed fuel, 5 kW. So day one, mixed fuel to mixed fuel, customer, Neighborhood SolarShares customer can add 2 kW of rooftop solar with batteries and still get net energy metering treatment, day one.

Now if that home is an all-electric home, built to code all electric, our new anticipated load for that home will be 8 kW. That means if they have a new home built all electric, they now can add 5 kW of rooftop solar and batteries on top of their Neighborhood SolarShares and still get net energy metering treatment.

But that's not all. If -- if they then decide they want to add a couple of EVs and a pool, that will raise
that anticipated load by another 5 kW. That would be an anticipated load of 13 kW. So you have an all-electric home with a couple EVs and a pool, you can add 10 kW of rooftop solar on top of Neighborhood SolarShares and still get net energy metering treatment.

Now the fourth bar is just an example where the anticipated load is basically at the Neighborhood SolarShares allocation. In that case, you couldn't add rooftop and battery and get net energy metering treatment. But you could add as much as you want. You could put 10, 20, whatever you want to put on the roof with batteries, you want to have some resilience, you can still do that, you're just not going to get net energy metering treatment.

So, I mean, the obvious point here is that in all scenarios, it's very easy to add rooftop solar and batteries and in most cases still get net energy metering treatment. And so there is absolutely no need for an opt-out. People have been asking for an opt-out. The reason for an opt-out is so they can add rooftop solar. They can already add rooftop solar, they can just opt in to rooftop solar on day one with Neighborhood SolarShares. There's no need for an opt-out.

So next slide just gets into a little bit into a lot of the efforts that SMUD's doing to advance solar adoption in Sacramento. We've got some workforce training
going with 200 disadvantaged youths. They're working on putting in solar trees in up to 11 locations throughout Sacramento. We've put in 178 rooftop solar installations at low income house to no cost to those customers with the help of grid alternates and Habit for Humanity. We've got the largest commercial SolarShares program in the country. We're innovating, we've got some new software out that actually improves the connection of rooftop solar to our system. And finally, we've got a new storage shares program, we're working with Electrify America on that. And that helps address that peak energy command for EV charging and helps support the expansion of EV charging in the community.

So once again, the building standards require all new rise residential to have solar energy. It can be onsite or community solar. Either of those solar alternatives provides the same environmental benefits, reducing greenhouse gas emissions criteria pollutants. But Section 10115(a) gives homeowners and builders an additional choice, it's just an alternative path for compliance, it's only an option. And it might seem obvious to say this, but without this option, there's no choice, there's only rooftop. Both rooftop and community solar have unique benefits. At the end of the day, they both reduce carbon.
I'd like to take a moment here just to highlight some of the unique benefits of SMUD's Neighborhood SolarShares program. First, we're actually offering a choice. Second, our solar's lower cost and more efficient. And right here I would like to emphasize and this goes a little bit to what Drew was saying about the costs. Though in his chart he had the $78 for mortgage, $71 for a lease, and then $28 for our program, our program accounts for all normal costs and does not require a subsidy from nonparticipating customers.

That incremental difference between our amount and the other two amounts comes from the rest of our customers. And as I mentioned, we've got to keep an eye on rates because if we're going to electrify, we need to make sure those rates are reasonable. So that's a huge benefit of our program.

There's no maintenance for customers. We take care of it, they don't have to worry about it. I've got 8 kW on my roof and let me tell you, it can be difficult at times, and it has been. There's -- we deliver the same number of kilowatt hours, rain or shine, every year for 20 years. With Neighborhood SolarShares, the project can be sited away from the building so you obviously can plant as many trees as you want. Those trees sequester carbon and reduce energy consumption through shading, which just gives you
more energy efficiency. And finally, there's lower up
front cost with Neighborhood SolarShares.

So just a quick overview of the program, the basic
structure's the same as it was last time. Contracts
between us and the developers, some CC&Rs between the
developers and the buyers. You've got charges on the
customer's bills that are less than the credits, giving
them their guaranteed net benefit. And SMUD's resources
will deliver the same amount or more of solar resources as
rooftop solar.

One thing I'd like to emphasize here is that those
charges and credits will actually be based on the portfolio
solar shape. So for now it'll be a blending of all those
in the portfolio. The customer experience will actually be
as if they have solar on the roof. So their charges will
be higher in the summer and lower in the winter such like
they had rooftop solar. And will virtually reduce the
building's energy consumption.

You know, there's been a lot of noise and requests
for features that aren't required by the regulations and
we've actually accommodated many of those requests. But I
want to make it clear that the Neighborhood SolarShares
program meets all the requirements, I don't think that's a
question. Our systems are available for inspection, we've
got equivalent energy performance. On benefits and
durability, we've got guaranteed financial benefits that
last for 20 years. And these benefits -- and there's some
comments in the docket that talked about well, these aren't
really based on, you know, actual energy projection. These
benefits will be based on virtual energy reduction
calculated using existing TOU -- TOD rates.

This isn't shown in the mock bill. We put a mock
bill in the application just to show what the bill
presentation is going to look like to the customer and most
of our customers don't want to see that detail. And so
we've talked to staff about this issue and we're happy to
make that detail available on line if somebody wants to dig
into it and, you know, look at all the calculations going
on under the hood. But they will absolutely be linked to
virtual energy reductions and using real TOD rates. And so
just wanted to get that off the table.

Finally, I think Drew said the generation will be
additional. We will be retiring reqs on behalf of each
home, specifically for that home. And once we do that, we
obviously can't go out and use those renewable energy
credits to cover some other RPS obligation.

Finally, we're obviously going to keep the records
that we need to ensure compliance.

So I think Drew went over some of these, but I
would like to just kind of do a quick walk through. You
know, in the original proposal, we had no limit on resource size, now we're limiting it to 20 megawatts or less. In the old proposal, we had service resources outside and inside the territory, we're now limiting them to inside the service territory. We had a guaranteed net benefit of $5 per kW, we've now doubled that to $10 per kW. We were using existing and new resources, now we've committed to new resources as of January 2020 with the caveat that Drew mentioned that, you know, if we have a gap to deal with, we will use some of our fit resources which are 5 megawatts or less.

And then we also have three additional commitments that we've made. First is that SMUD will collaborate with the builders and developers to provide a choice at the point of purchase. And you'll hear from the building industry about that today. We are committing to collaborate with the disadvantaged community representatives with respect to siting. And actually Wildflower is, you have two to three miles from both a CalEnviroScreen zone and a Promise Zone, it's close and we're happy to work with those communities and see if there's siding that works for -- for all of us.

Finally, VNEM that's come up several times. And we are committed to evaluating VNEfM. We're right in the middle of a net energy metering successor rate process.
That's going to go through 2020 and we'll be taking a rate recommendation to our board 2021.

Just real quick. SMUD is broad in diverse support, I'm sure you've seen the docket. We've got affordable housing, environmental advocates, builders, developers, associations, business community, legislators, and I'll talk about that a moment more in the next slide. Local and statewide labor, many who are here today. Local -- low income advocates, local government, and several publicly owned utilities.

And this is just a sampling of all of those support letters. And I'm just going to touch on a couple of them in each of the categories. In Affordable Housing Environmental Advocates, we've got NRDC, the Salvation Army, and the Sacramento Tree Foundation. And NRDC was opposed our first proposal but after we made several significant improvements, they're now supporting.

In the next category, we've got Sacramento Metro Chamber, the North State Building Industry Association, and the California Building Industry Association, and they're here to speak today.

In governing and labor, we've got the state association and the local IBEW 1245 supporting this, as well as, and this is really significant, 30 letter with support from 32 California state legislators, including two
chairs of the Senate and Assembly Energy Committee. That's
over a quarter of the entire California state legislature
supporting this project. That's pretty remarkable.

Finally, POUs, publicly owned utilities, we've got
LADWP, Independent Energy Producers, and the Coalition for
Community Solar Access. And once again, they're another
party that was opposed to our first proposal. With our
improvements, they've come back and are now supporting.

Just real quickly, once again we appreciate all the
collaboration with staff, they've been great, you know,
trying to work back and forth and find something that, you
know, is an option that's going to work for all of us in
reaching our, you know, clean energy goals. They've found,
obviously, our first application met the requirements and
they've said again today that this one does and they're
recommending approval.

But just final, you know, high-level view here. I
mean, we're focused on the big picture here. And for us,
that's net zero by 2040. That's an audacious aggressive
goal and we're going to need every tool in the toolbox to
get there. I mean, we're going to need rooftop, we're
going to need community solar, we're going to need
electrification, we're going to need all this stuff.
Neighborhood SolarShares is just one of many strategies
that we have for reaching that goal. It meets all the
requirements, it's just another path or option for
compliance. It creates a choice for builders and buyers.
Without Neighborhood SolarShares, there's quite simply no
other choice in rooftop and that's not what was intended in
the regulations.

And finally, Neighborhood SolarShares advances
solar along with an expanding rooftop solar market.
Rooftop's here to stay. I just want to -- so with that, I
think I'm going to finish off by turning over to Brandon
Rose who's a director from the SMUD board of directors and
he has a few comments to add.

MR. ROSE: All right. Thank you. Thank you, Chair
and Commissioners. My name is Brandon Rose, and I'll
brief, I know there's a lot of speakers who want to have
their time.

I am the elected SMUD board member, I represent
Ward 1, which is Fair Oaks, Orangevale, Citrus Heights, and
Folsom. I've been elected since 2016. I'm the chair of
the Energy Resources and Customer Service Committee. So we
have things like the Integrated Resources Plan under my
committee. I want to note my colleague and board president
Rob Kerth is here with me today as well.

My background is I'm an air pollution specialist
working on vehicle electrification work. And before that I
actually was in the Renewable Energy Office at the Energy
Commission where I worked on new solar homes partnership pilot (indiscernible) programs on the general emerging renewables program. So I am extremely familiar with this subject material.

Also the immediate past present of ECOS, Environmental Council of Sacramento, which is an advocacy coalition nonprofit. I've done a lot of environmental advocacy work throughout the Sacramento Community over the years.

I'm also the former chair of the Sacramento County Treasury Oversight Committee that oversees the county treasury.

So I just wanted to say SMUD, as everyone knows, has been around for over 70 years now. It is a community owned, not for profit electricity provider. And I have to point this out, there are no shareholders at SMUD. Nobody at SMUD is working to -- working for Wall Street. It really is about focusing on the residents of Sacramento County and really doing what's right.

I also want to note that we are the proud recipients of the J.D. Power award with a top-ranked California utility 18 years in a row for residential and 10 years in a row on commercial. So we definitely have a really high standard, high bar that we keep. Part of that sort of secret sauce is definitely our governance system.
and our governance policy, but I won't go into it, but it's definitely how our board operates. We set standards and we hire good smart people, implement them, and we monitor and make changes as we go along which is basically adept management.

Also wanted to note, SMUD is very fortunate that we are in Tier 1 fire area, so we do not have the public safety power shutoff issues. And I point that out because our application when you look and maybe consider it for future applications, you might have different criteria that you consider, and I think that's important to note.

So a little bit, IRP, this Commission approved our 2040 IRP, it was a net zero plan. As Steve mentioned, it requires an enormous amount of renewables that we are actively building and planning for more. Also I would note had a large reduction in our thermal generation. It's basically anticipating doubling our load while reducing our capacity factors from about 60 percent to 15 percent on our power plants. So really significant carbon reductions in that plan.

It does, of course, include enormous amounts of money for transportation and building electrification. That really is the pathway, and this Commission's reports have also shown the pathway to decarbonization is through electrification. But that plan is not without risk to SMUD
as a utility. It's about 7, six and a half, almost $7 billion investment. It really is predicated on the use of low-cost electricity for people to make that transition. And without keeping those rates as low as possible, people won't be able to switch to heat pump hot water heaters and take those really concrete actions that are required.

Want to point out that the large scale solar, it is the most cost-effective, the solar power options. It's about, you know, you can have a debate, but around the quarter of the price rooftop solar. So it really helps us put the maximum number of dollars put into generation. As much -- from our perspective, very cost efficient, and also minimizes the cost to our consumers. And ultimately our consumers are, you know, if we save money, we simply don't have to raise our rates is how it works here at SMUD.

I do want to point out Neighborhood SolarShares, it's just an option. We've heard some builders will use it, other builders will not use it. It does give them the option. As you can see in our IRP plans is 400 megawatts of expected rooftop solar to be built over the next 20 years. So still is enormous I want to say market available out there.

I personally as a board member, I will continue to monitor this program and see if it has any kind of, you know, undue adverse impacts on the industry. I personally
like, am a big proponent on solar. I would really need to find that -- that sort of balance between all the different types of solar that's out there.

There's a lot of things that we could talk about, a lot of the public comments, I read through the docket. Questions on land use, distribution issues, I'm not going to get into those. I do want to say the climate change is an all hands on deck situation and we recognize that all of the options needed to be on the table. Rooftop utility scale and all the other types of renewables and storage technology that are being developed.

The other issue is housing and homelessness, it is a critical issue. I'm going to finish up. This really allows home buyers and builders to have a lower cost option and we see just how critical it is and the work in the legislature, this is a top priority. So it is important to have options. And of course being able to, you know, have a commercial -- community solar system when maybe there's shading issues or other issues, it's important as well.

We have been overwhelmed by the broad support. Steve showed all the different organizations and just a broad coalition who supported this application. The board -- we received an enormous amount of feedback. I feel very confident that the staff has taken all that feedback and considered it and put it into our application. We do
delegate our program authority to the CEO and staff.

We do have hundreds of -- we do have hundreds of programs so it's really not so feasible for the board to look at every single program that we run. And I consider this one of many.

So my final thought, I do want to thank you. I do want to encourage you to look at this in the context of Title 24. It is very specific. You know, Title 24 and our energy efficiency standards are based on certain types of accounting that may not be self-evident to people who aren't doing it on a day to day basis.

And with that, I ask you for your support and we will look forward to any changes of this in the future.

CHAIR HOCHSCHILD: Thank you. All right. What we're going to do now at this time is have very brief remarks from Grant Mack at the Public Utilities Commission to be followed by Senator Wiener, to be followed by Assemblyman Kevin Kiley. And then we'll then go to public comment.

Floor is yours.

MR. MACK: Great. Good afternoon, Chair and Commissioners. I appreciate the opportunity to speak here this morning.

Before I begin, I do want to congratulate on approving the 2019 IEPR earlier this morning. Is very much
a monumental task, congratulations Commissioner Scott for leading that effort.

My name is Grant Mack with the Public Utilities Commission as you mentioned, Chair. I'm largely here today to provide clarity regarding the community solar options with an IOU territory and answer any questions you may have.

Currently there were several community solar programs offered in IOU territory that were statutory enabled and established prior to the building energy efficiency standards solar requirement. Based on our internal analysis and conversations between the PUC, the IOUs, and the Energy Commission, we have found that the existing IOU offered programs don't seem to align perfectly with the building standards community solar compliance option. This likely means that the existing community solar programs would need to be modified or a new community solar program would need to be created.

Continuing along those lines, any major modifications to the existing community solar programs to align them with the building standards would be subject to CPUC review and approval. The same is also true for any new building standard compliant community solar program proposed by the electric IOUs or by stakeholders. It is highly likely that these reviews would occur at the formal
CPUC proceeding and these typically take around twenty -- 18 to 24 months, depending on the complexity of the issue, the scope of the proceeding, the number of parties, and various other factors.

Now, if a new building standard compliant solar community solar program is proposed and/or modifications are proposed to the existing community solar programs, it is unclear if the CPUC would be able to approve these proposals without statutory changes. I say this because the current programmatic parameters codified in statute prevent us from making serious modifications to the existing programs.

However, I do caveat this by saying that the CPUC's authority to approving new building standard compliant community solar program largely depends on the specific proposals brought forth by IOUs or the stakeholders.

Now in regards to community solar programs developed by CCAs, also known as community choice aggregators, there are currently no requirements for these programs to be reviewed or approved by the CPUC. These entities may design and create their own programs on their own volition.

Finally, I will note that there are no formal proposals before the CPUC to create a new community solar program or to modify the existing programs. We're also not
aware of any community solar programs currently under
development by the IOUs or the CCAs. However, I am aware
that there are active conversations between my team, the
builders, the IOUs about this very topic, but I will leave
it up to the IOU, CCA, and building representatives to
elaborate on that point.

I hope my comments have provided clarity regarding
community solar programs and IOU territory and I'll be here
to answer any questions you may have.

CHAIR HOCHSCHILD: Great.

MR. MACK: Thank you.

CHAIR HOCHSCHILD: Thank you, Mr. Mack.

Senator Wiener, we'll go to you.

SENATOR WIENER: Thank you very much and thank you
for having me today. Appreciate and thank you for your
service to the people of California. It's always a
pleasure to work with the Energy Commission. So thank you.

I regret to have to come today to oppose SMUD's
proposal. And I say this regretfully because this is not
about SMUD itself, I'm a fan of SMUD. SMUD broke away from
PG&E a long time ago, something that we have been trying
for many years to do in San Francisco, so we -- we tip our
hat to SMUD and to people of this region for having the
foresight to do what a lot of us should have done a long
time ago.
So this is not a criticism of the agency overall, it's a criticism of this proposal and also unfortunately an approach by SMUD to rooftop solar that I just fundamentally disagree with.

This proposal will significantly undermine solar and storage in the SMUD territory, rooftop solar and storage in the SMUD territory and it will set a precedent and a blueprint for other utilities, particularly the IOUs to do the same. And mark my words, even though nothing is being proposed now, it will absolutely create that precedent and that framework and we will see it coming forward. Because we know that when it comes to PG&E and the other investor-owned utilities, and we see this in the fights playing in the Capitol, there is no attack on rooftop solar and storage that they will not engage in because they want it to go away and they view it as competition. And so a decision to accept this proposal today will undermine our effort to expand distributed energy resources in the state of California.

Looking at the context here, we know there is a long history of utilities viewing DERs as competition and trying to undermine them. The plates play out here at the Energy Commission, it plays out at the CPUC, it plays out in the legislature. I am disappointed that a publicly-owned utility would take the positions that SMUD has taken.
I expect that more from Wall Street-owned utilities, I don't expect that from publicly-owned utilities.

Last year, just looking at the context as you know, SMUD came forward and proposed a very significant fee, I think 45 or $50 to be tacked on to solar customers' bill each month. That did not move forward and I'm appreciative of that, although I would not be surprised if it came back. That would have dramatically undermined the economic feasibility for people to put solar and storage up. And I have a bill right now, SB 953 to permanently ban those fees that target DERs to try to undermine them.

And I bring this up only because what is before you today, even though I know there have been a lot of protestations of this is not anti-solar, given the context, unfortunately, I believe this is anti-rooftop solar. SMUD then came forward, as you know, last year with a different version of what's before you today. I think the Commission correctly sent them back to the drawing board and now we have this revision.

This is in my view and from my perspective and effort to shift away from rooftop solar and towards utilities scale solar. And to be clear, I don't objective to utilities scale solar, I think it has an important role to play, so to DERs. And I don't think that we should establishing and expanding utility scale solar at the
expense of DERs and that's what this proposal is, it becomes a zero sum game instead of saying both and.

SMUD did and even worse, of course, for the -- if a developer chooses this option, then for 20 years, homeowners or apartment owners are either prohibited or significantly restricted from installing DERs on their property. And doing -- putting solar on without NEM, frankly, is not a real option for most people and it defeats the purpose economically. And so this is effectively a 20-year prohibition on putting solar storage on your building or on your home. That is not a good approach in my view.

Yesterday, SMUD published a piece in Utility Dive, which you may have seen, I'm sure a lot of people in the room saw and SMUD again professed its support for rooftop solar in the first half of the piece but in the second half of the piece promptly trashed rooftop solar, how it's dramatically more expensive, it's not economical, it's not reliable, it doesn't actually lead to energy independence. These are arguments I expect to see from a valid opponents of rooftop solar, not from a publicly-owned utility that says that it supports rooftop solar.

The existing rules that this Commission established provide exceptions for the rooftop solar requirement. If they're shading or for whatever reason, it doesn't make
sense, there are exits. I, as a proponent of solar, I
don't want to put solar on rooftops where it doesn't make
sense. And this Commission correctly created exceptions
for that requirement.

Distributed energy generation is a key part of the
future of a sustainable energy system of clean energy
resiliency in California and I'm concerned that this
proposal is a foot in the door to start deeply reversing
that trend.

And I want to just conclude by saying this
Commission has been such an avid supporter of DERs, and I
want to commend you for that. This Commission sees the big
picture and gets that. Unlike the California Public
Utilities Commission which has been systematically
undermining DERs. And I don't say that lightly, and I
could give a lot of examples, including their current
effort to undermine the SGIP program which I spent two
years passing and the CPUC has been systematically
undermining.

I would encourage the Energy Commission to maintain
your role as a champion for DERs and not go down that other
path and I ask that you reject this proposal.

Thank you for the time.

CHAIR HOCHSCHILD: Thank you, Senator.

Next we'll hear from Assemblyman Kevin Kiley, and
then we'll go to public comment.

ASSEMBLYMAN KILEY: Good afternoon. I'm Keven Kiley, I represent the Sixth Assembly District which includes part of SMUD's serviced area. And I have an abundance of respect for my colleague from San Francisco, but I think he's in a distinct minority on this issue when it comes to our legislature.

I am here speaking on behalf of a coalition of 30 legislators, bipartisan, diverse, eclectic that are in support of SMUD's proposal. This might be the first issue that all 30 of us have ever agreed on is this proposal for SolarShares.

And why is that the case? Because it touches on two issues that are of tremendous importance to all -- certainly to me, to all of us, and to the folks that I represent and that's clean energy and affordability. I mean, there is so much to be optimistic about when it comes to the future of energy. And yes, California is leading the way. But alongside this optimism, there's also a deepening concern about the affordability crisis that is gripping our state and pricing more and more people out of the California dream.

Surveys show that half of Californians have considered leaving our state. And of course, people do every single day. And this isn't just wealthy folks who
want to pay lower income taxes or capital gains. This is
the middle class, this is working people who just cannot
get by here.

Now this SMUD proposal which is the result of
painstaking work and engagement with a broad coalition of
stakeholders shows that these two goals, clean energy and
affordability need not be in conflict, they can go hand in
hand. And my concern is that if the Commission rejects
this proposal, it will reject that very premise and that
will mean more people who are unable to make it in
California, more people being priced out, more people
having to leave the state they love. But more than that, I
think it will actually serve to stall the momentum that is
building in a broad bipartisan way for moving us towards
the future of clean energy that we all want.

Thank you very much.

CHAIR HOCHSCHILD: Thank you, Assemblyman.

All right. At this time, we'll go to public
comment. Again, we're going to do one minute per speaker.
There are a lot of people wishing to speak today. We will
stay as long as it takes to hear from everybody wishing to
speak both in person and on the phone.

What I'm going to do is announce several speakers
in order so people can line up. And again, if your point
has already been made by a previous speaker, do not feel
obligated to repeat that. It's fine, just say your position, why you agree or disagree, and your name and organization.

So let's begin with Bob Raymer from CBIA to be followed by Ed Smeloff from Vote Solar, to be followed by Scott Tomashefski from NNCPA.

MR. RAYMER: Thank you, Mr. Chairman and Commissioners. I'm Bob Raymer speaking on behalf of CBIA in strong support of SMUD proposal.

As we look to the future, the state is moving towards zero carbon construction. And as you saw earlier this morning, local jurisdictions are already requiring builders to head in that direction in advance of state electrification mandates which we know are coming.

This carbon-free home is going to need roughly three to four times the amount of renewable energy that's currently required by today's state code. We can do this but we don't have enough space on most of our two and three-story single family dwellings and definitely on top of multifamily to accommodate all the solar that's needed. This means we're going to need a combination of both community solar and rooftop solar. We like both of these but we need both of these tools to go forward.

That's why the clarifications made by SMUD are more important. Homeowners buying community solar, can --
buying a home with community solar can go ahead and add
solar on top of their roof from day one --

CHAIR HOCHSCHILD: Thank you. Thank you. Sorry --

MR. RAYMER: Thank you.

CHAIR HOCHSCHILD: -- we've got to -- Ed Smeloff
from Vote Solar.

MR. SMELOFF: Good afternoon, Commissioners. Ed
Smeloff with Vote Solar.

I'll cut to the chase and be brief. I'm here to
encourage you to treat the SMUD program as a work in
progress. And frankly also to think of your own
regulations as how you're going to promote greenhouse gas
reductions 24/7 in new home developments.

The SMUD program is the equivalent of a new RPS
program for new homes. And while that is positive, it's
going to result in simply deepening the debt curve. What
we really need to have coming out of regulations, and I
know your regulations went -- there was a lot of work that
went into them, we need to have incentives for technologies
to work in coordination. Solar, automated demand response,
storage, electric vehicle charging, energy efficiency.

And so as you think going forward how to improve
this program and SMUD as well, we really need to think
about putting the neighborhood --

CHAIR HOCHSCHILD: Thank you.
MR. SMELOFF: -- in Neighborhood SolarShares.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Scott Tomashefski, to be followed by Daniel Barad, to be followed by Mo Kashmiri.

MR. TOMASHEFSKI: Good afternoon. We're here, NCPA, we're pleased to support SMUD's application.

I want to make it abundantly clear this afternoon that solar is a key part of our commitment to clean energy. Now we're currently looking to develop about 40 megawatts of solar energy within our member communities. To that end, we want to make sure that all of community members have the ability to invest in solar regardless of whether or not a person has the ability to place solar panels on a roof, whether that investment will be made for a utility project offering, or some other option, the building code appropriately recognizing that.

Our governing boards take this one step further making sure our utilities provide customers with unbiased information that will help customers select an option that best meets the needs of those customers. Our opinion, this really does exceed the requirements of building standards.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Daniel Barad of Sierra Club, to be
followed by Mo Kashmiri, to be followed by Hunter Stern.

MR. BARAD: Good afternoon, Daniel Barad on behalf of Sierra Club California.

I would like to urge the Commission to reject SMUD's proposal. Sierra Club California supports solar energy, but SMUD's SolarShare proposal will set a dangerous precedent in our state and undermine clean energy efforts that are underway with the solar mandate.

Community solar when properly defined is a necessary alternative when rooftop solar is not feasible. Unfortunately, SMUD's proposal is not a true community solar project due to its excessive project capsize, its vagueness about location, and its failure to show how the program will result in local benefits.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Mo Kashmiri, to be followed by Hunter Stern.

MR. KASHMIRI: Good morning, Commissioners. My name is Mo Kashmiri. I'm a resident here in Sacramento. I'm here because I'm ashamed of SMUD. We're going the wrong direction. We need every single place that can put rooftop solar to have it. We should not be putting misleading statements that put in poison pills, they're going to block solar for being on every roof possible.
We are already out of time to change this climate crisis. We should have been there yesterday. 2040 is too long. SMUD has five fossil fuel plants with no plans to shut them down. We need to -- it's both and, not an either/or. I strongly reject you -- urge you to reject this proposal complete with the fact that my eight year old is terrified about climate change. And I don't want to keep letting him down. Like this is on us, we don't have time left. We've got to make the hard choices. And blocking rooftop solar for doing -- for most of the consumers on this is not a path forward.

CHAIR HOCHSCHILD: Thank you.

MR. KASHMIRI: Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Hunter Stern, followed by Andrew Kosydar of CBIA.

MR. STERN: Good afternoon, Commissioners. Hunter Stern, IBEW Local 1245. We represent the workers at SMUD, PG&E, and almost every other public utility in this northern part of California.

We strongly support this program. It's well-designed. It's focused on the community, which is a big change that SMUD made. And most importantly, it avoids the problems that the existing California solar initiative has had on low and middle income customers, and also on the
rates of PG&E and the other IOUs. There's been a huge, over $3 billion cost shift resulting from the existing structure of rooftop solar.

The NEM needs to be changed. This avoids all of those problems. It doesn't put pressure on our wages, but more importantly, it doesn't saddle low income customers with costs that they don't deserve. We urge you to approve this, we think it's the right approach. And most importantly --

CHAIR HOCHSCHILD: Thank you. Thank you.

MR. STERN: -- it gives customers a choice if they want to have rooftop solar or not. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Andrew Kosydar, to be followed by Scott Murtishaw, to be followed by Steve Towle.

MR. KOSYDAR: Good afternoon, Chairman and Commissioners. My name is Andrew Kosydar, and today I'm speaking on behalf of Dave Sanson, President of DeNova Homes and the current Chairman of the California Building Industry Association.

Mr. Sanson and DeNova Homes are in support of SMUD's community solar proposal. When asked if builders of single family homes who choose to go with community solar would also be inclined to provide rooftop as a design option to potential home buyers, Dave's response is a big
yes. However, for the near future, the answer is moot as DeNova with single family homes will only use rooftop solar for the standard compliance.

In Dave's words, we're in the business of selling homes and rooftop is a marketable item. If the state or local jurisdiction were to increase the amount of currently required in the code, we might be consider doing a blend of rooftop PV on community solar -- and community solar, but the decision will be driven by the amount of available space on the roof.

Multifamily product is a different story. And he doubts he'll have enough room on the roof to refer to the required amount of solar. And for these reasons, we respectfully ask that you approve this application.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Scott Murtishaw, to be followed by Steve Towle, to be followed by Meghna Chowdhary.

MR. MURTISHAW: Hi. Good afternoon, Commissioners. Scott Murtishaw with CalSSA, just a couple of brief points. First I would say we appreciate all the efforts SMUD has made, the current proposal is much improved over the first version that they submitted.

We still have some concerns. For example, one of the foremost among those is the fact that for 20 years
future homeowners, people who might move into that home subsequently to the first buyer can never substitute their SolarShares obligation 100 percent with a rooftop solar alternative which seems a little questionable to us why that lockout is necessary and why you shouldn't be able to choose rooftop solar for 100 percent of your load.

And then the second is just to respond to the comments from Mr. Mack. We largely agree with his analysis that the current community solar programs probably are not Title 24 compliant, but we think that because those modifications are fairly minor compared to the existing programs, that --

CHAIR HOCHSCHILD: Thank you.

MR. MURTISHAW: -- those could be approved on a more expedited basis --

CHAIR HOCHSCHILD: Thank you. Thank you.

MR. MURTISHAW: -- and has suggestions.

CHAIR HOCHSCHILD: Thank you.

MR. MURTISHAW: Thank you.

CHAIR HOCHSCHILD: Let's move on to Steve Towle, to be followed by Meghna Chowdhary to be followed by Blair Swezey.

MR. TOWLE: Hello, I'm Steve Towle, I'm a current SMUD employee and I am in support of the SMUD program as what was previously stated.
Thank you.

CHAIR HOCHSCHILD: All right. Thank you.

Meghna Chowdhary, to be followed by Blair Swezey, to be followed by Alex McDonough.

MS. CHOWDHARY: Good afternoon, this is Meghna Chowdhary from SolarEdge Technologies.

With SMUD's proposal, we will be at a huge loss in terms of grid resiliency that modern waters bring from rooftop solar. We are able to perform voltage frequency controls, demand response grid services that we won't be able to do with community solars offsite, even a few miles away.

Lastly, with power outages due to fires, there's a growing need for onsite PV and battery assistance. We need enough rooftop solar to be able to recharge those batteries from PV and keep the basic services of keeping the lights on, refrigerators on, and charge the batteries.

Thank you.

CHAIR HOCHSCHILD: Thank you. Let's move on to Blair Swezey, to be followed by Alex McDonough, to be followed by Al Rich from NCR.

MR. SWEZEY: Good afternoon, Commissioners, I'm Blair Swezey with SunPower.

First let me say that we understand this has been a difficult process and we appreciate the attention that
you've given to the concerns of the various parties. We also appreciate that the nature of the offsite option and when it may be appropriate to be utilized was not well defined in the regulation and that the Commission is under immense pressure to approve this application today.

However, I'd be remiss if I didn't say that first and foremost we should be considering their interest of the new home occupants, the customers who are going to live in these homes. Our greatest concern about this application has been that the savings and benefits for the customer are not equivalent between the SolarShares offering and having a rooftop solar system.

Secondly under this program, these occupants through no free choice or decision of their own will be locked into paying for SMUD delivered SolarShares electricity for 20 years, irrespective of whether they later choose to install a solar and a storage system.

So our main concern here is that we are concerned about the precedent that approval of this program will establish for other --

CHAIR HOCHSCHILD: Thank you.

Let's move on to --

MR. SWEZEY: -- utilities. Thank you.

CHAIR HOCHSCHILD: -- Alex McDonough, to be followed by Al Rich, to be followed by Serena Moss.
MR. MCDONOUGH: Alex McDonough from Sunrun. Thank you for all your work on this.

Unfortunately, SMUD's application fails to answer critical questions about how it will -- how it will allow Sacramentans to enjoy the benefits of onsite solar and batteries that were envisioned in Title 24.

First, why does SMUD believe Title 24 requires them to lock customers into SolarShares for 20 years? The Commission has not taken this position. SMUD should answer why it won't give customers flexibility to switch from SolarShares to rooftop solar.

Second, SMUD says it will allow Solar customer -- SolarShares customers to install solar only for new load or at an extremely reduced export rate. Does SMUD think that anyone will want solar and batteries if they're permitted to offsetting their own utility bill? Could anyone other wealthy people afford this?

And third, SMUD says that it will encourage developers to offer customers and onsite solar option. But how will SMUD ensure this will be a bona fide choice for a home buyer? Will SMUD just allow all developers to default customers --

CHAIR HOCHSCHILD: Thank you.

MR. MCDONOUGH: -- into SolarShares?

CHAIR HOCHSCHILD: Thank you.
MR. MCDONOUGH: Is there anything stopping them?

CHAIR HOCHSCHILD: We have to move on.

MR. MCDONOUGH: Thank you.

CHAIR HOCHSCHILD: Al Rich, to be followed by Serena Moss, to be followed by Mary Holte.

MR. RICH: Good afternoon, Commissioners. I'm Al Rich, president of ACR Solar in Carmichael.

SMUD is a leader in promoting rooftop solar and the solar industry has greatly appreciated this leadership. For new home buyers, rooftop solar is not a cost but a day one savings because the energy efficiency savings exceeds the slight increase in the mortgage. It's a perfect scenario and ideal for the homeowner.

Rooftop solar also sets up needed infrastructure for distributed battery and hydrogen storage that is so essential to providing grid power stability which is a huge benefit to SMUD and all utilities.

The rooftop solar mandate was put in place by the state of California as one of many much needed solutions to a looming menace of climate change and was to be an example to the rest of the country of what can be done to fight climate change. Let's not dilute this incredibly important opportunity.

Thank you.

CHAIR HOCHSCHILD: Thank you. Let's move on to...
Serena Moss, to be followed by Mary Holte, to be followed by Ori Liwanag. Yeah.

MS. MOSS: Hello, my name is Serena Moss. I'm a SMUD employee and a member of IBEW 1245. And I would ask that you please support SMUD's proposal Item 11. Thank you.

CHAIR HOCHSCHILD: Thank you. Mary Holte.

MS. HOLTE: Hi, my name is Mary Holte with SMUD. And I support SMUD's SolarShares.

CHAIR HOCHSCHILD: Thank you. Let's move on to Ori Liwanag, I hope I'm pronouncing that right, to be followed by Michelle Smira, to be follow by Whitney Prout.

MR. LIWANAG: Hello, I'm a student at UC Riverside and an intern in environment California.

I'm here to urge the CEC and SMUD to do the hardest work possible to stave off the worst impacts of climate change and reject this proposal. To get 100 percent clean energy, we need our utilities to push. That means we need rooftop solar and community solar and we need it now.

I believe in what the experts are telling us and I believe that if we don't take the steps necessary now, my generation will be forced to take even bolder steps and more expensive steps in the future.

We hope you reject this proposal and let us tap into all that solar has to offer. Thank you.
CHAIR HOCHSCHILD: Thank you.
Let's go to Michelle Smira, to be followed by Whitney Prout, to be followed by Bryan Dove.

MS. SMIRA: I was in the overflow.
CHAIR HOCHSCHILD: All right.

MS. SMIRA: Cheap seats. Good afternoon, Michelle Smira here today on behalf of K. Hovnian Homes.
We're here in strong support of SMUD's application. We are one of the state's leading homebuilders for first and last time buyers. We'd like to continue doing that. We worry that these costs added to it will prevent that in the future.

Thank you.

CHAIR HOCHSCHILD: Thank you.
Let's hear from Whitney Prout, to be followed by Bryan Dove, to be followed by Ann Amato.

MS. PROUT: Good afternoon, Whitney Prout, the California Apartment Association.
We're here to support SMUD's SolarShare proposal and we'd like to support the comments submitted by the California Building Industry Association. I'll be brief. Without question, multifamily construction in this state represents some of California's most affordable housing in stock. And as we see, I'm in the front of the
newspaper. Every day we need more of it. We understand the state's goals for greenhouse gas reduction and we applaud the CEC for providing the community with a number of ways to comply.

But as we've heard, one size does not fit all. We believe the design option proposed here by SMUD balances the goal of reducing greenhouse gas emissions with the need to provide more affordable housing, and we'd urge you to approve the application.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Bryan Dove.

MR. DOVE: Hello, Bryan Dove with Mutual Housing California. We're a nonprofit multifamily affordable housing developer based here in Sacramento. We own and operate about 20 apartment communities and we're on track to develop -- to double that in the next five plus years. And we've been recognized internationally for our sustainable housing communities including mutual housing at Spring Lake which was one of the zero net energy apartment communities in the country.

So onsite solar at our communities in invest owed utility services have been feasible through a combination of virtual net metering and solar rebates and incentives. Since these aren't available in SMUD service area, we --
our ability to install onsite solar is not physically or financially feasible. So the SMUD's offsite alternative provides a viable option for us to continue developing these sustainable affordable communities.

So we appreciate your consideration of approving the SolarShares --

CHAIR HOCHSCHILD: Thank you.

MR. DOVE: -- option.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Ann Amato, to be followed by David Rosenfeld, to be followed by Lou Mennel.

MS. AMATO: Hi. I'm Ann Amato. I wanted to say I support Senator Wiener's comments.

I'm a resident of Carmichael, California and I recently put heat pump HVAC system and water heater in my home and then wanting solar and it's totally cost prohibitive. And I really looked at this issue and no matter is said here today by SMUD's (indiscernible) trying to get out of the solar mandate and this will result in killing cost effective home solar.

And it's my understanding that the head of the SMUD board says he wants no rooftop solar. And I believe that SMUD sees solar as a lost revenue. And they are a public utility, they're desire to action will abandon their customers, their community, and the planet which we all
know is in really big trouble. So please reject this proposal.

Thank you for your time.

CHAIR HOCHSCHILD: Thank you.

Let's move on to David Rosenfeld, to be followed by Lou Mennel, to be followed by Frank Harris.

MR. ROSENFIELD: Thank you, Commissioners. My name is David Rosenfeld. I'm the Director of the Solar Rights Alliance, a nonprofit association with California solar users.

The headline that you saw SMUD give you a little bit that a customer with SolarShares can install solar. Totally misleading. As Senator Wiener said, I'm going to paraphrase him, solar without net metering is a prohibition on solar. And the fact that that's not called out as clearly as it needs to be is a real problem.

The country's leading -- number two, the country's leading expert on community solar, the institute for local self-reliance, they've sent you a comment has said SMUD's proposal is not community solar, precisely because it does not offer anywhere close to the kind of benefit to the consumer as rooftop solar does. And two, that it actually replaces solar on homes that are perfectly suited for rooftop solar. That's a problem. We should listen to them.
The bottom line is that solar shares does not come close to giving the consumer the kinds of benefits that your original as intended solar homes mandate gives, that rooftop solar gives. It is not an either/or but SMUD is making that and we should have a both/and. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Lou Mennel, to be followed by Frank Harris, to be followed by Christine Drapeau.

MR. MENNEL: Good afternoon, my name is Lou Mennel, I'm a business representative for Local 1245. I represent over 600 hard-working members at SMUD. I'm also a customer of SMUD.

I strongly support the SMUD SolarShares program as well as these -- the SMUD SolarShares will be built in SMUD territory by union members. These jobs are highly skilled and paid accordingly. These are in fact are not just jobs but rather careers with living wages and benefits. Ask for your support.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Frank Harris. Frank Harris, to be followed by Christine Drapeau, to be followed by Thomas Paine.

MR. HARRIS: My Name is Frank Harris. I'm with the California Municipal Utilities Association. I appreciate the opportunity to speak in support of California's
Community Solar Program and of course in support of SMUD's community solar application.

As was said earlier, fundamental to the Energy Commission's 2020 standards is choice in establishing the eligibility of a community solar option. The Energy Commission recognized that homeowners should have these options. Community solar program can provide a more efficient way to increase solar and maintain choice for homeowners for whom rooftop may not be the best way of introducing solar.

This choice also works well within the context of California's current housing crisis. And it speaks to the issue, it helps to address the issue of energy affordability. For these reasons, many others, providing home buyer's choice is critical. SMUD's community solar application actually exceeds the compliance requirements.

CHAIR HOCHSCHILD: Thank you. Sorry. Thank you.

MR. HARRIS: Thank you very much.

CHAIR HOCHSCHILD: Yeah. Let's go to Christine Drapeau, to be followed by Thomas Paine, to be followed by Leah Barros.

MS. DRAPAEU: Hi, Christine Drapaeu, I work for SMUD. This was in today's Sacramento News & Review. This is all about our housing crisis, so one of the things that I did just hear, so I do agree with SMUD for the SolarShare
program. But something I'm not hearing is the maintenance, continued maintenance that's employment. I work for SMUD, I'll be at SMUD for the next twenty some-odd years and I am a substation maintenance electrician. I will most likely be participating in the maintenance of these solar programs.

So please do remember, you know, solar panels work when they're clean, and I'm a lazy homeowner. I'm not coming home and washing my solar panels. I'm sorry, it's not going to work that way. So please do remember that. When you're thinking about having that flexibility for all homeowners, all price points, you know, let's not keep ourselves trapped in one spot.

CHAIR HOCHSCHILD: Thank you, unique argument.

Let's move on to Thomas Paine, to be followed by Leah Barros, to be followed by Gisla Dewey, if I'm pronouncing that right. Go ahead.

MR. PAINE: Good afternoon, my name is Tom Paine. I'm a Research Analyst with ConSol, an energy consulting company here in Sacramento.

We strongly support SMUD's community SolarShares program. Our recent analysis, we've seen a number of multifamily building designs that don't have enough space for the adequate code required to mount solar on them. Typically if this is the case, builder gets an exemption,
reduces the size of the solar they use. With SMUD SolarShares, we can make that complete compliance without exemption and without compromising, therefore we strongly support this proposal.

CHAIR HOCHSCHILD: Thank you. Let's move on to Leah Barros, be followed by Gisla Dewey, to be followed by Pierre Delforge.

MS. BARROS: Good afternoon, Leah Barros here on behalf of the Independent Energy Producers Association in support of this measure.

SMUD has a proven track record of promoting solar and other clean energy resources to meet the needs of the customer. They do this in a cost effective portfolio of resources regardless of home ownership or economic status. They do this in a way that benefits all of SMUD's customers. SolarShares is an innovative program that will apply the new building standard consistent with California law in a manner that will lower the cost of compliance. This will be accomplished by utilizing the efficient application of solar to new construction in SMUD service territory in a way that, again, is cost effective and equitable.

As we all know, public support for climate change goals is ultimately dependent on affordability and equity. And SMUD's SolarShares program not only meets these
requirements but it also meets the new buildings standards
requirement as well.

With that said, we urge the Commission to approve
SMUD's SolarShares program. Thank you.

CHAIR HOCHSCHILD: Thank you. Gisla Dewey, to be
followed by Pierre Delforge, to be followed by Alicia
Priego.


MS. DEWEY: Good afternoon. My name is Gisla
Dewey. I'm a homeowner and a solar rooftop owner.

I oppose SMUD's proposal because it limits our
influence on -- sorry -- our influence on making decisions
and basically I oppose it. Thank you.

CHAIR HOCHSCHILD: Okay. Thank you.

Pierre Delforge from NRDC, followed by Alicia
Priego.

MR. DELFORGE: Chair and Commissioners. Pierre
Delforge, NRDC in support. We strongly support all form of
solar, rooftop, community, and central (indiscernible)
scale. All of these form of solar critical to allow us to
meet our renewable goals and keep electric rates of 40
below to support the electrification and decarbonization of
other sectors like buildings, transportation, and industry.

The SMUD proposal is not perfect, it can be
improved, but we support revisiting the rules in the
building code in the next code cycle and move forward with
the current proposal as a first step and improve their step
as we go rather than try to make it perfect from the
beginning.

For these reasons, we support the approval.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Alicia Priego, to be followed by
Alex Denuzzo.

MS. PRIEGO: Good afternoon, Alicia Priego here on
behalf of Arcadia, which is an energy service platform with
customers in all 50 states.

One service that Arcadia offers is connecting
customers with community solar projects. And with this
nationwide experience, we have visibility into the best
practices across the nation. And of the previously heard
noted, you know, there's still work to do. This SMUD
proposal is not the worst customer offering, but it's also
not the best.

However, today's action is the first step in
creating a vibrant market. And going forward, we would
recommend encouraging applications from entities other than
utilities so that customers benefit from competition with -
- within the community solar market.

Thank you.

CHAIR HOCHSCHILD: Thank you.
Alex Denuzzo, to be followed by Corey Smith.

MR. DENUZZO: Hello, Commissioners, my name is Alex Denuzzo and I'm a 16-year-old high schooler. I live within SMUD service area. I come to you today as a representative of the youth whose futures you are currently gambling with. I'm here today within these -- here today within these chambers. You all will be deciding what the housing market will look like in the coming two decades.

In five, ten years when I'm looking for a home, will I have the option of rooftop solar? Will I be able to save hundreds of dollars a year? Or will I be locked into community solar forced to purchase from SMUD?

I for one want to grow up to a green sustainable housing market. More than that, I want to grow up to a green sustainable healthy planet.

I urge you today to reject SMUD's -- to support these goals and reject SMUD's proposal. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Corey Smith, to be followed by Crisand Giles.

MR. SMITH: Hello, my name is Corey Smith. I'm a lineman for SMUD, an IBEW 1245 member.

I agree with SMUD's proposal. And as a homeowner, too, and a SMUD ratepayer as well, I -- first of all, I've never heard of an $8400 solar panel kit, that's really
cheap. If you talk to people in the community, 8400 bucks is a super cheap deal. And you put that money on top of a 30-year note just makes no sense to me. As a homeowner, I would not like a solar panel on my house. I’d rather go through a SolarShares program.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Crisand Giles, to be followed by Dr. Stephen Saffold -- Saffolo? Yeah.

MS. GILES: Hi, Crisand Giles. Thank you. I am in strong support of SMUD's application before you for consideration. I would also like to support the comments by CBIA this afternoon. We're pleased to see that SMUD has made it crystal clear that a homeowner receiving community solar from SMUD will be able to install one or more batteries in their garage.

We are also glad to see that SMUD has made it clear that the home buyer can add rooftop solar at any time, especially in the event that the homeowner wants to go all electric or buy electric vehicle at a future date.

Regarding the desire to have builders offer both community solar and rooftop solar as a design, please keep in mind that builders want to sale homes and rooftop solars are an amenity that's in high demand. Single family home buyers are still going to have rooftop solar in most of
their communities.

The builders that I represent are using this as an option in infill communities where you may want an amenity on your roof or you do not have enough placement or utility service accessibility in order to do rooftop solar.

CHAIR HOCHSCHILD: Thank you.

MS. GILES: It's an important part in an overall plan for --

CHAIR HOCHSCHILD: Thank you.

MS. GILES: -- infill development.

CHAIR HOCHSCHILD: Thank you.

Dr. Stephen Saffold, to be followed by Emily Fieberling of Environment California. Is Dr. Stephen Saffold here? No? Okay. While we're waiting is Emily Fieberling here? Yes, go ahead.

MS. FIEBERLING: Yeah, hello, my name's Emily Fieberling and I'm with Environment California, a state-based environmental organization that works for clean air, clean water, and protecting our beautiful places.

And sadly we'd like to ask you to not approve this proposal. To echo the 16 year old, I'm 23 and climate change is the focal issue of my life. The science is just too clear, we have to aggressively move towards 100 percent clean energy and 100 percent carbon-free economy. The SMUD proposal is presenting us with an either/or choice, rooftop
or (indiscernible) and we just don't agree with that. We need both. And in order to stave off the worst impacts of climate change, we need all the tools in the toolbox.

And then, too, echo the remarks of the senator, this proposal invites other rollbacks that dim our chance for doing the hard work that needs to get done.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Ben Davis, to be followed by Marty Crowdis.

MR. DAVIS: Good afternoon, I'm with the California Solar and Storage Association.

We remain opposed to SMUD's SolarShares proposal and I will narrow it down to one reason which is that SolarShares fails to meet three of the six criteria for an eligible community solar program. We have submitted our public comments detailing our position on this and for this reason alone, we request the Commission disapprove SMUD's SolarShares proposal today.

To, also, to the extent that there is ambiguity in the standards that is leading to confusion as a market -- in the marketplace which I think there is, we strongly request the Commission take time now to eliminate that ambiguity before new programs are approved and introduced to the market.

From the industry point of view, it is far better
to set clear market signals and clarify the intent of the Commission now instead of waiting until project and programs that do not meet the spirit and intent of this program are up and running. Clarity and certainty are critical ingredients to an emerging market --

CHAIR HOCHSCHILD: Thank you. Thank you. Sorry.

Let's move on to Marty Crowdis --

MR. DAVIS: Thank you.

CHAIR HOCHSCHILD: -- followed by Alex Kaffka.

Is Marty Crowdis here or Alex Kaffka?

Yeah, Marty, go ahead.

MR. CROWDIS: Hi, my name is Mark Crowdis. I'm with Turtle & Hughes.

I suggest you reject the proposal simply based on economics. I'll point out a couple of things. One is energy storage helps you, SMUD, complete your mission. Right now energy storage paired with solar as maximum and as large as we can gets the ITC. So if you do this, you're blocking some amount of the money that can come from the federal government to SMUD and to the territory for storage to help you complete your mission. That's point number one.

Point number two is jobs. So I've financed resi projects, I've financed utility scale projects, the number of jobs of resi projects and what that does for the economy
is hugely beneficial compared to what you do on a community scale solar.
So it's usually about five times as much labor goes into that than economic stimulus. I would suggest you allow as much solar as possible in roofs.
And then the final thing I'll point is heat load.
You can reduce --

CHAIR HOCHSCHILD: Thank you.
MR. CROWDIS: -- heat load with a lot of solar on the roof.

CHAIR HOCHSCHILD: Thank you.
MR. CROWDIS: Thank you.
CHAIR HOCHSCHILD: Did Dr. Stephen Saffold reappear? No? Okay. Going once, going twice.
Alex Kaffka, to be followed by Alan Escarda.
MR. KAFFKA: Thank you. Alex Kaffka, Verdara Partners, we're an energy consultancy for large commercial landlords.
I oppose the SolarShares proposal as structured.
And I would actually like to echo Scott Wiener's comments as well. California has really proven the model with the California solar initiative that it turns out government can really effectively stimulate widespread market adoption of socially beneficial technologies using market tools.
In response, entire industry has and will -- has
created itself innovated and aligned behind that decision. SolarShares directly goes against that model by locking customers into SMUD's central generation program for 20 years. It also eliminates market choice in Sacramento, deliberately hurts the industry and endangers the state's zero net energy goals.

I urge the Commission to have SMUD amend its proposal to allow customers to depart the SolarShares program using a simple and easy to file three-month --

CHAIR HOCHSCHILD: Thank you.
MR. KAFFKA: -- notice to depart.
CHAIR HOCHSCHILD: Thank you.
Let's go to Alan Escarda, to be followed by Tim McKeever, to be followed by Don Osborn.
MR. ESCARDA: Good afternoon. My name is Alan Escarda. I oppose SMUD's revised SolarShares proposal. First I'd like to acknowledge Commission for showing leadership in supporting the new solar bill requirement. I think we need bold leadership now and in the future to combat the challenges of climate change.
First, I don't think implementation, SolarShares is going to prevent the construction or the selling any new home or apartment, the ban is just too great.
The other thing is I'm looking at your website and it says your mission and goals and I'm paraphrasing this.
You are to promote alternative energy to the maximum public benefit. Well I see the net result lower shares will prevent rooftop solar, preferably find rooftops that can have new solar not being built, while SMUD then is going to have a solar farm that could be used instead to replace their fossil fuel power plants.

CHAIR HOCHSCHILD: Thank you. Thank you.

Let's move on to Tim McKeever, followed by Don Osborn.

MR. MCKEEVER: Tim McKeever, I'm a project developer with Sunworks Solar Power. We install a lot of solar in the area.

Community solar was never intended to be utility owned and through the solar mandate, it was intended to be an exception where solar was not practical for those new construction properties. It should definitely be an option for those that don't have enough roof space or are shaded or what have you. But the spirit of the mandate was to build local solar, have homeowners reflect savings on their bills instead of having that savings go to the profit margin of the -- of the utility.

SMUD would just be a stepping stone to all the other utilities trying to circumvent that law and I support the rejection of this proposal.

CHAIR HOCHSCHILD: Thank you. Thank you.
Let's go to Don Osborn, to be followed by Tony Hamirano. (phonetic)

MR. OSBORN: Hi. Don Osborn, Spectrum Energy. I'm also the former manager of the SMUD solar programs.

First off, I'd like to point out that the instant local self-reliance, the nation's foremost promoter and advocate of community solar has this to say, quote, "SolarShares should not be mistaken for a community solar program."

The SolarShares is the opposite of customer choice, it'll be nearly impossible for many solar -- customers to go solar plus storage for 20 years. SMUD's plans will offer home buyers a point of purchase options problematic at best. If rooftop solar is just another option, then why bother with a mandate, just require an equivalent increase in the RPS and be done with it.

SMUD doesn't allow VNEM, unlike 80 percent of the state despite (indiscernible) by Sacramento Affordable Housing Community. This is a major equity issue. While the CEC cannot dictate rates to SMUD, you do not have to reward this bad behavior. Readjust -- please reject this for now.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Tony Hamirano. I hope I'm pronouncing your name correctly, to be followed by Andrew
MR. HAMIRANO: Good afternoon. Thank you. My name is Tony. I work for SMUD as a facilities engineer. I support the SolarShares program because it's a benefit for our customers. It provides solar energy from solar rays connected to the grid giving the customer the option of green energy and savings and also by being with us, we provide continued maintenance support.

CHAIR HOCHSCHILD: Thank you. Let's move on to Andrew Christensen to be followed by Justin Hirschi.

MR. CHRISTENSEN: Andrew Christensen with Vivint Solar.

The purpose of my testimony is simply highlight the difference in value proposition between SMUD's SolarShare proposal and the benefit of onsite distributor generation. While SMUD's increase to benefit of SolarShares to approximately $10 kilowatt or 30 to $40 annually, these benefits are still minimal compared to the benefit the rooftop solar can provide.

To compare, one of our primary products that we offer actually in SMUD's territory for new home builds is a zero percent escalator PPA. Under this with all the standard capacity factors, aggregation factors, and the 3 percent utility escalation, we assume the levelized value is $57 per kilowatt a year or $228 annual, about five and
half times greater than SMUD's SolarShares.

But the more conservative 2 percent utility rate escalation, we assume a levelized value of $46 a kilowatt or $184 annually. And this is important because the figures that are shown, these are lifetime savings, these escalate over time not just in the first year as the figures --

CHAIR HOCHSCHILD: Thank you.

MR. CHRISTENSEN: -- have shown. Thanks.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Justin Hirschi, to be followed by Paul Sullivan, to be followed by Lee Miller.

MR. HIRSCHI: Hello. My name is Justin Hirschi. I was born and raised here in Sacramento County, Citrus Heights homeowner and SMUD customer. I've worked for SMUD for 11 years, I'm a lineman there.

I support SMUD SolarShares, I hope that you do too. I, too, would like a green planet and like renewable resources. I don't see how having solar panels on a roof or community owned or nearby in the community would adversely affect that. Those are both moving forward towards a greener planet.

And I hope you support SolarShares. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Paul Sullivan, to be followed by
Lee Miller, to be followed by Kim Camatti.

MR. SULLIVAN: Paul Sullivan, 15-year solar industry veteran, early adopter, and SMUD customer.

Want to speak to two points that have to do with customer choice. Way back in 2005, I installed solar, put it on my original mortgage. It was basically even with that added cost on my monthly mortgage fee, I was 4X cash flow positive with that. So there's an added benefit, especially with the ability to deduct that interest cost from your taxes.

Second thing that hasn't been discussed yet today, there's been a recent study by Zillow about home value increase for solar between March 2018 and February 2019 adds approximately 4.1 percent of value so that a median cost of a home here in Sacramento is 350,000. That adds another $15,000 of value. So I oppose this in favor of customer choice.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Lee Miller, to be followed by Kim Camatti, to be followed by Stacey Reineccius.

MS. MILLER: My name is Lee Miller. I'm a SMUD rooftop customer.

And thank you, Senator Wiener for your rejection of this SMUD plan. Nothing in the SMUD proposal ends up being
a true community solar program. It only targets new
homeowners and multifamily dwellings. Community solar
provides homes with too much shade and that are
structurally not support -- cannot support panels access to
energy.

There is no -- there is no sharing in this
proposal, it still fails the community solar program test.
What's the point of making solar a building standard if it
negates rooftop solar efficiencies? Should we do the same
for installation, efficient windows, and lightbulbs? Why
is SMUD so dead set on keeping solar from being on -- being
a standard on homes? If approve -- if approved, it becomes
the standard for future community solar programs in
California.

SMUD cannot be allowed to monopolize community
solar development. New dwellings are perfectly suited --

CHAIR HOCHSCHILD: Thank you.

MS. MILLER: -- for solar and storage. Thank you.

CHAIR HOCHSCHILD: Let's move on to Kim Camatti, to
be followed by Stacey. Go ahead.

MS. CAMATTI: Hi, Kim Camatti, Material Specialist,
18 years with SMUD.

I just want to say first and foremost that SMUD
field employees are proud IBEW 1245 represented employees.
I know Wiener is gone but we stand with union brothers and
sisters from PG&E who are also here today standing with us.
The new SolarShares resources would be built by fellow union members, which is very important to represented employees. Highly skilled union workers building clean energy projects within SMUD service territory. And a SolarShare community will provide local clean power, providing local jobs, union jobs, benefitting our community.

And I ask that you approve SMUD's proposal.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's hear from Stacey Reineccius, to be followed by Shawn O'Neal, (phonetic) to be followed by Ardie Zahedani.

MR. REINECCIUS: Good afternoon, Commissioners, nice to see you again.

I stand here to oppose the program as currently described. There has not been enough discussion about the actual impacts on multifamily development, properly done solar plus storage and electric vehicles, which are also impacted indirectly by the lack of solar capacity and storage onsite in this proposal.

In particular, building owners and developers stand to gain an additional equity from the value of the solar that's put on place while greater savings than are being
proposed can be achieved for tenants.

So until those issues really can be talked through about the value for multifamily especially, I would oppose this program as currently proposed. Thank you.

CHAIR HOCHSCHILD: Thank you.

Shawn O'Neal, to be followed by Ardie Zahadani, to be followed by Stephanie Robinson.

MS. O'NEAL: Good afternoon, Shawn O'Neal, 19-year employee with SMUD, Cable Locator. I echo the sentiments of my colleagues, Kim Camatti, Christine Drapeau. I believe it's important to support the SMUD SolarShares program. Thank you.

CHAIR HOCHSCHILD: Thank you.

Ardie Zahedani.

MR. ZAHADANI: Chair and members, Ardie Zahedani, partner with St. Anton Communities. We're one of the state's largest affordable housing builders.

Almost all multifamily residential rental throughout the state with extremely low, very low, and low-income tenants. We have 2,000 units under construction now. And I just want to give you a clear cut example in my remaining 40 seconds of why you must support the SMUD proposal.

Our projects rely on tax credits and bond financing. But there is also a gap of funding that's
necessary, that's very difficult to find. There's no room
to apply $800,000 to a million dollars to each project to
have solar rooftop panels. The SMUD proposal works for us.
We have shovel-ready projects that are ready to go that'll
get shelved if you don't proceed with their plan.

I urge your support. And if you have any
questions, I'll be in the audience. Thank you.

CHAIR HOCHSCHILD: Thank you.

Stephanie Robinson, to be followed by Lauren
Randall.

MS. ROBINSON: Thank you. We've heard a lot of
environmental concerns today, but no one has yet spoken for
the trees. I'm here to do that. And I support this
proposal.

New developments have no existing shade that would
quality homes for an exemption. We need solar but it only
provides the singular benefit of energy production. Trees
provide our community with a wealth of benefits, including
energy savings and carbon sequestration but go beyond that
to touch on everything that makes our neighborhoods
livable.

We are already losing plantable space to smaller
lot sizes and infrastructure like fiber optic and 5G.
Requiring solar panels on every rooftop will only add one
more obstacle to tree planting. We do not have to choose
between trees or solar. We need a holistic multi-solution approach that allows neighborhoods to reap benefits of both.

The solar mandate will not be undermined by allowing community solar but the overall livability of this region will be threatened if we continue to interrupt plantable fees for trees.

Thank you.

CHAIR HOCHSCHILD: Thank you.

We'll move on to Lauren Randall, to be followed by Fernando Enriquez.

MS. RANDALL: Great. Good afternoon, all, I'm Lauren Randall with Sunrun. In addition to supporting my colleague Alex's comments I want to underscore Mr. Mack's comments from the CPUC. Unlike IOUs, CCAs could propose something similar to SolarShares without regulatory oversight within months. This is a dangerous proposition. I urge you to consider the precedent you're setting today and unintended consequences it could propel for now 25 percent of the market.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Fernando Enriquez.

MR. ENRIQUEZ: Hi. My name's Fernando Enriquez.

I'm a 17-year IBEW member and I support the SMUD SolarShare
program.

My wife works in a roofing company, she has her own company, tells me about all these nightmares about incompetent installations of solar panels on roofs and this would benefit the community a lot by reducing all that maintenance and also having a lot -- making everything a lot greener.

So I support this.

CHAIR HOCHSCHILD: Thank you.

Let's go to Rene Martinez, to be followed by Laurie Litman, to be followed by Rachel Patten.


MS. LITMAN: Hi. I'm Laurie Litman. I'm President of 350 Sacramento.

I support Senator Wiener's statement. We're in a climate emergency. California has been leading the way and the world looked up to us when we passed the solar homes mandate. Now this threatens to undermine that -- sorry, my voice goes out when I speak.

It threatens to undermine the solar homes mandate, undermine solar on rooftops, and that's not acceptable. We need -- we do need utility scales solar, homes like mine with shade don't allow solar but we also need solar on every rooftop that's available. We need it all. And again, we're in an emergency --
CHAIR HOCHSCHILD: Thank you.

MS. LITMAN: -- we need to do this now.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Rachel Patten, to be followed by Lhondin Tyra.

MS. AVALOS: I'm Rosemary Avalos representing the Public Advisor's Office reading public comment for Rachel Patten.

"Rooftop solar requirements will lead to small or no trees being planted in new development and result in mature trees being cut down when they shade panels. "A sustainable future depends on a holistic approach to climate solutions. Our strategies for addressing climate change must work successfully together for our community to receive the maximum benefits they provide us. Implementing progressive solar programs in a way the uplifts and promotes urban trees will increase the health of neighborhood -- our neighborhoods. "SolarShare will achieve this dual goal in a way that rooftop solar will not. It will increase renewable energy, reduce costs to residence, and allow trees the space to continue cooling our neighborhoods and cleaning our air."

CHAIR HOCHSCHILD: Thank you.

Let's move on to Lhondin Tyra, to be followed by
David Wright, to be followed by Bret Barrow.

MS. TYRA: Hi, I'm Lhondin Tyra and I'm with IBEW 1245 and I stand in support of SMUD's proposal.

CHAIR HOCHSCHILD: Thank you.

David Wright.

MR. WRIGHT: Good afternoon. I'm David Wright. I'm a retired environmental scientist. I want to read a little piece of an email from a SMUD board of directors. It says, "What developer is not going to choose the cheaper, easier option. There may be many reasons for a developer to offer rooftop solar but why should we not offer a cheaper, easier option?"

So I think this points out very clearly that what you are in danger of doing is gutting the solar and new homes residential mandate. I'm also concerned like other people about affordability. I don't have any financial stake in this game, but I know as a solar PV user, that it's cheaper to be a solar PV user. And you saw the numbers yourself, it's $50 a year cheaper or more to be a solar PV user. So the affordability is on the side of the rooftop solar.

And in terms of multifamily, SMUD is denying VNEM so maybe that would help --

CHAIR HOCHSCHILD: Thank you. Thank you.

Let's go to Bret Barrow to be followed by Jasmine.
MR. BARROW: Mr. Chair and Commissioners, Brett Barrow with the California Chapter of National Electrical Contractors Association.

NECA has 16 regional chapters that represent over 1200 electrical contractors throughout the state. Our members include both C10 electrical contractors as well as C46 licensed contractors who install both rooftop and utility scale solar energy systems. And on a megawatts basis we're the largest installers in the state.

NECA supports the SMUD SolarShares program that includes participation, utilities scale, solar projects, and provides more cost-effective benefits to homeowners. Ultimately the state's goal is to address demand and reduce greenhouse gas emissions. And -- and it's not about replacing utility grade with rooftop solar.

And lastly I wanted to say, the option -- the community solar option allows our contractors to provide well-paid living wage jobs and benefits and to continue to train and provide jobs for skilled workers in these realms. For those reasons, we support this proposal.

CHAIR HOCHSCHILD: Thank you.

Let's go to Jasmine Strickland, to be followed by Charlotte Stevens, to be followed by Ray Tretheway. Is Jasmine here? If not -- no? Okay, Charlotte Stevens, to
be followed by Ray Tretheway.

MS. STEVENS: Good afternoon. My name is Charlotte Stevens. I am a member of IBEW 1245, a SMUD customer, and as well I'm an employee at PG&E.

I work in the call center at PG&E so I'm constantly speaking to customers that have -- are struggling paying their bill. The rates are high. A lot of them are low-income customers that are just struggling, having a hard time. So I stand in support of SMUD's proposal and with my brothers and sisters at SMUD. Thank you.

CHAIR HOCHSCHILD: Thank you.

Ray Tretheway to be followed by Jim Adams.

MR. TRETHEWAY: Good afternoon, Commissioners. Ray Tretheway. I'm representing Sacramento Tree Foundation in support of this project.

You may be surprised that I called on SMUD to support this project, I didn't call on me. We have a partnership for over 30 years planting 600,000 shade trees for their customers. It's so important to us because the direct health of a neighborhood is linked directly to how much tree can be in the neighborhood. The scientific evidence is overwhelming. Cardiovascular disease is decreased. A person's weight in health is better. A person's mental health is better.

And we believe that if we could have an option for
the consumer that they may well choose like most of all of us choose, leafy neighborhoods, leafy yards, and have an affordable cost-effective option. So we're very supportive. Thank you.

CHAIR HOCHSCHILD: Thank you.

Jim Adams, to be followed by Jane Lamborn, to be followed by Joe Dixon.

Jim Adams here? Going once, going twice.

Jane Lamborne.

MS. LAMBORN: Hello, my name is Jane Lamborn. I'm a resident of Wilton.

I support Senator Wiener's comments and I ask you to reject this proposal. I've been a resident of Sacramento and a customer of SMUD for over 35 years. I've lived at many locations within the county. I'm a retired state worker. I've been active with many community groups over the years and consistently when I talk to these people, they are very concerned with climate change, with the impact this is having, and they want to prevent it, and they see the need to do this sooner than we ever thought we would have to.

Along with this concern, they consistently say that -- you know what else they consistently say? Quote, "But what can I do? How can my small actions make a difference?" End quote. Rooftop solar gives them an
option that they can do. I put rooftop solar on my house
four years ago, it's been a benefit to me. Other people
want that benefit, they want to do it. This proposal
hampers that option for them. I ask you to reject it.

CHAIR HOCHSCHILD: Thank you.

Let's move on to Joe Dixon to be followed by
Jonathan Gemma.

MR. DIXON: Hello, and thank you for your time. My
name's Joe Dixon. I'm a 15-year employee of SMUD, 15-year
member of IBEW 1245.

I stand today with other SMUD employees, customers,
and this awesome organization I work for in support of this
SolarShares program.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Jonathan Gemma, to be followed by Alex Abrego, to
be followed by Paul Galor -- Geller.

MR. GEMMA: Good afternoon, name's Jonathan Gemma
with Aztec Solar. We're an installer, developer who
installs residential and commercial projects up and down
the state including here in SMUD territory.

I thank you for the opportunity to voice our
opposition of the proposal, and request that that you
disapprove the application. The building efficiency
standards or commission has approved such as the new home
solar mandate was intended to lower greenhouse gas emissions as well as create market driven environment for consumers, not developers, would have the choice in energy efficiency options that would include in their new home. In anticipation of this new mandate, Aztec has spoken with numerous developers about onsite solar options, the proposal option, all those discussions have stalled and can potentially eliminate any choice a consumer may have. This decision is precedent setting. Not only effects the decision in SMUD territory but up and down --

CHAIR HOCHSCHILD: Thank you.

MR. GEMMA: -- the state.

CHAIR HOCHSCHILD: Thank you. Thank you.

MR. GEMMA: Thank you.

CHAIR HOCHSCHILD: Let's move on to Alex Abrego to be followed by Paul V. Geller.

MR. ABREGO: Good afternoon. My name is Alex Abrego and I support this proposal and I ask you to please approve it. Thank you.

CHAIR HOCHSCHILD: Thank you.

Paul V. Geller, to be followed by Harold Thomas.

MR. GALLEN: My name is Paul Gallen. (phonetic) I'm a retired IBEW 37 years. Excuse me, and I'm in favor of this proposition. Thank you.

CHAIR HOCHSCHILD: Thank you.
Harold Thomas to be followed by Mary Gallen, is Harold Thomas here? Going once, Mary Gallen?

All right, let's move on to Ken Rawles, to be followed by Megan Shumway, to be followed by Austin Avery.

MR. RAWLES: I'm Ken Rawles. I'm retired IBEW 1245 37 years.

I live in Santa Rosa, but I just want to say that I hope we someday have the same kind of an option. As a senior, I'm 77 years old and I don't know that it would be benefit me to pay for rooftop installations, but it would benefit for me to take the other option. And I do fully support this.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Megan Shumway, to be followed by Austin Avery, to be followed by Jean Cunningham.

MS. SHUMWAY: I'm Megan Shumway and I'm with the Climate Coalition and Solar Rights. I'm a solar panel consumer.

People have said a lot of things today, but one thing they have not said is they seem to be having trouble with the definition of community solar. Community solar should be for the units and the owners of those units to manage to manage like an individual homeowner would manage their rooftop solar. And it should not be part of a

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utilities purview. An application for a community solar project should be and by the builders of that particular community and taken over by the homeowners in that community or the building owner.

I don't think that you should support SMUD's proposal because they need --

CHAIR HOCHSCHILD: Thank you.

MS. SHUMWAY: -- to pay attention to their own --

CHAIR HOCHSCHILD: Thank you. Thank you.

Austin Avery, to be followed by Jean Cunningham, to be followed by Telia Ford.

MR. AVERY: Good afternoon, Commissioners. My name is Austin Avery with Turlock Irrigation District.

TID is proud to be here expressing our support for SMUD's Neighborhood SolarShares program, and we urge the board to adopt SMUD's application at today's meeting.

With policy directives calling for our state to see massive emission reductions over the next 25 years, the crucial component to success rests with the idea of innovation. SMUD's Neighborhood SolarShare program puts the principle of innovation into practice with their investment into solar generation. The structural design of SMUD's programs not only adheres to state regulatory directives, but it also ensures costs are borne equitably among SMUD's ratepayers.
TID's own investments in renewable future are closely aligned with our colleagues at SMUD and as such are proud to express support for their Neighborhood SolarShares program.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Jean Cunningham, to be followed by Telia Ford, to be followed by Juan Carlos Montero.

MS. AVALOS: I'm Rosemary Avalos representing the Public Advisor's Office providing public comment on behalf of Jean Cunningham.

"I would like to register my support for SMUD SolarShare program. Two things Sacramento and the United States and the world desperately need are shifts to renewable energy to curb greenhouse gas emissions, and more forests to diminish CO₂.

"These are not mutually exclusive goals. A plan to boost solar availability and new construction is essential moving forward but there needs to be a plan which will save existing trees and promote the expansion of Sacramento's urban forest. Trees are the lifeblood of a community in so many ways. They provide shade, livable communities, habitat for wildlife, and most importantly a beautiful and natural way to sequester CO₂. SMUD SolarShare can achieve these -- both these goals. I respectively ask for your
CHAIR HOCHSCHILD: Thank you.

Let's go now to Telia Ford, to be followed by Juan Carlos Montero.

MS. FORD: Hello, my name is Telia Ford. I'm a SMUD employee as well as a SMUD customer, and I support the SMUD SolarShares program. Thank you.

CHAIR HOCHSCHILD: Thank you.

Juan Carlos Montero to be followed by Emily Edmond.

MR. MONTANO: Hello, my name is Juan Carlos Montano. I'm a SMUD employee and union IBEW member for three years now. I've also been a SMUD customer for the last seven years.

And as an employee and customer of SMUD, I believe SMUD is committed to solar energy and the reduction of greenhouse gases, and this is just one step where SMUD will be able to get closer to zero percent greenhouse gases.

And I support SMUD SolarShares. Thank you.

CHAIR HOCHSCHILD: Thank you.

Emily Edmond to be followed by Troy Hearne.

MS. AVALOS: Rosemary Avalos, representing Public Advisor's Office reading public comment for Emily Edmond.

"I strongly support the SolarShare program. SolarShare panels and trees are both important. Trees not only provide ecological benefits, they also provide..."
emotional economic benefits to those neighborhoods who are lucky enough to have an abundance. And every neighborhood should have enough trees. Thank you."

CHAIR HOCHSCHILD: Thank you.

Troy Hearn, to be followed by DeVaughn Cross, to be followed by Fred Ross.

MR. HEARNE: Hi. My name is Troy Hearn. I'm a 17-year SMUD employee, 17-year IBEW 1245 member and I am here to support SMUD SolarShares program.

CHAIR HOCHSCHILD: Thank you.

DeVaughn Cross.

MR. CROSS: My name is DeVaughn Cross. I'm a 17-year member of SMUD, and I'm here to represent 1245. Something about SMUD is and their statement when they say that they are community owned and they put community first, I see it firsthand. I've sat in a lot of meetings where the decisions that they make are truly about the ratepayers and the community.

So saying that, I think you guys should approve the Neighborhood SolarShares program. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to Fred Ross to be followed by Victoria Vasquez.

MR. ROSS: Good afternoon. Fred Ross, staff for IBEW 1245. I'm proud to stand with our sisters and
brothers from SMUD in support of this proposal. Thank you.

CHAIR HOCHSCHILD: Thank you.

Victoria Vasquez, to be followed by Ruth Bailey, to be followed by Mike Monagan.


"As an environmental community organizer in Sacramento, I have taken many calls from owners of new homes with limited greenspace whom request trees. They are frustrated to find out they cannot plant trees without impacting their solar panels. Trees increase shade in the summer and warmth in the winter.

"I am ready to support SMUD's SolarShare program so that solar energy can be harvested without impairing trees use as our natural climate solution. Trees provide many public health benefits both physical and social. I hope you will make the right decision in forwarding Sacramento's legacy as the city of trees."

CHAIR HOCHSCHILD: Okay. Thanks everyone for their patience. We're getting close. We're getting close, just a few more here.

Ruth Bailey, to be followed by Mike Monagan, to be followed by Steve Uhler.

MS. BAILEY: Hello, my name is Ruth Bailey. I'm
here in support of my fellow IBEW Local 1245 sisters and brothers. I am a 30-year employee of PG&E. I'm retired 9 years.

I am here to support them for the workers. That's been a lot of your time and energy supporting this initiative and I do support it and I hope that you can pass it.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Mike Monagan.

MR. MONAGAN: Mr. Chair Members, Mike Monagan on behalf of the California State Association of Electrical Workers and the Coalition of California Utility Employees which are the (indiscernible) groups for the all the IBEW locals in California, including the brothers and sisters of 1245, the 550 IBEW members who work for SMUD.

It's important to note that these members, skilled and trained, are the ones that actually install and maintain these systems efficiently and safely. They put in a lot of time in the apprenticeship programs. It's a big commitment by the employers and the members themselves and the results are pretty self-evident. We urge your support.

CHAIR HOCHSCHILD: Thank you.

Let's go to Steve Uhler, to be followed by Bernadette Del Chiaro.
MR. UHLER: Steve Uhler, now for something completely different. The tax issue. The calculations that will go on to the 60-plus dollar charge, county exempts up to $45 for utility charges. City has taxes on those. I've asked for the calculations for those. Fortunately, no matter how you vote here, they still have to make the CBECC program operate with this. So I'm looking forward, I have a public records request in for both with SMUD. Perhaps President Kerth will see that that's fulfilled for those calculations. I was given no calculations. It's docketed. And also you should pay attention to the SMUD executives talking about the methods of how they bake the SolarShares into the rates.

Thank you.

CHAIR HOCHSCHILD: Thank you.

While Bernadette's coming up, just anyone -- the names I've already called but they weren't here: Mary Young, Harold Thomas, Jim Adams, Rene Martinez, and Stephen Saffold. If any of them are here, please come to the line. Bernadette? No, Bernadette should come now, if you want. And other person, get in line.

MR. DEL CHIARO: Good afternoon, Bernadette Del Chiaro, California Solar and Storage Association.

The proponents are trying to define this as a solar
versus solar decision which I would imagine would be a hard choice for any and most environmentalists to make. This is not solar versus solar. This is smart buildings of the future versus the dumb buildings of the past.

The Energy Commission hoped for innovative community solar projects to come out of the alternative compliance option. All you're getting today is a very commonplace utility scale project the likes of which the RPS will already support and bring to the floor.

If SMUD was offering to build a couple of extra turbines out in Solano County and attribute those electrons to a home in compliance with building code, would you be okay with that? This is a historic vote. Everybody, almost everybody that's come before you to support SMUD has done it at the rejection of the same old, same old arguments against rooftop solar. It's bad for trees, it's too expensive, it's only for the rich, it's bad for workers. These are false attributes --

CHAIR HOCHSCHILD: Thank you.

MS. DEL CHIARO: -- to solar, and I ask you to reject them. Thank you.

CHAIR HOCHSCHILD: Thank you.

Rene Martinez to be followed by Stephen Saffold.

MR. MARTINEZ: Good morning, Cruz Martinez, IBEW 1245 staff, also a proud 15-year Sacramento County
I strongly support SMUD SolarShare program. My personal story, I just purchased my home last year in Natomas. My option was rooftop solar. I did not want it. I was forced to get it. It was either $15,000 added to my mortgage or a 20-year lease at $55 a month. So if it was my option, I would not have gotten it. So definitely I ask for you approve the SMUD proposal. Thank you.

CHAIR HOCHSCHILD: Thank you.

Is Stephen Saffold in the audience? No? Jim Adams? No? Harold Thomas? And Mary Gallen. No? Okay. Then we have next is, and our final speaker in the room today is Rick Umoff.


Just wanted to quickly say we saw a lot of improvement in SMUD's revised application which we appreciate. We still remained rather concerned about the actionality issue. And we heard from SMUD that that's a result of the code and the way the code's written and the durability requirement. But we do think that's something that needs to be looked out is the customers being able to move in and out of the SolarShares program so they don't
get locked into that program.

Thank you.

CHAIR HOCHSCHILD:  Thank you.

Okay. Let's go to the phones. Rex Hime, to be followed by Shiva Patel, to be followed by Richard Skaff.

MR. HIME:  Am I -- am I on?

CHAIR HOCHSCHILD:  You're on. Go ahead, sir.

MR. HIME:  Mr. Chairman and Commissioners. I'm Rex W. Hime representing the California Business Properties Association and the Building Owners and Managers Association of California, and we strongly urge you to approve the SMUD program.

We do have a substantial interest in the development of mixed-use occupancies. Mixed-use occupancies are buildings where the first floor, it's commercial office space, two or three stories above it are residential units. If there are there stories or less of residential units, each of these residential units must comply with the CEC's new mandate for renewable energy component.

Many cases especially in the (indiscernible) project, builder would be dealing with tight locking constraints, bulky HVAC would have to go up on the roof, along with other roof obstructions.

And buildings, roof area will also be required to
have (indiscernible) walls, fire safety, and other fire
safety clearance requirement. Bottom line is in this case,
there will be minimal area remaining on the roof to allow
for the installation of solar EV panels, especially
considering that there are only two or three apartment
units located directly under the same area of roof.

Each commonly occurring constraints --

CHAIR HOCHSCHILD: Thank you, Mr. Hime. Sorry --

MR. HIME: -- over the building --

CHAIR HOCHSCHILD: Sorry. Let's move on to Shiva Patel to be followed by Richard Skaff.

Shiva?

MR. PATEL: Hi, my name is Shiva --

CHAIR HOCHSCHILD: Shiva, sorry, go ahead.

MR. PATEL: -- Patel for Center of Biodiversity.

CHAIR HOCHSCHILD: Go ahead.

MR. PATEL: And on behalf of our 100,000 California members, we urge to Commission to reject SMUD's SolarShare
-- Shares application as it will set a dangerous precedent
of other California utilities and does not do enough in
lowering environmental (indiscernible) to the community.

We also agree with the comments from
(indiscernible) California, Center for the American
(indiscernible) and Polarize Compliance.

Thank you.
CHAIR HOCHSCHILD: Thank you.

Richard Skaff to be followed by Michael Malinowski.

MR. SKAFF: Good afternoon, Mr. Chairman and Commissioners. There's a huge feedback problem, so I hope that can be fixed.

I am calling today to oppose the SMUD program. First, I want to ask the Commissioner -- whether the Commissioners would consider the unintended consequences of the SMUD revised SolarShares program. I believe that, based on what I've read, that it will result in fewer homes having localized solar which in the case when people with disabilities and seniors who depend on consistent electricity, those folks will be threatened with power when power outages occur because they will not be served with power by the -- the proposed SMUD solution.

Where if they had batteries in their home --

CHAIR HOCHSCHILD: Thank you, sir, I'm sorry.

MR. SKAFF: -- and for in their home that can --

CHAIR HOCHSCHILD: I'm sorry, you're out of time.

Let's go to Michael Malinowski, to be followed by James Adams.

Is Michael Malinowski still on the line? Sir, are you there? Mr. Malinowski? Going once, going twice.

Okay, let's move on to James Adams.

MR. ADAMS: For all the arguments that you've heard
today, I urge you to oppose SMUD's proposal.

CHAIR HOCHSCHILD: Thank you.

Let's go on to Esmeralda Plascencia.

MS. PLASCENCIA: Good afternoon, Commissioner. My name is Esmeralda Plascencia. I am a Sunrise Sacramento member.

As an environmental advocate, I have volunteered with Sac Tree Foundation. I am here to ask you to shut down your fossil fuel plants and transition to 100 percent renewable energy. I am support of rooftop solar power because I believe any person or business should be able to choose and easily transition into solar energy. SMUD has stepped in as a leader of reusable energy. I hope they can fulfill that reputation.

In addition to the concern about tree planting, (indiscernible) trees can still be planted and provide shade. We need to put an end to the solar inequalities distributed among our community. Please act as to this issue as quickly as possible.

Thank you for listening.

CHAIR HOCHSCHILD: Thank you.

Leslie Bryan is our final public comment.

MS. BRYAN: Good afternoon. My name's Leslie Bryan with the Redding Electric Utility, and we appreciate the opportunity to follow up on comments that we submitted to
the commission on January 23rd.

Once again we'd just like to urge you to approve SMUD's application for their Neighborhood SolarShares program. We consider SMUD's program to be a model that other utilities including ours can draw upon to provide affordable clean electricity in their own territory.

Thank you.

CHAIR HOCHSCHILD: Thank you.

Is there anyone else in the room wishing to make a comment who has not yet made a comment or anyone else on the phone?

Thank you. Let's just pause there. Everybody give yourselves a round of applause for getting through a long afternoon.

I want to say we heard a lot of really heartfelt commentary on all sides raising a lot of issues and there are, I think, a lot of common themes about what we're trying to get to as a state.

Before we turn to Commissioner discussion, I wanted just to give staff the opportunity to respond. If there are any points of information you'd like to clarify based on questions raised during public comments, or points that you want to respond to, Bill, Matt, Drew. If not, we can move to Commissioner discussion. Was there anything? Go ahead.
MR. PENNINGTON: So this is Bill Pennington, Energy Commission staff.

I just wanted to speak to comments kind of related to the requirements of the standards. So there were comments made by CalSSA's attorneys that called out arguments about why SMUD's proposal does not meet three of the requirements. And staff looked carefully at those comments and discussed them with counsel and we don't believe that those arguments really understand what the standards were doing. And I think Drew's presentation this morning, or at 1 o'clock was a good explanation of that and clarification of that.

The only other kind of comment in the record related to the stands requirements that I see as being incorrect is SMUD's findings that -- that the durability requirements do not allow and opt-out choice during the 20-year time period.

And in reality staff, does not believe that's the case. And basically if someone wanted to install a rooftop system that was compliant with the standards midstream of the 20-year time period, that would be a completely satisfactory outcome for accomplishing the intended standards. And we don't see any reason why that would be blocked by the standards.

We also think it would be maybe a little difficult
administratively to do but we really don't think it's overwhelmingly difficult to do. So staff can be completely prepared to work with SMUD to, and with our attorneys, to clarify how that could happen if SMUD chose to pursue that. Another thing we should say is that there's been comments, recommendations that we consider changes to the standards requirements to try to clarify those in the next upcoming building code cycle and staff is prepared to do that. And we think there's been good information pointed out about what people are misunderstanding and what could be improved. So we would to do that.

So that kind of puts -- if we decide to change the standards, that kind of puts a time limit on how long this approval, if you're going to approve this, would last and be in effect. If changes were made in the standards, then we would -- we would need to have any applicant that had been approved under the 2019 standards to come back and demonstrate they meet the requirements of whatever gets changed in the 2022 standards.

CHAIR HOCHSCHILD: Thank you. Let's go to Commissioner McAllister.

COMMISSIONER McALLISTER: Okay. Well, thanks everybody for coming. Certainly a lot of viewpoints. You know, this is an issue with many, many sides not just -- not just two. So, you know, there's sort of pro and con.
how everything shakes out.

But there are a lot of viewpoints about this issue and it's relatively complex. So I want to just, you know, the fact that many voices on all sides of this topic are here and motivated to speak with how important it is and how vital this topic is. And that's actually gratifying.

I mean, that's exactly what our process is supposed to embrace.

I want Drew, Building Standards Office staff. Bill, the Efficiency Division Management for sure. SMUD for, you know, bringing the original proposal, rolling up your sleeves, making some changes. And all the stakeholders who have sort of pointed out all the, you know, different issues and, you know, warts and all, right. So I think that's exactly the process that I think helps us get to a better outcome. So thanks to all the stakeholders.

I know a minute is not very long and thanks for trying to condense your thoughts and keeping on that time. Thanks to the Chair for holding people's feet to the fire on that.

So the -- I just have some comments, you know, having really, having gone through several cycles now since I came to the Commission. You know, the building standards update process is an incredibly robust, incredibly labor intensive, incredibly staff time intensive, and highly
technical endeavor. And Drew sort of described it at a high level but I think he captured it well. He did a lot of things.

The 2019 building standards were developed in a robust and multi-year process. CEC staff and everyone involved in massive lifting to get that done and get it across the finish line at the Building Standards Office. And, I'm sorry, at the Building Standards Commission. And, you know, the record behind the regulation is clear, it's robust, it's well supported. And the regulations themselves, the words have not changed since we adopted it in 2017. It's been here the whole time and we talked about every word along the way. They need to be implemented.

On community solar, the intent was actually explicitly not to proscribe a lot of details. We wanted the marketplace to figure out how to get this done. We wanted to see some innovation. We didn't feel that there was an ability to proscribe all these details. So, you know, to allow and encourage these issues to be sorted out via the process that we're going through right now.

There was intentionally. In the docket of the transcripts of those discussions, actually if you look at them now, they make an excellent read and they bolstered my confidence that we're on this solid ground here today.

I wanted to call out a couple of things that were
said along the way. We had a lot of comments, obviously, lots of content there, but I wanted to just raise a point that Ed Smeloff made and Bernadette Del Chiaro towards the end. You know, there is a vision of what our buildings are going to do. There's a clean and reliable grid and it's expressed through the building code. Energy efficient is and has always been top of the heap. Demand response, load flexibility, all these things that are part, fundamentally part of decarbonization are right there in the building code and will only get more there in the building code.

Solar is a piece of that as well, it's part of decarbonization puzzle. But I just -- I don't want it to, it's not a black and white thing, it's not a either or thing. It's really -- there are lots of paths to get the decarbonization. And I think we, we sort of miss the point if we take sides to sternly, I think, on one particular issue like this, that's part of a larger whole.

So, you know, these regs obviously have not been without controversy. Housing costs are a huge concern. There have been and there are currently legislative proposals to direct or limit the extent of the solar requirement or otherwise seek to reduce the cost of housing in different ways. So we're going to be with this issue. There are a lot of opinions and the legislature is going to keep weighing in on this. So issue of ongoing relevant and
I think we'd be wise to be sensitive to those efforts. The letter we received from Senator -- Dr. Pan and 31 other of his colleagues, you know, resonates. So a message I think that how important this is. Senator Wiener's presence here also, it's obviously an issue of continuing relevance.

I just want to point out, you know, this is not -- there are exemptions and there are alternative compliance pathways, right. This is not an exemption, this is alternative compliance pathway. So exemptions are you don't have to do it because you're shaded, or because your roofline or because, you know, some reason where -- or you have really cheap power, you know, like with Trinity PUD. You know, we granted them exception, the cause in pencil. That's not what we're doing here today. It's true compliance with a code and it's right there in the plain language of the regs.

So now, you know, we're considering the first application, and, you know, staff argues I think persuasively that it does satisfy the criteria that are laid out in the regs. It is additional solar, saves the homeowner money from day one, right out of the gate.

And I want to kind of, you know, there were years of conversation about community solar through (indiscernible) bill that now, you know, became law in sort
of a different form that it started out. But this is a rate that's being offered to homeowners, to buyers of new housing that's actually cheaper than the standard nonsolar tariff. So that's actually, that's a milestone. I think we have to appreciate that that's an important milestone and reflects that there are multiple ways to achieve solar homes cost effectively. And that flexibility is a hallmark of good regulation. I think we, you know, again the intentionality was there as we managed this conversation. You know, the process, listens to the breadth of stakeholder opinion.

So SMUD made this point and I'm not sure it kind of got repeated, but I wanted to just highlight that -- that this idea that net metering is completely off the table, doesn't -- is not the case and I appreciated the explanation there. You know, 2.8 kilowatts is not a very big solar system. And so most people's consumption, I think Mr. Raymer made that point that we really need -- it is both and it's not either/or. Because in order to cover the load and fully electrify, if that's what your project is, or fully decarbonize, you're going to need more solar than just that minimum community solar.

And whatever the headroom is above that up to your net metering cap, which is much higher, is going to be -- it's going to be able to access net metering. So I think
that -- just to be clear. So staff described that as well as SMUD.

Also I wanted to, kind of checking my box of things I wanted to point that weren't really said through the course of the comments. But other versions of community solar, we would welcome those applications. You know, it doesn't have to be a utility that brings it. I could be a developer, it can be, you know, some of the models that people, people have brought up during their comments. I think, you know, I personally, and I imagine some of my colleagues, would love to see those applications that actually do, you know, a smaller scale, more localized, different kind of business ownership model, different kind of compensation model. I think if those could check the boxes and the regs or if we see fit to revisit those boxes going forward, then we'd love to be able to, you know, allow those flowers to bloom as well.

A couple of items, I think, of ongoing discussion. Bill brought one of these midstream opt-out. Just -- I agree with what Bill said and I think, you know, if five years from now a whole bunch of folks who are buying these new homes that come in, you know, the buyer of the then-existing home that's got this community solar commitment. If there are 1,000 people knocking on SMUD's door saying, hey, I want to opt out of my community solar
and get PV, I'd hope that you, you know, look at some
flexibility there and see if there's a way to work with
that.

Again, it's a program design, it's not -- it's not
our authority to tell you to do that, but I think just as a
consumer, as a consumer responsiveness point, that would be
good. You know, as long as that PV is committed for at
least a remainder of the 20 years, it would meet our
durability requirement.

And, you know, frankly I feel like part of what
we're doing here is running traps for SMUD and I just
wanted to like encourage the public process at SMUD to be a
little more robust before you kind of bring it to us.
Because I feel like there's a -- there's a dynamic here
that's not altogether sort of positive in the
dissatisfaction with SMUD that we heard, you know, have
those conversations out in the public -- in a public forum
to run those traps before you weigh in.

So, you know, so I would encourage SMUD or that
SMUD open more dialog to anticipate smooth out any
frictions going forward with its community solar program
implementation. I think those details really matter,
implementation really matters and being responsive to the
marketplace in a substantive way matters.

So I appreciate our second issue is really one of
precedent and all I want to say there is that it's not really our role to make decision that speculate about what may or may not happen out in another agency or in the marketplace. I mean, I think we try to, you know, keep our ear to the ground, but I appreciate Grant Mack being here from the PUC to give us a little orientation there. But I think we have the ability to pay attention to how things evolve going forward. If there are big distortions in the marketplace, if there are these, you know, unintended consequences, we'll know about them, you'll tell us about them. And we're already in the conversation with about the 2022 code, that's already happening. And if there are things that, you know, the vagueness of the 2019 code in this respect, you know, if there's an ability to get some consensus and tighten things up or be more specific about certain aspects, that can be part of that conversation if it looks like that would be advantageous.

So I'm getting -- I'm getting close to the end so thanks for bearing with me. So I'd like to wrap up my comments really on a positive note. And I'm actually incredibly optimistic about where we're going. The challenges are huge. I mean, the representative, the 16-year-old, you know, representative of our youth today, I really am sympathetic. I've got a 13 year old and a 16 year old. I mean, you know, we're not -- we're not leaving
the best future for them if we don't get our act together.

And so we, but yet we're in California, we have a lot of tools. I think it's really a sense of mission. And all of us in this room, even though we're fighting about this particular issue, we're on the same team. So, you know, this process continues after today. You know, this is a moment in a continuum, right. It's a snapshot, but really the long-term commitment that we all have is what we need to keep our eyes on.

The 2022 code cycle, as I said, is already underway and, you know, we'll have the evidence and if needed the discussion can consider updates and changes. The code update process can capture that.

I'm going to suggest that we, every year or so or ever so often, whenever necessary really, we can have an informational item on a business meeting or we can update on how it's going, how implementation is. Maybe SMUD can come in and talk about the numbers. Other stakeholders can come in, be good to get a handle on the low-income, the multifamily, how things are moving along with respect to this as a piece of the overall building standards project.

I do believe with all that said and sort of trying to put this in context, I believe that history will look back on what we've done in its sum total and we'll see some wisdom in how we've approached this.
You know, more broadly, building decarbonization is a huge topic, it's a huge project for the state, certainly for the CEC. And it's bigger than today's discussion I would argue. And, you know, we have AB 3232 to decarbonize our buildings. We've got Title 24, 2022, we've got SB 100. We've got all of these efforts that are all, you know, tied up together, they're all related.

You know, we have -- we have huge needs for multifamily housing for housing construction across the state. You know, this is but one piece of that. And responding to the climate crisis and really focusing on decarbonization is going to be policy in California for -- from here on out. That's not going to change. So multiple paths can get us there and our project is to decide which paths are the best ones.

So finally I just wanted to remember that -- I want to remind everyone and remember myself that we make the most progress when we all try to row in the same direction. We need to be able to talk to each other. Sometimes we have to agree to disagree. Maybe there's some of that might happen today. I do worry about polarization. You know, that's sort of the theme of our time. It's unfortunate. And we need to try to do our best to maintain some middle ground. And, you know, tomorrow we could face an issue around which we really need to be on the same
team. The federal government could come calling to undermine our authority to do something important.

And so, I think, you know, we need to make the effort to understand one other, keep lines of communication open, tend the fields of California's diverse clean energy landscape and so that all its many flowers can continue to bloom. So that's the context that I see this conversation in. I think we're doing something important really regardless of what we do today. I support this item. I think that's it -- it reflects a lot of work and committed to making (indiscernible) from my perch at the Energy Commission.

But I want to just thank you all again for being here and for your roles in moving California towards the clean energy future that we all want for ourselves, and our kids, and grandkids.

So thank you.

CHAIR HOCHSCHILD: Thank you. Other Commissioner comments? Commissioner Douglas.

COMMISSIONER DOUGLAS: So I appreciate Commissioner McAllister's comments and his leadership in getting this package across the finish line.

This was very big deal for the Commission when we adopted the standards with the solar requirement and it's now in effect. It's really only been in effect in 2020,
for a few weeks. And I remember clearly as well that the community solar aspect was deliberately designed as a compliance pathway, not an exception. And so for example we have exceptions for when it's too shady, for example, and you can't put solar in the building. But there are a couple of reasons why I thought at the time and still think it's important to have alternative compliance pathways.

You know, one is that it allows builders to avoid using an exception. So instead of utilizing an exception, they can use this pathway and they can actually comply.

And secondly, at the time that we adopted the standard, and you know, even today, I'm not utterly confident, I've heard some speakers in the room say, you know, I'm not utterly confident that everyone would chose the house with a panel on the roof. I think most people would, I think many people would. I think the builders have said it's an amenity that customers are looking for. Nevertheless providing some flexibility as we forward into this mandate so that there can be responsiveness to the market if it is true that it is a much better deal for consumers to have a panel on the roof in general, then those are the houses that'll sell. And the builders know that.

And one of the things that I like about some of the changes that SMUD made was the commitment to work with
builders to find ways to allow the point of purchase option. I think where -- where it works, people are generally going to want the solar and that's what we're going to overwhelmingly see.

But we are move -- this is a transition, this requirement actually hasn't been in effect all that long, and it's a big change. It's a welcome change. It's a change that we've worked very, very hard at the Energy Commission to foster.

So I'm the attorney commissioner so I'm the one who also looks at these things sometimes from the really boring okay what exactly did we write perspective and how exactly are we applying it and are we applying it the way we wrote it. Because if we're not applying it the way we wrote it, then we can't do that. And so I have gone back and looked carefully at the language and carefully at the requirements that we set out. And we didn't say that if somebody comes forward with the application that meets these criteria, we may approve it. We said that if it meets the criteria, we shall approve it.

So at one level, I'm really looking at it at the pretty mechanical aspect of okay does this application meet the criteria. And I'm also hearing very much from speakers in the room that there are things that are not either very good at all or perfect of whatever it may be in terms of
some of the program design. That's something, and
Commissioner McAllister said this maybe in slightly
different way, but that's something we would encourage you.
You know, we're not, at the Energy Commission as a state
policy and regulatory body, designing these programs.

You know, we are fundamentally saying, does it meet
the criteria that we set out? Yes or no. Is there a
better way to do it? That's a community conversation and a
conversation with SMUD. And it's one that we hope SMUD
will continue to have with the community.

I heard a lot of suggestion that the Energy
Commission could consider clarifying some aspects of what
we set in the standards. I heard and welcomed the
commitment by staff to do that. That's not something we do
today. You know, I mean, we can of course think about it
today. But there's a lengthy and exhaustive public process
to do that. And I think everyone here should hear the
commitment from us to engage in that.

At the time that this set of standards was adopted,
you know, the concept of what was -- what is community
solar was, I think, evolving and it still is evolving and
it still is something that is a robust policy discussion.
We set a marker in a place and adopted the standards and so
that's where we are today. It doesn't have to stay there.
And so I do think there's a worthwhile conversation and we
have heard a lot that will allow us to continue to improve
and continue to develop in terms of how we see the policy
around that set of issues.

And then of course when we adopt it, it'll be in
effect and I'll be the attorney commissioner saying well,
what exactly did we write? Because that's what we --
that's what we need to do.

So I -- I want to say, maybe I should have started
with this, I really -- I really appreciate the passion
around this issue from all of the speakers and the
commitment to action on climate change. The state of
California is determined to make a difference and we're
going to -- we're going to continue to exercise our
leadership. Everybody sitting here on this dais is here
because we think is the most exciting opportunity we have
to make a difference ourselves on climate change and
through the Energy Commission and through the state of
California and working in partnership with all of you. And
that's what -- that's our ongoing commitment here and going
forward.

So -- so those are my comments for now.

CHAIR HOCHSCHILD: Thank you.

Vice Chair Scott?

VICE CHAIR SCOTT: Sure. I also want to say thank
you to everyone who came out to provide comment to us
today. It's really important. It's excellent, I think, to hear the dedication and the passion and the commitment of all of the folks around the room. And also to everyone who submitted detailed written comments to us on the docket. It's very much appreciated.

I want to thank our Efficiency Division staff and also SMUD for working together to bring a revised, and in my opinion, much approved proposal to us for consideration today. You've heard this and so I won't echo too much of what you've already heard. But, you know, to meet our clean energy and our climate goals and to do it in the most cost-effective ways, we need every option available to us. I think rooftop solar, community solar, every carbon-free resource that we can muster.

And what we're doing with the building standards, I think in the proposal that's before you today with rooftop solar and community solar, it is still at the forefront. I think this is something that's bold, it's cutting edge. It's something that we haven't seen folks do before. And I do want to echo what both Commissioner Douglas and McAllister said about the difference between the compliant, sorry, between the compliance mechanism and an exception. And I think again that goal of adding our community solar compliance mechanism into the building code was to create more options. And I think that's what we're doing here.
I'm persuaded that with the changes made and the additional commitments, the clarifications that were added, that this does meet the requirements of what we said in our building standards.

I also want to recognize that this round, this first round may not be perfect but I don't think we should let perfect -- the perfect be the enemy of the good. I do think that we want to closely monitor the implementation of the program so I want to echo Commissioner McAllister's call for potential informational items or other ways for us to really check in and hear how it goes.

I'm mindful of what we heard about the cautions about a precedent and how is this being implemented, what comes out of it. And our point here is really to decarbonize, right? Decarbonize in the most affordable and reliable way and we need to make sure that that's what's happening. So I appreciate the checkpoints that we have discussed.

And I also want to just say thank you, Commissioner McAllister to you for your leadership and your dedication in this space. It's really, you're fantastic.

CHAIR HOCHSCHILD: Thank you.

Commissioner Monahan.

COMMISSIONER MONAHAN: Yes, well, I want to start also by saying thanks to everybody for providing public
testimony, especially folks that have never done this before. It's scary and, you know, you were brave to come here and give your testimonies. So thanks to the 16-year-old, thanks to the folks from IBEW and the SMUD folks, and thanks to the residents. I mean, it's really hard and we appreciate that you were brave enough to come and provide your testimony.

I am really heartened by the changes that were made between the last business meeting when we discussed this and this proposal. So I thank the staff and the SMUD folks for revising the proposal and coming with us with a proposal that I think better meets the spirit of community solar. And I think it behooves us on the Commission to think more as we do our revisions in 2022 what are we learning in terms of the definition of community solar and how can we integrate that into our regulations so that going forward, folks will have a better sense of what would be approvable.

I mean, the criteria as Drew laid out very well is pretty basic and simple. And from my perspective, this proposal does meet the criteria. And I would say it's on us as the Commission to really refine that criteria as we get more information so we get more specific about what -- what is community solar, how do we provide resilience benefits.
And I'm particularly interested in better understanding the implications for multifamily dwellings. I think we heard a lot of information about how single-family homes, there's already an economic incentive. They're going to make more money and when they resell the house -- we have a lot of evidence that that will likely be solar, will be a significant amount of rooftop solar on individual homes. I'm not convinced when we're talking about multifamily dwellings that that is going to be the case.

And I think we heard from affordable housing advocates that it will slow down the process and perhaps prevent multifamily dwellings from being built if we have this solar requirement. And at the same time, those are the very residents that we want to help. Because it's the renters of apartment buildings who pay utility bills who are going to benefit. Those residents are most vulnerable to price fights and to, you know, shutoffs due to not being able to pay their bills. So how do we make sure that we move forward in a way that brings all Californians along and especially our most vulnerable.

So I think as we look at further analysis, that's a piece that we should really evaluate is, is there an impact on affordable homes? What does this mean in terms of lower-income residents being able to benefit? And are
there additional programs that we need around financing to ensure that those benefits are spread to all communities.

So thank you to all the staff who worked so hard. Thanks to Commissioner McAllister who has worked so hard on this. And I think we do have a much better proposal and I'm looking forward to supporting it.

CHAIR HOCHSCHILD: Great. Thank you.

Well, let me just say, you know, our mission as an agency is to build a clean energy future, to get to a get to 100 percent clean energy grid, fully decarbonize and really lead the way.

I'm incredibly proud, by the way, of what's happened over the course of the last year. So SB 100 went into effect exactly a year ago and during that time, you know, we had New York, Wisconsin, Connecticut, Nevada, you know, New Mexico, all the other states. We have now 30 percent of the population of the United States living a state that's committed to get to 100 percent clean energy future. And this is a part of that.

I will say that, you know, I think a fair criticism of the Energy Commission, a fair criticism of me, is that we have not fully flushed out what does the community solar actually need. And I think that, you know, was in part because we were focused a lot on the rooftop initiative. But it was very much part of the intention that it would
always be this option.

And the whole policy to me was adopted with the sort of common sense off-ramps. If your house is shaded, what's north facing. You know, if it's not cost effective in the case of Trinity, you get an exemption, but that there would be this alternative compliance. That was built into the policy.

I do regard this proposal from SMUD we're voting on today, which I will be voting in favor of, as significantly improved from what we heard a few months ago. The principal critiques that I heard there wasn't a commitment, that the project would be new. Now that commitment's been made. The value proposition was criticized being too low, that has been doubled. There wasn't a commitment that all the projects for these community solar project would be local, in SMUD territory, that commitment's been made. Or that the projects would be below 20 megawatts. And that commitment's been made.

The reality of where we are in the market today is we last May we hit a million solar roofs. We're adding about 12,000 solar roofs a month all of last year. That number's increased to 20,000 a month now with the solar mandate. So even under the worst case scenario, it's still a very significant net increase in solar roofs going into the market in California.
I will say, with respect to SMUD, I do share Commissioner McAllister's concern, it wasn't a public hearing that you held to get this kind of feedback. I felt honestly the Energy Commission kind of became the hearing room for SMUD and that is unfortunate. I actually think many of the changes that were made, you know, that could have been vetted and done, you know, in a SMUD process prior to coming to the Energy Commission.

But with that said, I really do want to compliment SMUD on the progress. I do regard it as a subsequently significantly improved proposal. I will say that, you know, one request I'd like to make staff in concert with Commissioner McAllister that we get a market report in a year and really focus on what developments are actually happening. We need to stay very tuned to this.

What we are voting on today is for this code cycle. Okay. I don't want to have anyone be under the misimpression that this is all set in stone for all of eternity. This is a process that can be tweaked as needed. And, you know, the bottom line is we have a White House right now that is in retreat on the issue of climate. Right? We know that, we see that. We're doing crazy things as a country, withdrawing from Paris agreement. Really the only country in the world that's done that trying to revive coal power at a time when, you know,
everyone else is trying to move off of coal. You know, even undoing policies like mom and apple pie policies, like EnergyStar program. Okay, that's the world we're in right now.

And so California does have to step up and lead boldly at everything you do. And really the principal goal to me is to make the whole system successful and that means rooftop, that means community scale, that means utility scale. It means how the pieces fit together in energy storage. It means intelligent charging protocols for EVs. This whole system because we are a model for the world.

And we need to remember that our state has an incredible power of being this megaphone and an incubator. The modern solar energy globally was born in our state. Ed Smeloff was here who's instrumentally in that the first utility scale solar projects in the world were done here in SMUD territory. The first utility scale wind projects in the world. The electric vehicle industry born in California. Every single automaker in the world now, every major automaker that's developing electric option, that is because of Tesla, right? California come -- so the very first energy efficiency codes that standards globally were born here.

And this is a legacy I think we all feel the weight of. We have to keep pushing the envelope and keep being
that beacon and that bright light. And keep our eyes on how do we keep the whole system successful.

So I am going to vote in support of this. I want to thank Commissioner McAllister for all your hard work and that of your staff.

And with that, I welcome a motion on the item.

COMMISSIONER MCALLISTER: All right. Well I guess I'm making the motion. All right, I'll move Item 11.

CHAIR HOCHSCHILD: Okay. Is there a second?

VICE CHAIR SCOTT: Second.

CHAIR HOCHSCHILD: Second by Vice Chair Scott.

All in favor say aye.

(Ayes.)

CHAIR HOCHSCHILD: All right. That motion passes.

We're adjourned. Thank you.

(The Business Meeting adjourned at 3:51 p.m.)

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REPORTER’S CERTIFICATE

I DO HEREBY CERTIFY THAT THE TESTIMONY IN
THE FOREGOING HEARING WAS TAKEN AT THE TIME AND
PLACE THEREIN STATED; THAT THE TESTIMONY OF
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IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY
HAND THIS 4TH DAY OF MARCH, 2020.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of March, 2020.

_________________
Myra Severtson
Certified Transcriber
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